Assessing DHH Students with Additional Diagnoses

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HELIX 2022

Hearing Screening For Children with Significant Disabilities

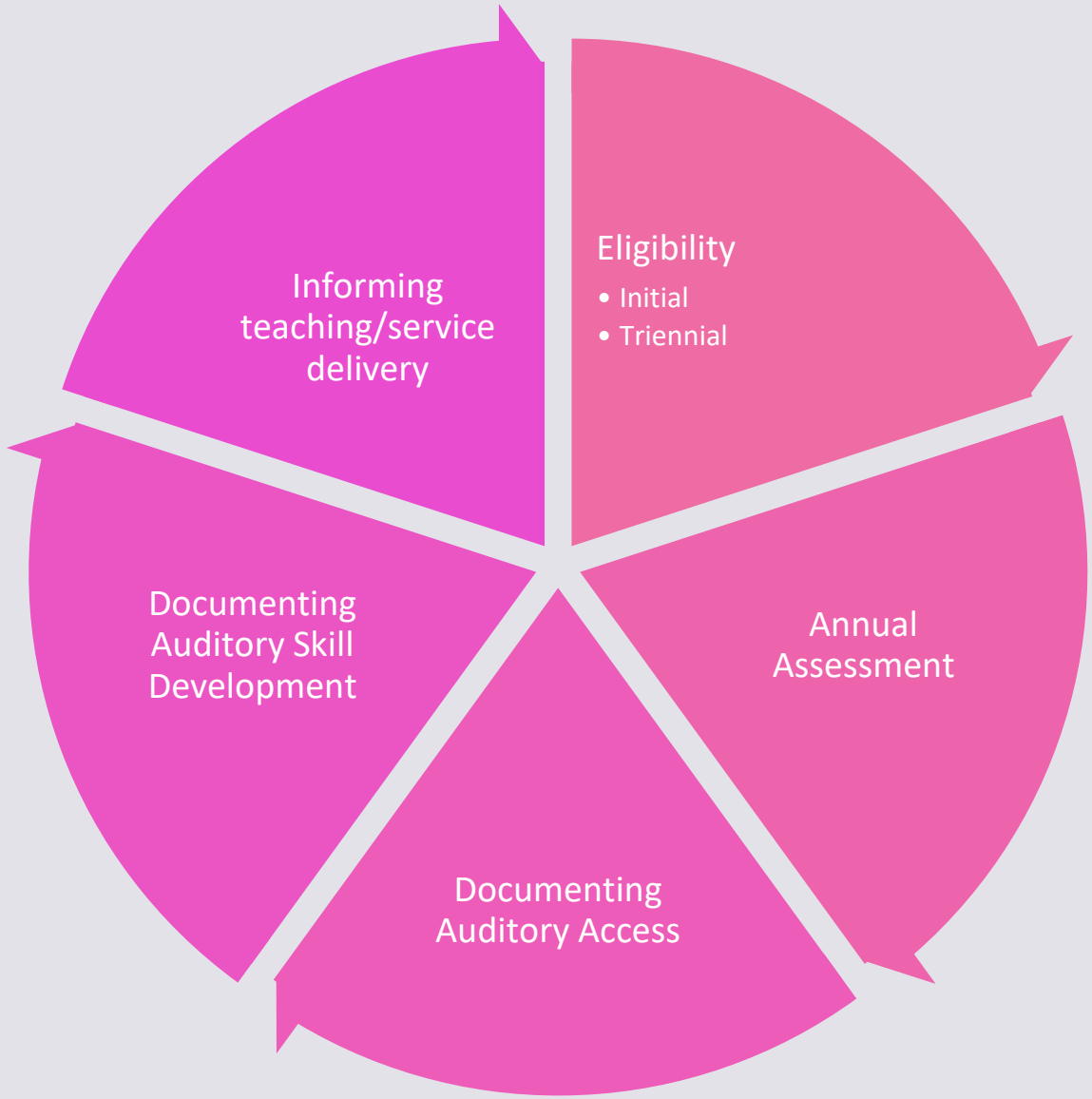
https://www.edaud.org/position-stat/19-position-10-21.pdf

Child Find (34 C.F.R. §300.111)
https://sites.ed.gov/idea/regs/b/b/300.111

Identifying and managing all children with reduced hearing levels regardless of their ability to participate in routine screening procedures is an educational right under IDEA.

