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Vanderbilt SLP Journal Club: Technology and Autism: A Refocus on Parent-Child Interaction

Anna Ausborn Kulaski, MS, CCC-SLP;
Daniel Shaw, MS, CCC-SLP

Moderated by:
Amy Hansen, MA, CCC-SLP, Managing Editor, SpeechPathology.com

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Vanderbilt SLP Journal Club: Technology and Autism: A Refocus on Parent-Child Interaction

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Learning Objectives

After this course, participants will be able to:

- Summarize the American Academy of Pediatrics guidelines for technology usage when counseling parents.
- List at least 3 parent strategies for utilizing technology to engage children with autism.
- Describe how the atypical sequence of development of nonverbal joint attention skills in young children with autism can impact use of technology

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Introduction

- 1.7% of children (1/59) in the U.S. are diagnosed with Autism Spectrum Disorder (ASD) by age 8.
- 36% of 2 year olds have a television in his/her bedroom.
- Children $\leq$ 8 years old average 2 hours, 19 minutes of daily screen media.
- Children with ASD tend to prefer screen/media time to the exclusion of other play activities.

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Before We Start…

- How many of you work with children with ASD?
- How often do you counsel parents about screen time?
- Are you comfortable counseling parents about screen time?
- Are you comfortable teaching parents how to use screen time to engage their children in interactions?

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Key Developmental Terms

- Joint referencing
- Joint engagement
- Joint attention
- Social referencing

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Is this joint attention?

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Joint Attention

- Definition for this presentation:
  - ASHA defines joint attention as “focus with someone on the same object or event”
  - shared enjoyment of an object or event with another person
  - involves coordinated and alternating attention between a person and the object or event
  - both people know that they are attending to the same thing (Sussman refers to this as “knowing together”)
  - the goal or motivation is *social attention* or *social interaction* NOT access to an object

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Joint Referencing

- Sharing attention on an object or event
- Developmental sequence:
  - 1) child learns to maintain eye contact,
  - 2) child responds when named called,
  - 3) child follows point toward object or event, and
  - 4) child looks toward named objects, verbal-only
- Developmental progression moves from following gestural cues to verbal-only cues
- Often mistaken for joint attention

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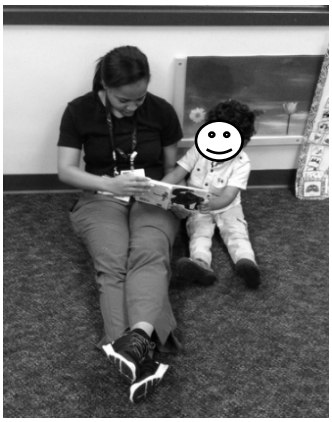
Joint Reference



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Joint Engagement

Child and partner engaged with the same object or event, but no overt acknowledgement of the other's presence

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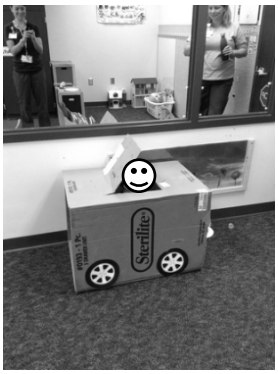
Social referencing

- Looking to see if someone is watching them; checking in to see if activity is ok or safe



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Attention: Dyadic vs. Triadic

- Dyadic
  - attention between child and object OR child and adult
  - Increasingly sophisticated use between 6-12 months
  - Lays foundation for social connections with others
- Triadic
  - Child shifts attention from person to an object/activity and then back to the person
  - This ability is necessary to the development of joint attention

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Prerequisites

What comes first?

- Knowledge/Awareness of others
- Engagement with others
- Enjoyment of the social world
- Shifting Attention

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Developmental Sequence

- Look at parents/caregivers, respond to emotional reactions, imitate facial expressions
- Manipulate objects, focus on person OR object (cannot shift attention) [dyadic]
- Smile at others, start interactions with others, persist when caregiver doesn't respond, motivated socially [triadic]
- Initiate and will persist if there's not an initial response

(Sussman, et al, 2013)

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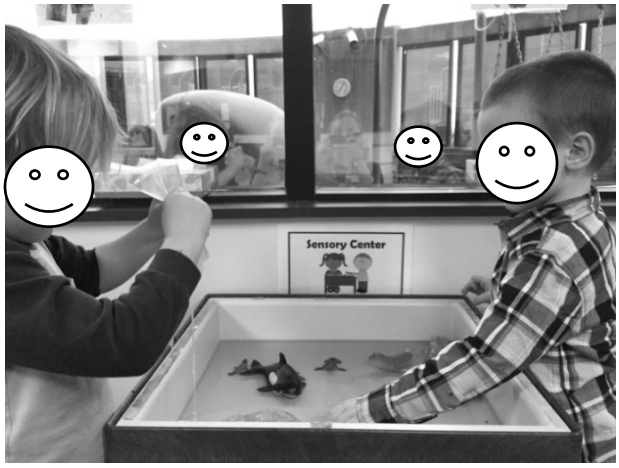
~~Children~~ with autism tend to focus on objects more than people.



