

Communication and ASD

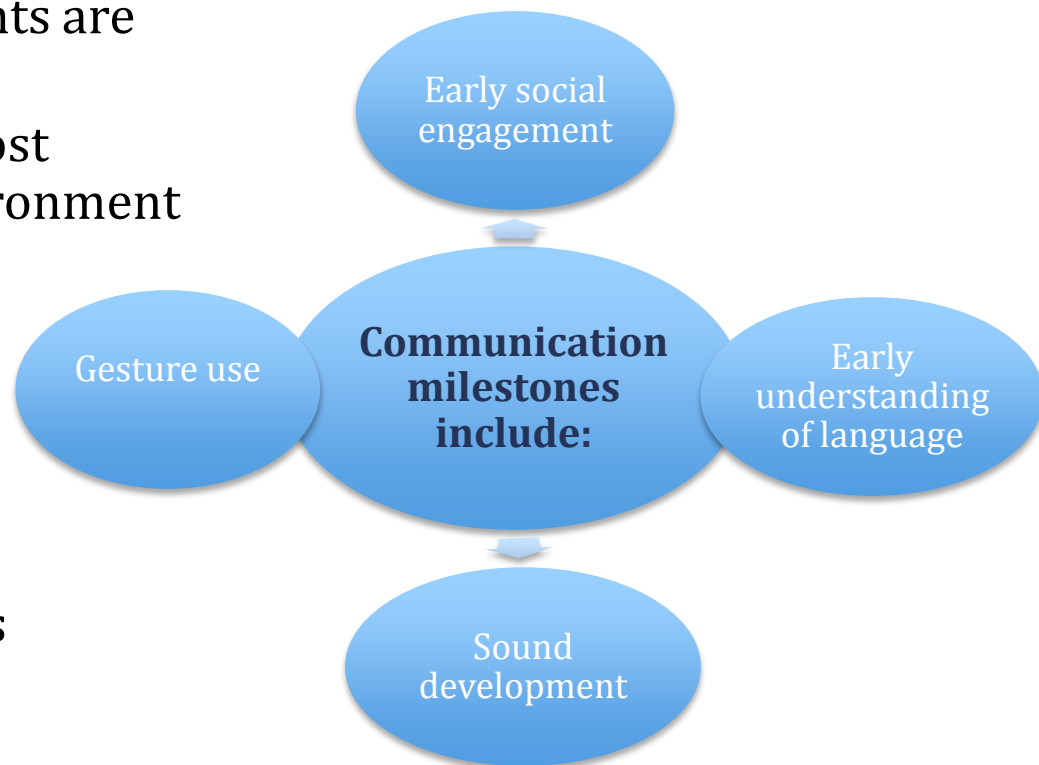


Els for Autism Foundation

Normative Social Development

Infants come into the world “pre-wired” for social engagement

- From the first days of life infants are profoundly sociable
- Human face / voice are the most interesting stimuli in the environment
- Early emergence of
 - Selective attention
 - Social engagement
 - Social reciprocity
 - Attachments
 - Social-communication skills
 - Relationships



*Many areas develop **together** from infancy through toddlerhood*

Nonverbal Capacity for Communication

Typical Development	Early Red Flags in Autism
Eye gaze, gaze shifting	Gaze aversion
Response to name	Lack of response to name
Orientation to speech	Limited response to adult speech
Pointing	Lack of Pointing
Affect sharing	Object focused
Caregiver referencing	Lack of/limited caregiver referencing
Imitation	Lack of imitation
Joint attention, response and initiation	Lack of/limited skills across these areas
Symbolic play	Lack of symbolic play after 18 mos

Looking beyond typical speech milestones, there is a basis for social communication before words come along



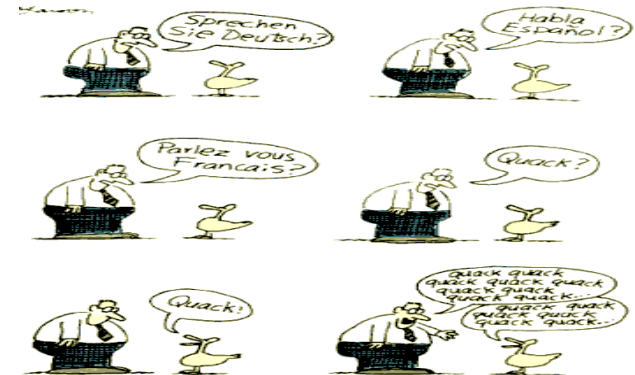
Important to Consider

SPEECH versus LANGUAGE versus **COMMUNICATION**

- Let's talk about all 3!
- **SPEECH & LANGUAGE DEVELOPMENT** is a primary area of delay in **early** autism symptomatology
- **COMMUNICATION** deficits are persistent in ASD **throughout development**
- **Assessment should be ongoing**

What is communication?