Children who are unable to respond reliably using routine screening procedures should not be documented as “could not test” (CNT). This notation fails to satisfy Child Find directives and can result in failure to provide a free and appropriate public education (FAPE).

Purpose of Assessment



Additional Challenges

- “Medically Traumatized”
- Autism Spectrum Disorders
- Intellectual Delays
- Vision Disorders
- Deaf Blindness
- Motor Disabilities
- Behavior

Etiology

Etiology helps guide what we know about type/degree of hearing loss and trajectory of decline

Genetics

Over 400 diseases and disorders have hearing loss as a component

65% of hearing loss has a genetic basis

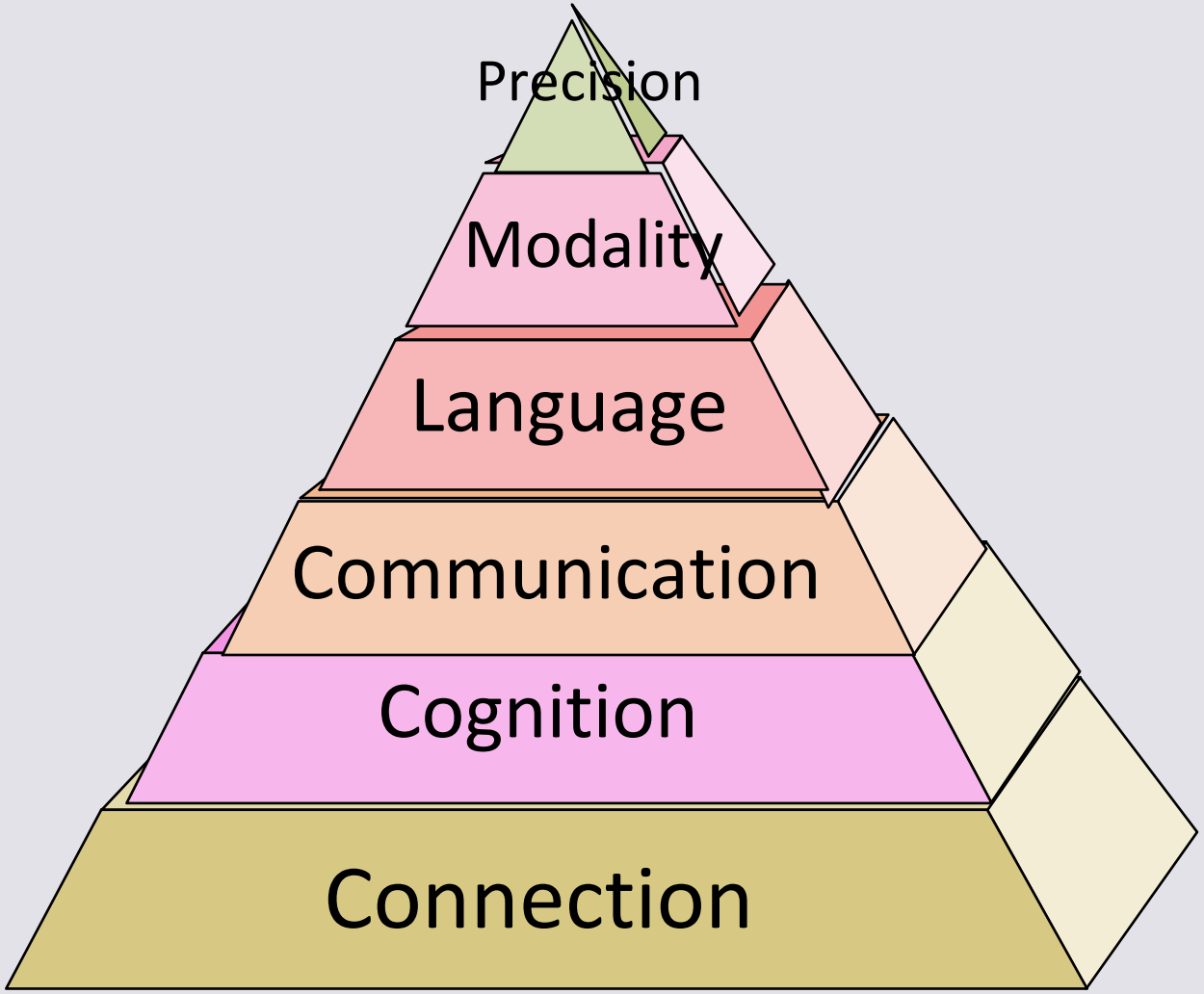
Genetic does not always mean hereditary

CMV

Under Identified

Actual prevalence is unknown


Language First
AEfron



Communication Priority Pyramid

Gathering Information

PREVIOUS TESTING

- UNHS
- Clinical assessments of hearing
- Developmental assessments
- Cognitive assessments
- Vision assessments
- OT/PT assessments

PRIORITIZE DATA NEEDS

- What do we already know?
- What are we trying to assess?
- How will the data be used?

OBSERVATIONS

- Classroom
- Social (lunch/recess)
- Therapy
- Video Observations

  Home

  Other

Desensitization

Become familiar to the child

Use of Social Stories, pictures, objects

Let child explore the device/room/materials

Hand under hand use of devices

Use a large mirror so child can see as you place equipment/materials in the ear

Demonstrate on peer/parent/staff/self

Use silicone ear to demonstrate

Use a Second Tester

- Speech Pathologist
- Teacher
- Para
- Parent

- Familiarity and trust are paramount!
- Practice, condition, fade supports, use reinforcers
- Familiarize with room, equipment, procedures

Conditioning

Cues, prompts, assistance to learn the behavior for testing	• May need to be hand-over-hand • Fade over first few attempts • May need to recondition when changing tones • Can use BC to teach skill
Can be social, food, tangible	• “Good job”, high five, cheerios, MMs, stickers
Continuous vs. intermittent reinforcement	• Intermittent actually works better, keeps attention longer