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Tolerance will precede associative play.

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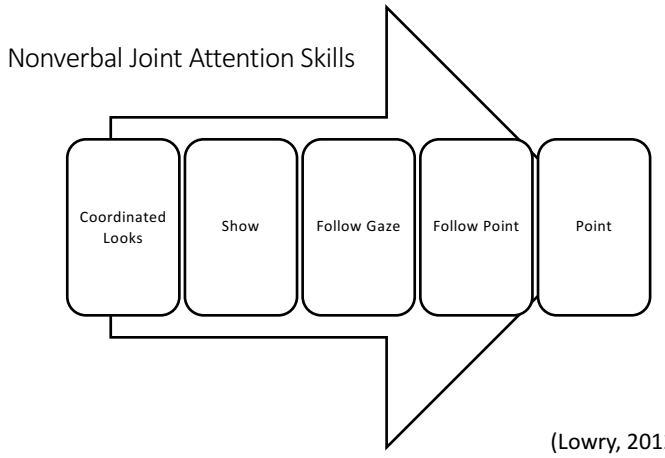
Typical Sequence of Acquisition



(Lowry, 2012)

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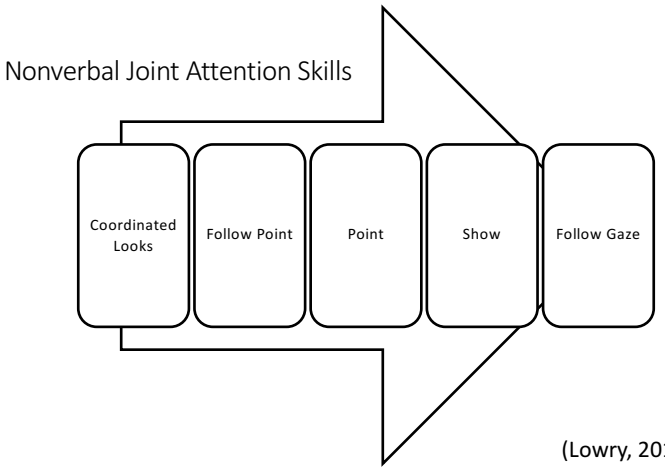
Atypical Sequence



(Lowry, 2012)

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AAP Technology Guidelines

- < 18 months: video-chat only; no independent use;
- 18-24 months: may introduce high-quality programs/apps; no independent use;
- 2-5 years: ≥ 1 hour of high-quality programming per day; no independent use;
- Keep bedrooms/mealtimes/parent-child play screen free;
- No screen time 1 hour before bedtime;
- Turn off devices not in use;
- Avoid using media to calm children;
- Create a Family Media Use Plan. (www.healthychildren.org/MediaUsePlan)

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Strategies

- Focus on
  - Content: quality programming is associated with better language outcomes if child understands the program
  - Context: What is happening around child while viewing the screen?
    - Engage the child when s/he looks at a screen
    - Relate the information to child's experiences
    - Bring information from the screen to real life
  - The individual child: Set limits based upon child's age, interests, skills, and abilities. Continue to evaluate and adjust screen time limits accordingly.

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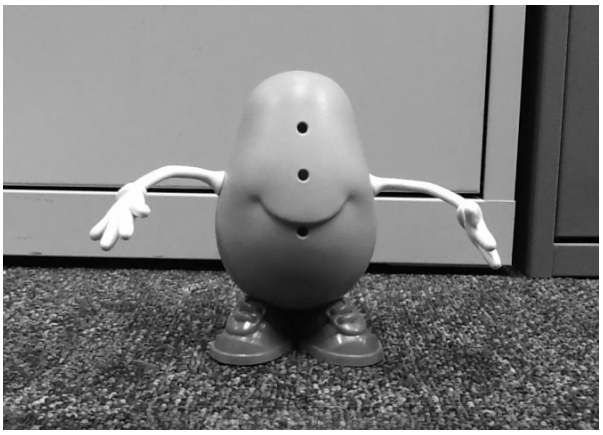
Make Your Own Videos to Teach Specific Skills/Tasks



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Ways to Reduce to Screen Time

- Turn off screens when not in use.
- Create screen free times during meals, snacks, and bedtime.
- Turn off screens 1 hour before bedtime.
- Set a timer.
- Sabotage access (i.e. hide remotes, lock screens).
- Avoid screen use at predetermined times.

