



## Overview of Evidence-based Social Communication Practices in Autism Spectrum Disorder

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Webinar



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## Learning Objectives

- Increase understanding of
  - how social communication is defined.
  - the social communication impairments seen in autism spectrum disorder (ASD).
  - best practices in assessing and treating social communication impairments in ASD.

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## What is Social Communication?

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## Social Communication

- Involves multiple, complex nonverbal and verbal behaviors including.....
  - Language & Communication
    - Receptive, Expressive, Speech
  - Social Skills
    - Basic, Relationship, Social Understanding/Cognition, and Social Behavior Regulation.
  - Social Competence
    - Use of appropriate language and social skills in context.

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## Social Communication & ASD

- Social communication skills vary by age and context.
  - Social 'rules' or expectations typically align with the age of the individual and the specific context he/she is participating in.
    - Social competence.

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## Social Communication

- Social communication skills by age.
  - Early Childhood
    - Eye contact, compliance, observing others, identifying familiar people, imitating.
  - Childhood
    - Joining in a group, turn-taking, brief reciprocal exchange, pretend play, coping skills.
  - Adolescents/Adulthood
    - Topic maintenance, asking a friend out/dating, self-advocacy skills, managing feelings such as anger, coping, and problem solving.

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## Social Communication

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## Implications

- Social communication impairments can have a negative impact on an individual's well-being and quality of life.
  - Bullying
  - Social isolation and/or rejection
  - Emotional problems
  - Legal problems
  - Less than expected performance outcomes
    - Social competence issue.....

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## Social Communication Impairments in ASD

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## Impairments

- Nonverbal communicative behaviors to regulate social interaction.
  - Poorly integrated nonverbal and verbal communicative behavior.
  - Atypical eye contact and use of gestures.
  - Reduced ability to understand the body language and gestures of others.
  - Limited, restricted facial expression and lack of nonverbal communicative behaviors.

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## Impairments

- Social-emotional reciprocity.
  - Failure to initiate and/or respond to social interaction.
  - Impaired conversational abilities.
  - Reduced sharing of interests, emotions and emotional expressions (affect) with others.

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## Impairments

- Developing, maintaining, and understanding relationships.
  - Difficulty adjusting behavior for different social situations.
  - Difficulties in imaginative play.
  - Difficulty making friends or lack of interest in forming peer relationships.

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## Associated Impairments

- Language & Speech Impairments.
  - Receptive understanding.
  - Expressive abilities.
  - Communication forms.
- Atypical Speech.
  - Echolalia
  - Prosody abnormalities
  - Pronoun reversal
  - Syntax and phonology

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## Evidence-based Practice

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## Overview

### Assessment & Evaluation

- Language & Communication
- Social skills
- Social Competence
- Context(s)
- Monitor Progress/Response to intervention

### Intervention & Generalization

- Structured/Adult Directed Methods
- Naturalistic/Peer Mediated Methods
- Narrative/Story-based Methods
- Combination Methods

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## Overview

- Assessment: *Ecological Assessment*
  - Describes the individual's social communication levels and contextual demands=intervention targets.
- Intervention
  - Develops skills for use in various contexts.
- Generalization of Skills
  - Specific supports to assist in applying skills in context.
- Monitoring Progress
  - Periodic assessment to determine if the individual is responding to the intervention.

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## Assessment

### *Ecological Assessment*

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## Ecological Assessment

- Evaluates the individual **within context** to determine what the social demands are and what skills the individual needs to be successful in that context.
- Identifies what areas are in need of intervention.
- Areas to assess
  - Language & Communication\*
  - Social Skills
  - Social Competence

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## Methods of Assessment

Method	Assessment Areas
Norm-Referenced	Language & Communication; Social Skills
Semi-Structured Interview	Social Competence
FBA	Language & Communication, Social Skills, Social Competence
Observation	Language & Communication, Social Skills, Social Competence
Rating Scales	Social Skills, Social Competence
Curriculum-Based	Language, Social Skills
Performance/Criterion-based	Social Skills, Social Competence

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## Assessment Considerations