Levels of Auditory Skill Development

Detection

Perceive the presence/absence of sound

Discrimination

Knowing two sounds are same/different

Can occur at multiple levels

Identification

Recognizing a sound or word and giving the label

Comprehension

“Open set” recognition of ongoing spoken communication

Response Modes

- Speech
- Signs
- Print/text
- Pictures
- Switch
- Head turn
- Play Audiometry

  Any reliable/repetitive response

- Behavior Observation Audiometry

  Cessation of Behavior

  Change in Behavior

Communication Matrix

https://www.youtube.com/watch?v=-bdNVoNXOYY

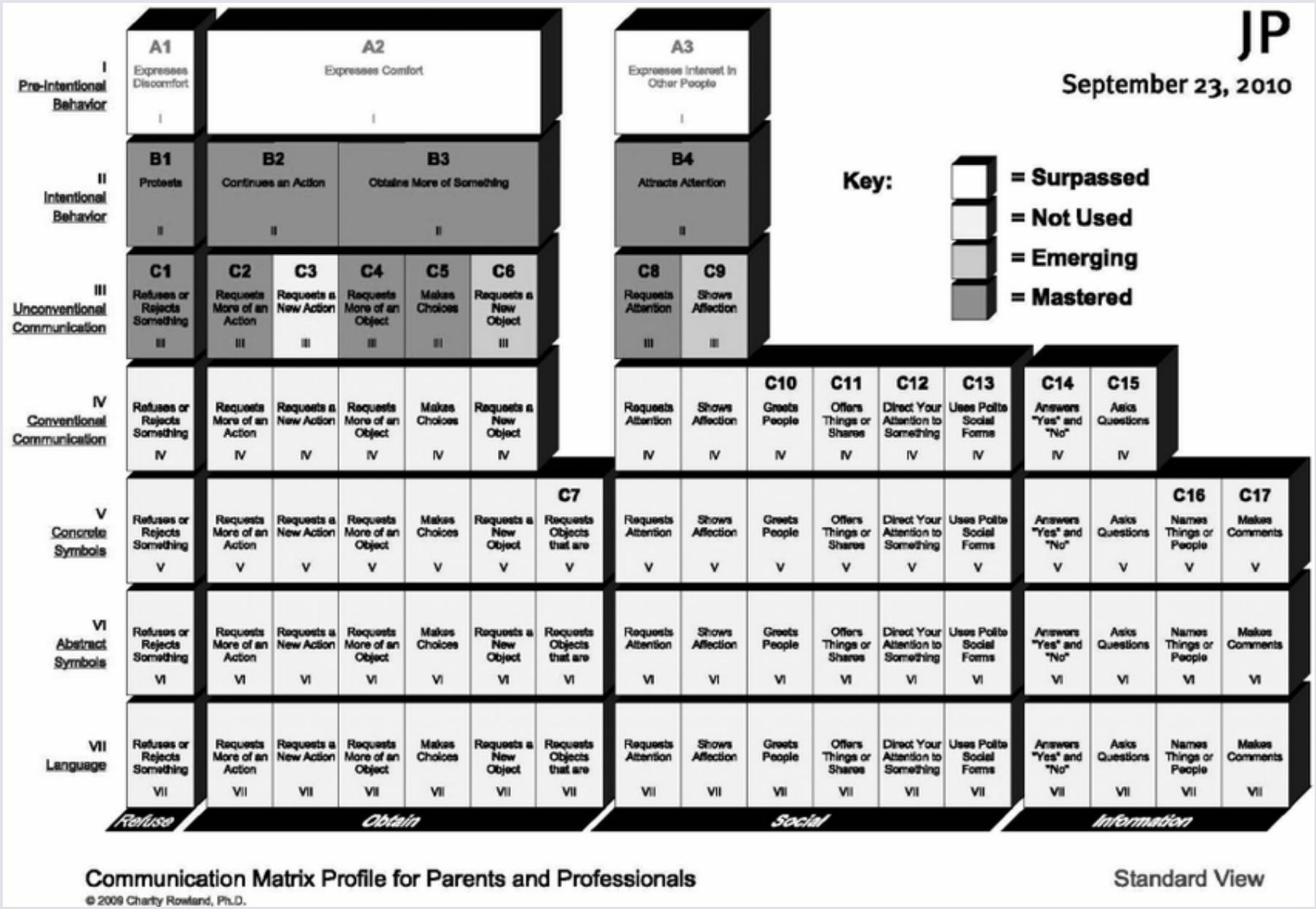
- Designed to assess very beginning stages of communicative intent with children with deaf-blindness and other severe disabilities
- Can be used with any language modality

  Signs, speech/vocalizations, PECS, AAC
- Much of the assessment looks at communication not “language”
- https://www.youtube.com/watch?v=PL4SBPv-fpY
- https://www.youtube.com/watch?v=RBg4D8Vdyj8
- https://www.youtube.com/watch?v=sMXJ2lDpOtk
- https://www.youtube.com/watch?v=cArW3nT42lY

Communication Matrix Communicative Levels

https://www.youtube.com/watch?v=5Jr2pW3CzfY

Level	Level I : Pre-Intentional Behaviors •Use of reflexive/reactive behaviors with no communicative intent
Level	Level II : Intentional Communication •Use of intentional operation on people/things with no “communicative intent”
Level	Level III : Unconventional Pre-Symbolic Communication •Use of body movements/vocalizations to communicate
Level	Level IV : Conventional Pre-Symbolic Communication •Use of intentional vocalizations/gestures and/or eye gaze
Level	Level V : Concrete Symbolic Communication •Use of gestures/pictures/symbols to communicate
Level	Level VI : Abstract Symbolic Communication •Use of speech/signs/print to communicate
Level	Level VII : Formal Symbolic Communication •Use of 2-3word combinations with syntax/grammar



