

AAC Intervention: Developmental Disabilities



Developmental Disabilities

- About 1 in 6 children in the US had a developmental disability in 2006-2008.
- Ranging from mild (i.e., speech and language impairments) to severe developmental disabilities (i.e., cerebral palsy, intellectual disabilities)



Cerebral Palsy

- Results from a number of etiologies
- Affects motor skills
 - Hypertonia, hemiplegia, involuntary movements, Ataxia, etc.

Issues regarding AAC:

- Requires a team approach given motor difficulties
 - OT/PT
 - Vision & Mobility
- Balanced approach to intervention
 - AAC needs
 - Motor development training
 - Speech therapy
 - Academic instruction



Cerebral Palsy – Case Example

- 15 year-old young man with spastic cerebral palsy
- Participates in an inclusive program with additional specialty support (PT, SLP, AAC, etc.)

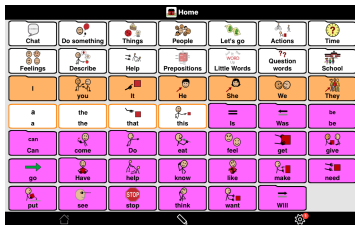
AAC System:

- Proloquo2Go with two-step scanning and a customized overlay.
- Using words, phrases, and sentences in combination with the QWERTY keyboard and word prediction
- Partner assisted scanning with a low-tech tool as a backup



Cerebral Palsy – Case Video

Intervention Example



Intellectual Disabilities

- Characterized by “significant limitations in intellectual functioning and adaptive behavior”
- Must be diagnosed before the age of 18

Issues regarding AAC:

- AAC has only been considered for this population since 1980's
- AAC teams need to pay special attention to:
 - Opportunity barriers
 - Relationship between communication & behavior
 - Diverse needs of the population (can't make assumptions – ALWAYS ASSUME COMPETENCE)



Intellectual Disabilities – Case Example

- 14 year-old young lady with Down's Syndrome
- Substantially separate program with an emphasis on reading, writing, and math

AAC System:

- PRC Vantage Lite with 60 Sequenced overlay
- Some customized pages to reduce navigation and support conversational turn taking
- Using 1-5 word phrases (telegraphic) in combination with the QWERTY keyboard and word prediction
- Device connected to computer and iPad for written output tasks



Intellectual Disabilities – Case Video

Intervention Example



Autism Spectrum Disorders

- 1 in 68 in the U.S.
- 40% don't develop speech
- 25-30% lose speech by 18 months

Issues regarding AAC:

- Start early and provide intensity (min of 25hrs/wk up to age 8)
- Address goals in social & developmental contexts
- Speech output
 - Attention-getting
 - Universally understood "social bridge"
 - Flexibility of SGDs



ASD – Case Example

- 5 year-old young boy with ASD (requiring substantial support)
- Substantially separate ASD program embedding principles of ABA

AAC System:

- PRC Accent 800 with a modified 60 One-Hit overlay
- Some customized pages to reduce navigation and support conversational turn taking
- Using 1-3 word phrases usually around food and basic needs
- Implementing a LAMP approach



ASD – Case Video

Intervention Example

Target Phrase	Relevant Segments	Response Provided	Enter in the appropriate column to show whether or not you modeled the phrase or the individual produced the phrase (not in video recording)									
I want more		Unprompted Prompted Model										
do more		Unprompted Prompted Model										
need help		Unprompted Prompted Model										
want eat		Unprompted Prompted Model										
want drink		Unprompted Prompted Model										
I want play		Unprompted Prompted Model										
play that		Unprompted Prompted Model										



Deaf-Blindness

- Significantly impairs one's ability to acquire information via visual and/or auditory channels
- Result of congenital or chromosomal etiologies

Issues regarding AAC:

- Population varies considerably – wide range of AAC options need to be considered
- Require systematic instruction
- Intervener needs to:
 - Facilitate access to environment
 - Support development of receptive/expressive skills
 - Develop a relationship

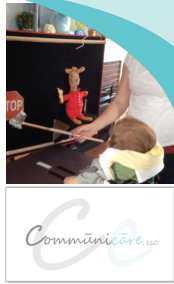


Deaf-Blindness– Case Example

- 2.5 year-old boy with CVI and complex communication needs
- Home-based, medically supported program

AAC System:

- Modified eye-gaze system
- Embedded real objects and symbols
- Incorporated visual attention techniques
- Icons for “stop” contrasted with a real object representing a preferred activity



Deaf-Blindness – Case Video

Intervention Example



Childhood Apraxia of Speech

- Congenital, neurological speech sound disorder that affects precision and consistency of speech movements.

Issues regarding AAC:

- AAC is often a secondary strategy behind speech intervention
- Multi-tier AAC approach:
 - Traditional AAC
 - AAC for supplementation
 - AAC for communication breakdowns
 - AAC for literacy and academics
 - AAC for practice



AOS – Case Example

- 5 year-old boy with a diagnosis of childhood AOS
- Partially included program with some instruction offered via discrete trial format

AAC System:

- Proloquo2Go with a core vocabulary overlay
- Customized to reduce navigational demands
- Grammar features turned on to “bring to life” language subtleties
- Total communication approach



AOS – Case Video