- Select measures that are appropriate for the individual you are working with.
- You should consider.....
  - Age
  - Developmental level
  - Language level
  - Communication level
  - ASD symptoms
  - Context(s)

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## Intervention

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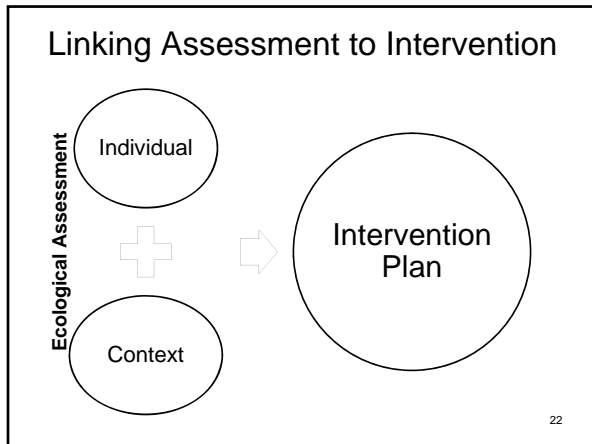
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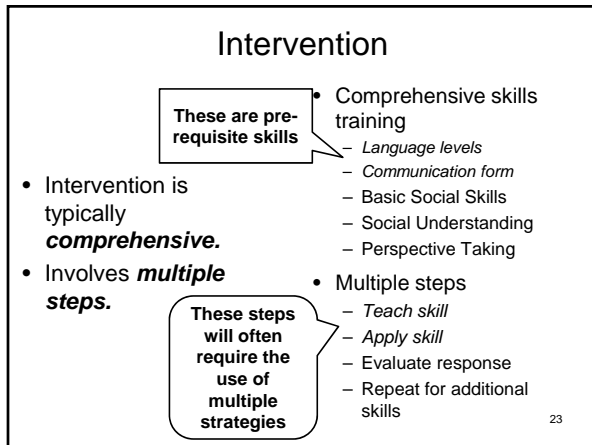
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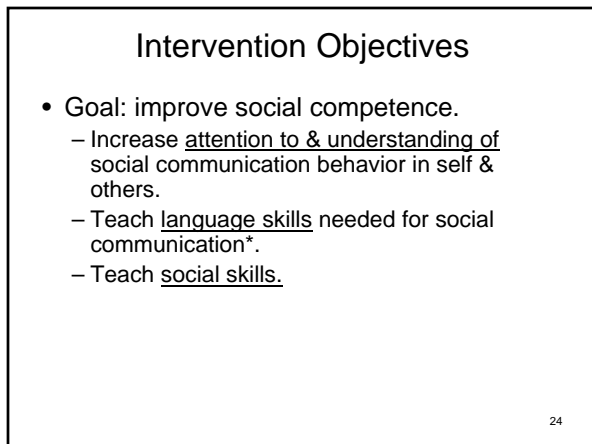
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## Intervention Methods

- There are a wide variety of evidence-based methods.
- Several broad areas:
  - Structured/Adult Directed
  - Naturalistic/Peer Mediated
  - Story-based/Narratives
  - Combination Approaches
- Assessment data will assist with selecting the most appropriate method/methods.

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## Structured Methods

- Discrete Trial Teaching (DTT).
  - Typically used for teaching vocabulary/language needed for social communication\*.
  - Target behavior is objectively defined.
  - Specific error correction methods are used.
  - Multiple learning trials build fluency.
  - High rates of reinforcement to maximize learning.

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## Structured Methods

- The DTT sequence has 5 steps...
  - Gain the individual's attention.
  - Deliver the instruction.
  - Wait a few seconds (3 to 5) for a response.
  - Error Correct if an error is made OR Reinforce if the response was correct.
  - Record performance data.
- This sequence is repeated for multiple trials (10 to 20 often) for maximizing learning and fluency in performance.

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## Structured Methods

- An example of using DTT in social skills intervention.....
  - Skill: Greeting Someone
    - Target Response: 'Hi'
      - Instructor: "Say, 'hi'"
      - Jim: 'hi'
      - Instructor: "You said 'hi' (and delivers reinforcement).
        - » Records data.
        - » Repeats learning trial.