Communication Matrix Profile for Parents and Professionals

Standard View

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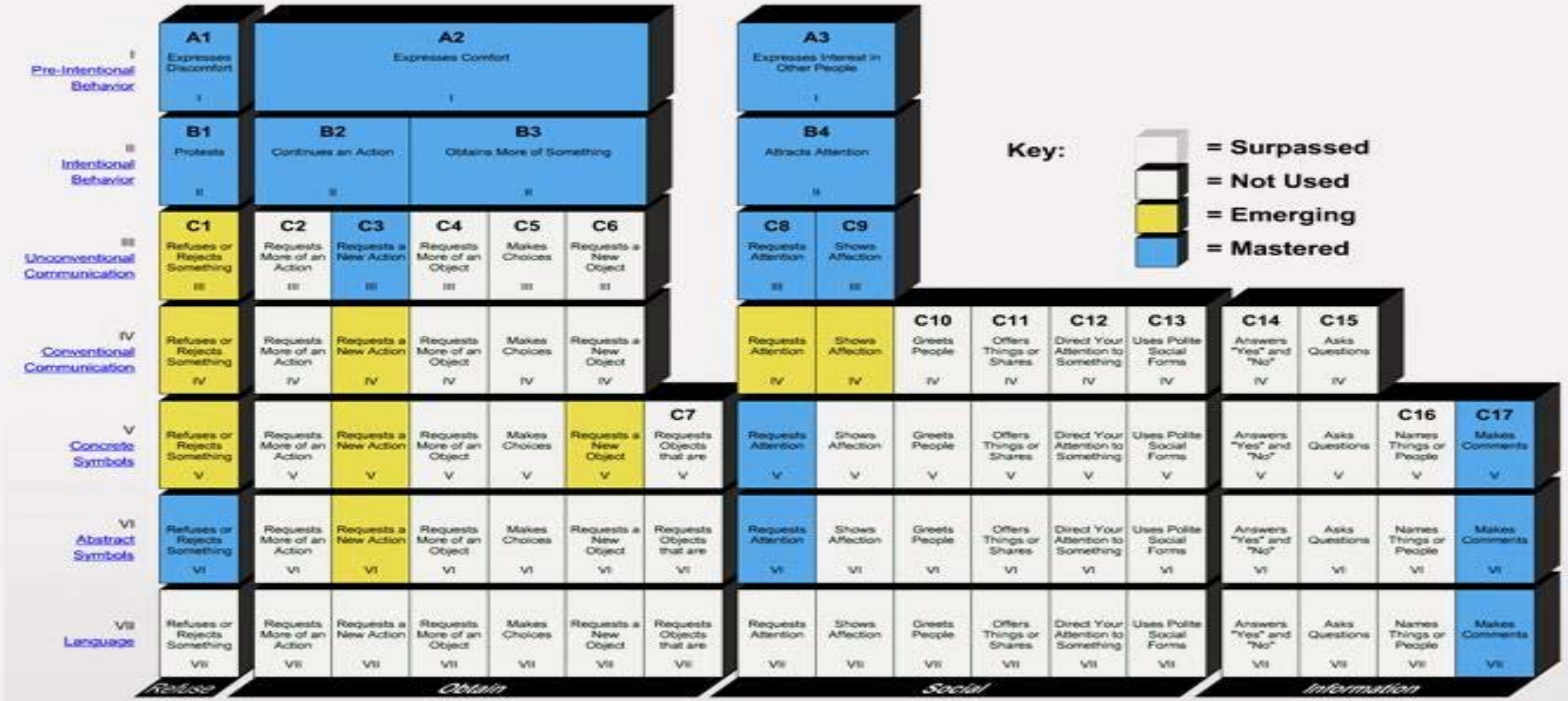

Communication Matrix Profile for Parents and Professionals

Standard View

Test Materials

Standard Test stimulus

Tones, NBN, Live/recorded speech

Standard Test Items

PBK, W-22, Nu-Chips, WIPI

Non-Standardized Testing

LING/LMH (6/10 sound test)

https://hearinghealthmatters.org/hearingandkids/2021/3245/

Body parts

SERT (Sound Effects Recognition Test)

https://auditec.com/2015/09/29/sert/

Figure 2 – The Ling, Madell, Hewitt (**LMH**) Test. (Additional phonemes are in red)