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Alternatives to Screen Time

- Follow child's lead and provide highly enjoyed items/actions
- Blow/pop bubbles
- Colour/draw/paint
- Go to the park
- Teach child how to help with household chores
- Teach specific play schemes (i.e. puzzles, block play, etc.)
- Sing songs/finger play
- People play (i.e. peek-a-boo, tickle game)
- Make edible messy play (i.e. peanut butter dough, peep dough)

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Naturalistic vs. Discrete Trial

- Potential concerns and/or limitations:
  - Adult-directed nature and tight stimulus control
  - Highly-structured nature and use of artificial reinforcers
  - Imitation taught in isolation rather than within naturalistic context
  - "Do this" – goal of JA is spontaneous, independent shifting of attention for a social purpose rather than a response to a verbal command
  - Addresses learning function of imitation but not social function
  - Is the child's attention functioning as a request? ("taking the form of RJA but not the function")

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Parent Factors

- Be fun, be interesting, give your child a reason to want to play with you
  - Why would child want to play with you if it's never want he/she wants to do?
  - Why would child want to play if it's never fun?
- Ways of being with your child
  - Be responsive to their utterances
  - Follow child's lead, less directive (more comments, fewer questions)
  - Be present: remove distractions such as phones, tablets, background tv
  - Face-to-face, in child's line of sight

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Parent Factors

- Consider "special times"
  - Adapted from Palin Parent Child Interaction
  - 5 minutes of technology-free play
  - Child chooses activity
- Don't get stuck on perfect, look for "better"

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References

- American Academy of Pediatrics (AAP). (2016). Media and Young Minds (policy statement). Pediatrics, 138 (5).
- Autism and Developmental Disabilities Monitoring (ADDM) Network. (2018). Community Report on Autism. Available at www.cdc.gov.
- Campaign for a Commercial-Free Childhood (ccfc). (2012) Selected Research on Screen Time and Children. Available at www.commercialfreechildhood.org.
- Cardon, T., Azuma T. (2012) Visual Attending Preferences in Children with Autism Spectrum Disorders: A Comparison Between Live and Video Presentation Modes. Research in Autism Spectrum Disorders, 6 (1061-1067).
- Common Sense. (2017). The Common Sense Census: Media Use by Kids Age Zero to Eight. Available at www.commonsense.org/research.
- Hanen Early Language Program. (2015). Creating Safe(r) Screen Time for Your Child. Available at www.hanen.org.

35

References

- Kasari, C., Gulsrud, A., Wong, C., Locke, J. (2010). Randomized Controlled Caregive Mediated Joint Engagement Intervention for Toddlers with Autism. Journal of Autism and Developmental Disorders, 40 (1045-1056).
- Koohi, Andrea Lynn. (2018). The Power of Turn-taking: How Back-and-forth Interactions Help children Learn Language. Hanen Early Language Program. Available at www.hanen.org.
- Ingersoll, Brooke. The Social Role of Imitation in Autism. Infants & Young Children, 21 (107-119).
- Lowry, Lauren. (2012). Delayed or Disordered? A Look at Early Nonverbal Communication Skills in Autism. Hanen Early Language Program. Available at www.hanen.org.
- Lowry, Lauren. (2015). E-Book or Paper Book – What's Best for Young Children. The Hanen Centre. Available at www.hanen.org.
- Lowry, Lauren. (2018). Encouraging Joint Engagement with Children with ASD. Hanen Early Language Program. Available at www.hanen.org.
- Lowry, Lauren. (2017). Making Sure Children Get Their Daily Dose of Language Nutrition. Hanen Early Language Program. Available at www.hanen.org.

36

- Lowry, Lauren. (2017). The Power of Parents in Autism Intervention. Hanen Early Language Program. Available at www.hanen.org.
- Mayo Clinic. (2016). Screen Time and Children – How to Guide Your Child. Available at www.mayoclinic.org.
- Shane, H., Albert, P. (2008). Electronic Screen Media for Persons with Autism Spectrum Disorders: Results of a Survey. Journal of Autism and Developmental Disorders, 38 (1499-1508).
- Zauche, L., Thul, T., Mahoney, A., Stapel-Wax, J. (2016). Influence of Language Nutrition on Children's Language and Cogntive Development: An Integrated Review. Early childhood research Quarterly 36, 318-333.

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Thank You!

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