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## Structured Methods

- Direct Instruction
  - Typically used to teach social skills.
  - Explicitly instructs the individual on the skill and when and how to use it.
  - Five steps....
    - Individual is *instructed* on the skill.
    - The skill is *modeled* by the instructor.
    - The individual *practices* the skill.
    - *Error correction* and *reinforcement* are provided to ensure learning.
    - *Practice* exercises assigned for generalization.
  - Can include social scripts to promote generalization of skills.

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## Structured Methods

- Video modeling involves watching a videotape of a model (peer/adult) demonstrating a social skill or the individual with ASD demonstrating the skill (with any prompts removed).
  - Used in combination with Direct Instruction, except the video model replaces the live model.
  - Can be used to teach simple as well as more complex social behaviors.
  - Can be used to assist the individual to discriminate between a correct application of a skill and an incorrect application of a skill.

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### Naturalistic/Peer Mediated Methods

- Capitalize upon naturally occurring opportunities within context to prompt social communication.
- Methods include...
  - Natural Language Paradigm or Pivotal Response Training.
  - Peer Modeling to create opportunities for social communication in the natural context.
    - Peers are trained to provide social skills instruction and coaching for generalization.

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### Naturalistic/Peer Mediated Methods

- Peer mediated methods involve the use of peers as trainers and/or coaches.
  - Can be individual peers or network of peers.
  - This method can be used for initial teaching and/or for generalization of skills to the natural environment through peer coaches or a formalized Peer Network.
  - Assists with the development of social competence.

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### Naturalistic/Peer Mediated Methods

- Peers are trained on how to 'teach' social skills to an individual with ASD.
  - Peer(s) first observe the individual to familiarize him/herself on the interests and activities of the individual.
  - The direct instruction method is used to train the peer(s) to...
    - Gain individual attention.
    - Instruct on the skill.
    - Model the skill.
    - Coach the individual through the skill.
    - Provide reinforcement for correct use of skill.

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### Naturalistic/Peer Mediated Methods

- Peers are trained to facilitate the use of social skills during natural interactions (coach).
  - Through adult coaching, peers learn to....
    - establish eye contact and joint attention/joint activity.
    - comment on the individual's actions.
    - request information or an action from the individual.
    - respond to initiations and extend those to another action that sets the occasion for maintaining the interaction.
    - organize the interaction during various social situations.
  - Adult assistance is faded as the peer(s) develop the facilitation skills.

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### Naturalistic/Peer Mediated Methods

- Peer Social Networks can be established.
  - Identifying and training a group of volunteer students who would like to learn how to be a social skills coach.
  - Identifying which students will provide support during what part of the day.
  - Informing the student with ASD that there is a peer network set up to assist him/her with using his/her social skills.

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### Story-based/Narrative Methods

- Describe social context and skills needed for that context.
- Teaches social understanding/cognition.
- May teach perspective taking.
- Methods:
  - Social Stories™
  - Social Skill Stories

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## Story-based/Narrative Methods

- Social Stories™
  - Increase understanding of social situations.
    - Provides description of a specific social situation: setting, and relevant social cues.
    - Provides information on the perspective of others involved in the situation.
    - Provides guidance on the social skills needed for that situation.

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## Story-based/Narrative Methods

- Uses the following type of sentences:
  - *Descriptive*: factual statement describing the situation and the individual's involved.
  - *Perspective*: reactions, feelings, and responses of others involved in the situation.
  - *Directive*: description of the skill that will be needed and when it should be applied.
  - *Cooperative*: description of what other people's social behavior will be.
  - *Affirmative*: express the values or opinions associated with the situation.
  - *Control*: sentences written by the individual that can assist with using appropriate social behavior.

