Speech-Language Evaluations and Augmentative Communication

Julie Demes, MS, CCC-SLP
Overview

• What is a comprehensive speech-language evaluation?

• Speech-language service delivery and goals

• What is augmentative and alternative communication (AAC)?
Speech or Language Impairment

“... a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child’s educational performance.” (ISBE, 2009)
Qualified Evaluators

• Speech-Language Pathologists
  – ASHA Certificate of Clinical Competence
  – Master’s or Doctoral degree
  – Complete supervised postgraduate experience (9-12mos Clinical Fellowship)
  – Pass national examination
  – Professional development (30 hrs/3 yrs)
  – State licensure (required in IL)

• Supervised CFY-SLPs and SLPAs
Comprehensive Speech-Language Evaluation

• ASHA and WHO dictate standards
• Eval must include:
  – Case history
  – Student/family interview
  – Record review
  – Assessment of specific aspects of S-L
  – Recommendations
Specific Areas Assessed

• Oral Mechanism: structure, function
• Speech: sound production, intelligibility
• Language: receptive, expressive, pragmatic
• Voice: quality, pitch, loudness
• Fluency: stuttering, cluttering
• Cognition: typically assessed by teacher and/or school psychologist
Speech-Language Assessments

• Oral-Speech Motor
  – Oral Speech Mechanism Screening Examination
    • pass/fail screener
    • 5-78yrs
    • complete additional speech and/or feeding evaluations
    • refer to neurologist or other professional
  – Kaufman Speech Praxis Test for Children
    • Norm-referenced
    • 2-5:11yrs
    • Diagnose Developmental Apraxia of Speech
Speech-Language Assessments

• Articulation/Phonology
  – Goldman-Fristoe Test of Articulation
    • Norm-referenced
    • 2-21:11yrs
    • Diagnose Speech Sound/Articulation Disorder
  – Khan-Lewis Phonological Analysis
    • Norm-referenced
    • 2-21:11yrs
    • Diagnose Speech Sound/Phonological Disorder
Speech-Language Assessments

• Language
  – Preschool Language Scale
    • Norm-referenced
    • Birth-7;11yrs
    • Diagnose Language Impairments/Disorders
  – Clinical Evaluation of Language Fundamentals
    • Norm-referenced
    • 5-21yrs
    • Diagnose Language Impairments/Disorders
Speech-Language Assessments

• Voice
  – Voice quality, nasality, pitch and loudness are subjectively judged by SLP
  – Refer to pediatrician or otolaryngologist
    • Diagnosis of laryngeal pathology requires videostroboscopy

• Fluency
  – Stuttering Severity Instrument
    • Norm-referenced
    • 2-10yrs and up
    • Diagnose Stuttering and Determine Severity
Determining Severity

- Standard Score of 100 = average
- Standard Score of 85-115 = no services
- 1-1.5 Standard Deviations (SD) below mean = Mild Impairment
- 1.5-2.5 SDs below mean = Moderate Impairment
- >2.5 SDs below mean = Severe-Profound Impairment
Graphic Bell Curve

Percentile
Standard Score
Standard Deviation

EXTREMELY BELOW AVERAGE
Skills in this area are substantially below most at the same age/grade level

SIGNIFICANTLY BELOW AVERAGE
Skills in this area are significantly lower than most at the same age/grade level

BELOW AVERAGE
Skills in this area are lower than many others at the same age/grade level

AVERAGE
Skills in this area are similar to others in the same age/grade level
Approximately 68% fall into this range

ABOVE AVERAGE
Skills in this area are higher than many others at the same age/grade level

SIGNIFICANTLY ABOVE AVERAGE
Skills in this area are significantly higher than most at the same age/grade level

EXTREMELY ABOVE AVERAGE
Skills in this area are substantially above most at the same age/grade level
Severity and Eligibility

- ISBE Speech/Language Eligibility Criteria Matrix, (2009)
- Severity based on level of impact impairment has on individual’s ability to communicate or respond in school
  - Mild Impairment = minimally affects
  - Moderate Impairment = interferes with
  - Severe Impairment = limits
  - Profound = prevents
Service Delivery

- Mild = 15-30 mins per week
- Moderate = 31-60 mins per week
- Severe = 61-90 mins per week
- Profound = 91+ mins per week
Developing Goals

- Identify desired skill/behavior
- Level of support; quality
- Measurable; specify criteria
- Condition; Location
- Should be attainable within IEP year
- IEP goals must be linked to Common Core State Standards/New Illinois Learning Standards
Case Studies

• Assessment
• Impairment
  – Type
  – Severity
• Service Eligibility / Frequency
• Goals
What is AAC?