- Exchange of information and ideas between two or more people -- the message sender and the message receiver.
- In general, the *message sender* must determine exactly what information or idea he/she would like to exchange and send this information to the *message receiver*, who must make sense of and act on this information.
- The purpose and function of language



Components of Communication

- Communication is more than words. It is a combination of receptive, expressive and pragmatic skills. It occurs all day long, across settings, and across people.
 - Receptive Language = Understanding
 - Expressive Language = Use of Language (can be verbal, gestural, facial expressions, AAC, etc.)
 - Pragmatic Language = Combining understanding and use of language within a social context

What is language?

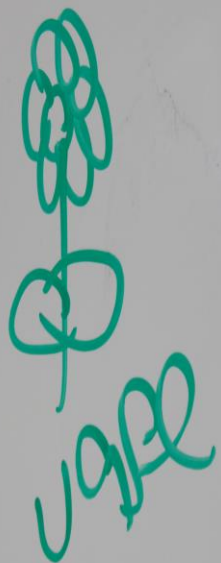
Expressive Language

- The symbolic system used to convey one's thoughts, attitudes, emotions and needs.
- Consistent, rule regulated, coded system

Receptive Language

Oral speech, signs, gestures, and written pictures and symbols that are processed and understood

In students with autism, receptive language skills may be more impaired than expressive language skills



Pragmatic Language

- Use of language within social contexts
- The ways can we send language to others...
 - Speech
 - Sign
 - Gesture
 - Written words
 - Pictures and other printed symbols
 - Facial expression
 - Body language
 - Vocal expression

Why do we communicate?

- Express our wants and needs
- Share information in order to be seen as an individual
- Develop social closeness in order to maintain relationships
- Conform to social conventions in order to be accepted





Joint Attention

- **Joint Attention** is the process of **sharing** one's experience of observing an object or event, by using & following gaze or pointing gestures. It is critical for social development, language acquisition & cognitive development...
(Eigsti, I)
- In other words: Joint attention is a child's way of pointing something out for the purpose of sharing.
- This is NOT requesting, and is purely a social behavior.

How do we communicate?

- Conventional
 - Verbal (speech)
 - Nonverbal (gestures/signs)
 - Augmentative and alternative communication (AAC) (Picture based systems, devices, etc.)
- Non-conventional
 - Behavioral
- Variable Communication Behaviors
 - crying

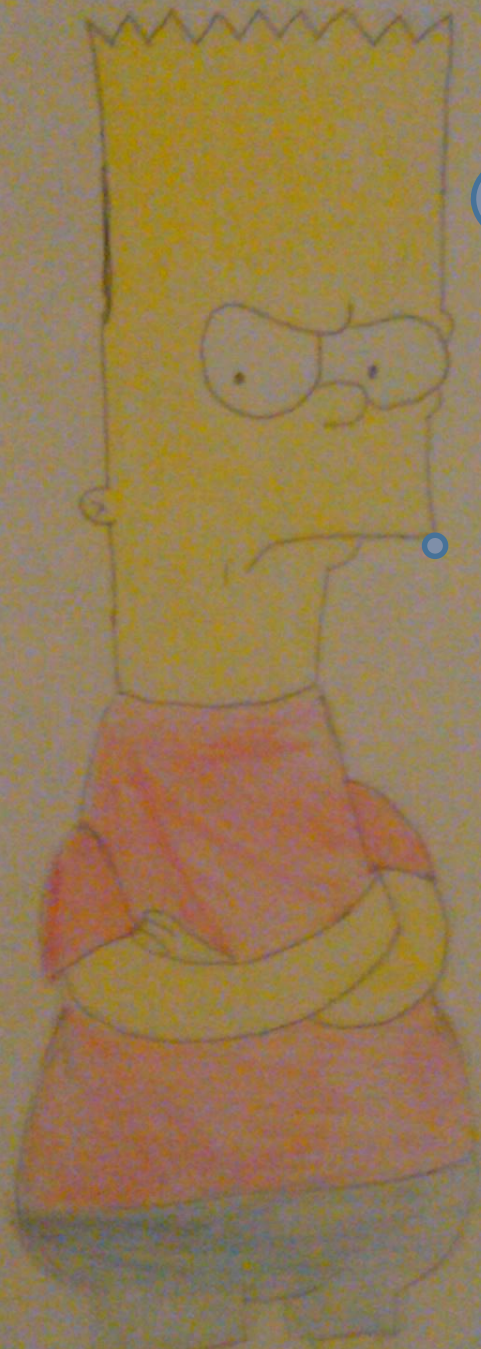
Understanding Communication...

- Individuals who are nonverbal don't understand and don't communicate.
- Individuals who have verbal language always understand and communicate.
- Individuals who have verbal language always can use language for social purposes.
- Individuals who are nonverbal have a low intelligence levels



Why do students with autism have difficulty communicating?