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## Example

### *Having a Conversation*

Having a conversation can be fun. I like playing with my friends and being with my family. They like talking to me about things they have done and places they have gone. Sometimes I like to hear about their experiences. My friends and family like it when I ask them about their experiences. I will try to ask my friends and family about their experiences. When I do I will

*Make eye contact  
Ask them a question  
Listen to their answer*

When I have learned more about their experiences I will make a comment like "That sounds like it was fun!" or "You must have been scared of that" or some other similar statement that shows my friends and family that I understand their experiences. I will learn a lot by having a conversation with my friends and family.

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## Story-based/Narrative Methods

- **Social Scripts**
  - Written (or picture/word format) script that provides the individual with the communication he/she will need for a specific social situation.
  - *Comic Strip Conversations* is a variation of this method and incorporates the use of simple drawings.
- Scripts are faded as the individual learns the specific communication needed for the situation.

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## Story-based/Narrative Methods

### Example Script

#### Script 1:

Caroline: "Hey Vin, how's it going?"

Vin: "Fine, busy with homework"

Caroline: "You want some help?"

#### Script 2:

Vin: "How was your birthday? What did you do?"

Mark: "Good, we went to Six Flags. It was fun!"

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## Story-based/Narratives

Comic Strip Conversation example:



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### Combination Methods

- Comprehensive Applied Behavior Analysis (ABA) program models.
  - Multiple methods are used to teach language, communication, and social skills.
  - Specific programming for generalization to promote social competence.
- Verbal Behavior training.
  - Applies ABA methods to teach language and functional communication.

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### Combination Methods

- Social Communication Emotional Regulation Transactional Support (SCERTS).
  - Multidisciplinary approach that focuses on building competence in social communication and emotional regulation within a family context to support social interaction.
- Cognitive Behavioral Therapy (emerging evidence)
  - Focuses on improving social skills and social competence.
  - May help with decreasing social anxiety.

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### Considerations

- Many individuals will require supports to assist with generalizing skills across contexts including...
  - Visual supports of social skill steps.
  - Prompt and reinforce procedures.
  - Activity Schedules with embedded social opportunities (**Joint Action Routines**).
  - Guidelines for using a social skill during a particular social situation (e.g., job interview).
  - Contingency management OR rule-based supports for reinforcing the target skill when used in context.

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General Overview of Two  
Common Training Sequences

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Teaching Children and/or  
Individuals with Intellectual  
and/or Language Impairment  
*Format & Training Sequence*

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Format

- Comprehensive skills development.
  - Language & Communication\* skills
  - Social Skills (imitation & play included)
- Multiple instructional methods
  - Discrete trial and direct instruction for skills instruction.
  - Training typically occurs in sequence.
  - Caregiver training and use of various naturalistic/peer methods are applied for generalization of skills to multiple contexts.

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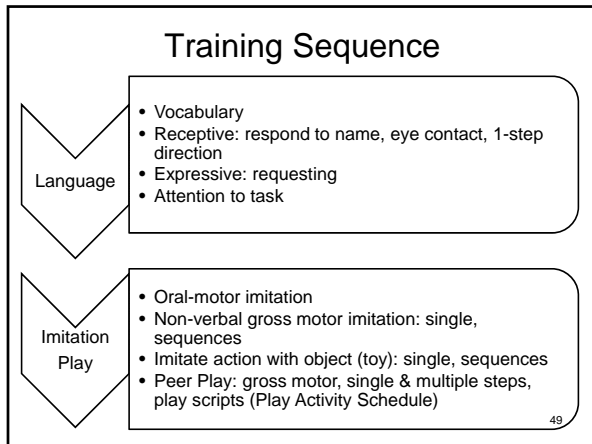
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### Training Sequence

<b>Social Skills Beginning</b>	Ask question for information Identify attributes Labeling & commenting Finding objects placed out of sight
<b>Social Skill Progressing</b>	Greeting Answer social questions Request item/activity from peer Reciprocate information (simple) Turn taking in reciprocal exchange (expanded) Play skills with peer Identify emotions in self and other
<b>Social Skills Advanced</b>	Respond to social initiation Ask social questions with scripts Conversation with scripts Appropriate responses to peer play initiation

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**Teaching Older Individuals  
and/or Those without Intellectual  
and/or Language Impairments**  
*Format & Training Sequence*

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## Format

- More variable than for intellectually or language impaired individuals.
  - Comprehensive
  - Targeted
- Assessment data will assist in determining the format.