- AAC = Augmentative and Alternative Communication
- Any item that supplements or substitutes for verbal speech is considered ‘AAC’
- Variety of options: vocalizations, gestures, signs, communication boards, high tech speech generating devices
What is AAC?

- Supplements Speech: For those who are struggling to develop speech sounds or words; provides auditory feedback and speech model
- Replaces Speech: For those who can’t speak at all it can act as their “Voice” (very rare–seen more in adults than kids)
- Aids Understanding: For those who are learning language, pictures on the device may help them understand. Children are visual learners.
Communication Devices that Span All Users & Abilities

- Nova Chat-7
- DynaVox T10 with Compass software
- Vmax+ with EyeMax
- Accent 1000

Physical & Motor Challenges

Low  
Full Portfolio of Solutions to Meet Student’s Needs  
High
Who Can Use AAC?

• Anyone who struggles with language and speech is a candidate to try AAC
• THERE ARE NO PREREQUISITES FOR AAC
  • Can teach communication before means-end behavior established (Reichle & Yoder, 1985)
• AAC systems may be warranted for individuals with severe-profound speech sound and/or language impairments. (ISBE, 2009)
Research in AAC

• Research reveals that implementing AAC positively impacts
  – Language
  – Cognition
  – Literacy skills
  – Participation in social, educational and play environments

All of these are important developmentally to young children (Beukelman & Mirenda, 2005; Branson & Demchak, 2009; Drager et. al., 2003; Romski & Sevcik, 2005).
Why is AAC “developmentally appropriate”? 

• Children learn language through experiencing it  
  – Typically developing children babble and play with sounds before speaking their first words  
  – They talk and experiment with language; they are able to imitate to practice and learn  

• Children who cannot speak effectively are essentially unable to verbally “play”  

• They are unable to get the verbal ‘practice’ they need to develop effective receptive and expressive language like their peers
Why is AAC “developmentally appropriate”?

• AAC provides children the ability to:
  – Ask for favorite toys, books like other peers
  – Play developmentally appropriate games (e.g., tickling, peek a boo), sing songs, etc., to develop social relationships
  – Engage in pretend play with peers or adults
  – Ask questions, share feelings and thoughts
  – Learn preschool concepts such as color, shape, numbers, letter sounds, etc.
  – Express needs/wants (developmentally appropriate)
Why is AAC “developmentally appropriate”?

• AAC Enhances
  – All learning (as all learning has a language component); it can be used to introduce concepts
  – Language development (broad vocabulary, increasing to combining vocabulary to create complex messages)
  – Concept development
  – Functional Communication
  – Social Interaction (turn taking, engagement)
  – Foundations for literacy development (left to right, letter concepts)
  – Categorization
  – Sequencing
What types of AAC are available?

- Low Tech
  - Communication Books, Boards
  - PECS
  - Visual Schedules

  • These are all valid uses of symbols, but are limited in that they do not have auditory feedback
What types of AAC are available?

- “Light Tech” speech generating devices
  - Digitized (recorded) speech
  - Limited number of options available on each “level”; need to create paper overlays
  - Minimal options for experimentation with language, not a consistent model
  - NOT a prerequisite for high tech AAC devices
What types of AAC are available?

• High Tech AAC Devices
  – Have specific, developmentally appropriate language organization
  – Contains concepts at a variety of language levels
  – Highly customizable
  – Synthesized speech; consistent voice, therefore consistent model
What types of AAC are available?

- High Tech Devices
  - Generally Dynamic Display (changes when something is “pressed”)
  - Variety of sizes, getting smaller and smaller!
  - Language systems that are evidence based and support language and literacy development
  - “Durable Medical Equipment”- can be repaired for 5+ years, local support, tech support
  - Often, a variety of languages available
  - *** Typically covered by Insurance
What types of AAC are available?

• **Access Methods**
  - Simple Touch (most common)
  - Touch Enter/Exit
  - Keyguards
  - Scanning
  - Alternative Mouse/Head mouse
  - Eye Gaze
What does a language system look like?

- Core Vocabulary
  - Most common 100 words in English
  - “Sentence Builders”- generating and combining single words

- Contextual Social Vocabulary
  - “Topic Based Messages”/phrase based
  - Quick access to control social situations

- Visual supports
  - Schedules, timers, social stories
AAC Evaluations

• Comprehensive S-L Evaluation
• Team Collaboration
  – Mobility and Motor
  – Access Method
• Device Trials
  – Low-High Tech
  – Screen size and access
  – Language systems
  – 4-6 week extended trial
• Vary based on funding source
Available Resources

- Illinois Assistive Technology Project
  - Offers short term loan devices
  - (At times 10+ week waiting list for newer devices)
References

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References