- Children with autism do not have the skills of typically developing children that assist in the acquisition of communication skills.
- For example:
 - Ability to maintain attention
 - Ability to shift attention
 - Ability to take the perspective of others
 - Over selective attention
 - Ability to use new experiences to relate to previous experiences
 - The ability to process auditory stimuli efficiently
 - Ability to think abstractly
 - Reciprocity
 - The understanding of communicative intent
 - Ability to imitate



Remember ...
BEHAVIOR is
Communication and
COMMUNICATION
is Behavior

Interventions to Enhance Communication Functioning

- Steps involved in assessment of and intervention for communication deficits:
 - Evaluate student's current skills and forms of communication
 - Determine the communicative function of the non-conventional behavior
 - Assess the student's symbolic level of understanding

How to Assess the Student's Communication: Skills and Forms of Communication

Observe how the student communicates:

- Greetings (hello & good-bye)
- Wanting food/drink
- Wanting activity
- Needing help
- Needing a break
- Affirmation (yes)
- Negation (no)
- Getting attention about his/her physical state
- About his/her feelings
- Humor
- Boredom
- Needing information
- Sharing information

How do we create communication opportunities?

- Communication temptations
- Language facilitation techniques
- Active participation

Communication opportunities provide intrinsic motivations to allow the learner to initiate and lead the interaction.

What are communication temptations?

- Structured situations to entice a variety of communication functions through gestures, body postures, vocalizations, pictures, AAC, and/or words.
- Environmental arrangements and incidental teaching opportunities
- Examples
 - Bubble jar closed tight
 - Cookies in a clear/see through jar with lid on
 - Wind up toys
 - Hands in pudding
 - Car rolling off a table



What are language facilitation techniques?

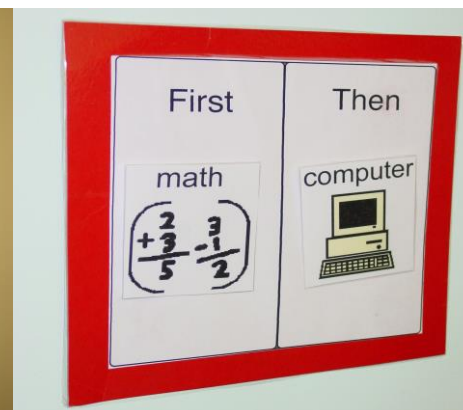
- Designed to facilitate spontaneous language and communication.
- Paired with communication temptations
- Involve:
 - Wait and signal
 - Modeling
 - Repetition
 - Following leads
 - Limited use of questions
 - Positive reinforcement
 - Use of commenting
 - Expansions
 - Scaffolding

What is active participation?

- Refers to providing many opportunities to allow the learner to be communicating an active in an activity.
- May involve having the student ask for items to set the table for snack or for an art project.

Visual Aids to Enhance Communication

- Choice boards
- First –then
- Self-help boards
- Schedules
- Specific activity boards



Augmentative & Alternative Communication (AAC) and Speech

- Total Communication, Verbal Behavior, and PECS all have research that support the development of speech in using signs or pictures
- We have NO research that indicates that any type of aug. comm. hinders the development of speech

NEED MORE RESEARCH!!!!

Why use AAC?

- Reduces frustration--makes communicating easy and reduces behavior problems
- Can be used to teach functional communication skills and prevent problem behaviors.
- Provides more opportunities for participation
- Produces positive effect on others' behaviors--they change the way they see the student
- Can improve the individual's understanding of other's communication
- Can have a positive benefit on individual's social and language development by affecting environment

Types of AAC

- *Unaided communication*
 - does not require any equipment external to the body
 - involves the use of symbols such as manual signs, pantomimes, and gestures.
- *Aided communication*
 - incorporates devices that are external to the individuals who use them (e.g., communication books and VOCAs)
 - involves the use of symbols such as photographs, line drawings, letters, and words.

--Mirenda, 2003, p. 2

Picture Exchange Communication System (PECS)

- Make requests by exchanging pictures for items or activities requested
- Six phases
- Begins with teaching requesting
- Moves to commenting and labeling later
- Makes act of communication tangible



PECS

- Portable, but not always available
 - Interpretable to most partners
 - Efficient to use
 - Motor requirement is limited
 - Requires interaction in communication
 - May lend itself to being more user friendly and requiring less clinical skill than other methods to implement
-
- Pictures are not always available
 - Requires discrimination
 - Commenting steps are less researched

Electronic Devices

- Large variety of devices from small switches to computers
- Display alphabet, symbols, pictures, or combinations with voice-output
- Can use electronic voices or recorded voices
- Factors such as cost, durability, and portability vary with devices

Electronic Devices

- Portable
- Interpretable
- Efficient to use
- Limited motor response required
- No imitation required
- Durability
- Accessibility
- Discrimination of symbols required
- Don't require a communicative partner
- Gains others' attention
- Gives student a VOICE
- Increases people's expectations of them

Functional Communication Using a Single-Switch Device

Request



Comment



(Walch, Zangari, & Parker)

Multiple Switch Support for Story



Devices Set Up to Support Activities



(Autism Consortium)

Principles to Remember...

- Communication needs to occur throughout a child's whole world
- Teach across settings, people, and activities
- Communication and language cannot be taught through a set of isolated exercises
- Communication opportunities are key
- Communication is not a race...slow down, wait, show
- Active participation is essential during social interactions and predictable activities
- Visual supports and AAC support communication development
- Communication learning will often be through doing first then understanding

Robin Parker, 2003





ERNIE ELS
ELS FOR AUTISM

Thank you!!!