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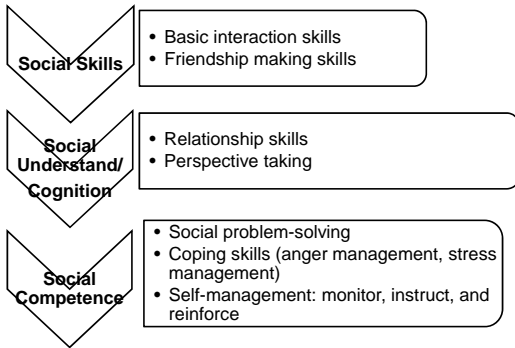
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## Training Sequence



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## Resources

- **Rochester Regional Center for Autism Spectrum Disorder (RRCASD).**
  - DVD on Teaching Social Skills Using Direct Instruction available on the website.
  - Contact information:
    - Website: [www.golisano.urmc.edu/rrcasd-nyautism](http://www.golisano.urmc.edu/rrcasd-nyautism)
    - E-mail: [rrcasd@urmc.rochester.edu](mailto:rrcasd@urmc.rochester.edu)
    - Tele: 1-855-508-8485
- **Autism Speaks:** website: [www.autismspeaks.org](http://www.autismspeaks.org)
  - This site contains various resources for social communication, social skills and other topics.

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## Resources

- To learn more about best-practices in social communication for ASD visit the American Speech-Language Hearing Association's (ASHA) website and review their guidelines.
  - <http://www.asha.org/docs/html/GL2006-00049.html>

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## Resources

- Select language & communication assessment measures.
  - Preschool Language Scale-4<sup>th</sup> (Zimmerman et al, 2002)
  - Reynell Developmental Language Scales-III (Edwards et al., 1999)
  - Sequenced Inventory of Communicative Development-Revised (Hedrick et al., 1984)
  - Test of Early Language Development (Hresko et al., 1999)

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## Resources

- Select language & communication assessment measures.
  - Clinical Evaluation of Language Fundamentals-Preschool (Wiig, Semel, & Secord, 2004)
  - Peabody Picture Vocabulary Test-4<sup>th</sup> (Dunn & Dunn, 2007)
  - MacArthur-Bates Communicative Development Inventories (3<sup>rd</sup>) (Fenson et al., 2007)

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## Resources

- Select language & communication assessment measures.
  - Test of Language Development-Primary:3<sup>rd</sup> (Newcomer & Hammill, 1997)
  - Test of Language Competence (Wiig & Secord, 1989)
  - Children’s Communication Checklist-2 (Bishop, 2006)
  - Comprehensive Assessment of Spoken Language (Carrow-Woolfolk, 1999)

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## Resources

- Select language & communication assessment measures.
  - Pragmatic Rating Scale (Landa et al., 1992)
  - Test of Pragmatic Language (Phelps-Terasaki & Phelps-Gunn, 1992)
  - Vineland Adaptive Behavior Scales 2<sup>nd</sup> (Sparrow et al., 2005).
  - Curriculum-based measures (see next slide for some examples).

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## Resources

- For a wide variety of social skills training resources visit the National Autism Resources website.
  - <http://www.nationalautismresources.com/autism-social-skills.html>
- The Skillstreaming series available at:
  - <http://www.skillstreaming.com/>
- The PEERS curriculum available at:
  - <http://www.amazon.com/The-PEERS-Curriculum-School-Based-Professionals/dp/041562696X>

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## Resources

- PECS products are available at
  - <http://www.pecsproducts.com/catalog/>
- For information about developing and using narratives such as Social Stories™ please search the term on any search engine as there are a wide variety of resources available.
- For information about Comic Strip Conversations and sample templates, visit the following website:
  - <http://atconsiderations-asd.wikispaces.com/Social+Interaction>

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## Question & Answer

A **Webinar Evaluation Survey** will be sent to your e-mail. Please complete to receive a **Certificate of Attendance**.

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