	Band 1 200-1000Hz VOICING	Band 2 1000-1500 Hz CONSONANT DIFFERENTION	Band 3 1500-3500 Hz CONSONANT DIFFERENTION	Band 4 3500 Hz + FRICATION
/u/	F1:300 Hz F2: 870 Hz		F3: 2240 Hz	
/a/	F1:730 Hz	F2: 1090Hz	F3: 2440 Hz	
/i/	F1: 270 Hz		F2: 2290 Hz F3: 3010	
/m/	250-350	1000-1500 Hz	2500-3500 Hz	
/sh/			1500-2000 Hz	4500-5500 Hz
/s/				5000-6000 Hz
/dj/	200-300 Hz		2000-3000 Hz	
/z/	200-400 Hz			4000-5000 Hz
/h/			1500-2000 Hz	
/n/	250-350 Hz	1000-1500 Hz	2000-3000 Hz	

Non-Standardized Testing

LING/LMH

- Each sound representative of a frequency range
- Can help estimate threshold levels
- Can be used to check aided function
- Can show reception or perception

BODY PARTS

- Can give estimates of speech perception
- Ear/hair, nose/toes, teeth/knee
- Can use second tester or Mr. Potato Head, doll/animal or self

Sound Effects Recognition Test

- Environmental Sounds Discrimination Test
- Four Pictures per page
- 3 Test lists of 10 items plus one practice page
- Can use to assess pattern recognition and/or sound discrimination
- https://auditec.com/2015/09/29/sert/

Speech Differentiation

Same /Different

Use Cards , Thumbs Up/Down, Nod/Shake Head

Different levels :

Monosyllabic vs bi-syllabic

Spondee words

Monosyllabic with diverse vowels

Monosyllabic with diverse consonants

Functional Listening Evaluation

- Hearing Assessment in Diverse Listening Situations

  Mimics the hearing experience in the classroom

  3 feet and 12 feet

  Quiet and competing noise

- Ideally performed in the classroom where the child learns

  Use that classroom at an “empty” time

  Use similar classroom (shape, size, building materials etc….)

  Use room child is expected to be placed in next school year

- Test materials can be varied depending on the age and skills of the child

  Open/Closed Single word lists, sentences,

- Used to inform decisions about personal amplification and HAT.

- **Add HAT, enforce HAT, purchase HAT, refit software for better access, new aids**

- **Used to inform teaching and communication choices**

- **Spoken language, Signing systems, picture exchange systems , AAC**

Questionnaires

***LittlEARS** *(Med-El) up to 24 months*

CHILD *Children's Home Inventory of Listening Difficulties*

MAIS *Meaningful Auditory Integration Scale pre-school and school age*

IT-MAIS *Infant Meaningful Auditory Integration Scale infant/toddler*

***PEACH** *Parent's Evaluation of Auditory-Oral Performance of Children*

Meant to be a conversation with parent, asking for examples of behaviors

ELF *Early Listening Function infant to preschool*

COW *Children's Outcome Worksheets ages 4-12*

DIAL *Developmental Index of Audition and Listening infant thru age 22*

Outside the Booth…collecting data

IT-MAIS

- https://www.advancedbionics.com/content/dam/advancedbionics/Documents/Regional/BR/AB_IT-MAIS_Resource.pdf

ELF

- http://successforkidswithhearingloss.com/wp-content/uploads/2017/09/ELF_Questionnaire.pdf

ELF LING

- http://successforkidswithhearingloss.com/wp-content/uploads/2011/08/ELFLING-procedure.pdf

FAPI

- http://www.tsbvi.edu/attachments/FunctionalAuditoryPerformanceIndicators.pdf

Functional Communication Profile-R

- https://www.youtube.com/watch?v=7ylVk9n5ne0
- Criterion Referenced
- No norms
- Ages 3 and older (thru adulthood)
- The Functional Communication Profile Revised (FCP-R) allows SLPs and special educators to evaluate and account for some of the unique communication skills in individuals with developmental and acquired delays across a broad age range. It addresses all communication possibilities including oral language expression.

Other Resources

- **Assessing Emergent Communication Skills (2017)**
- https://link.springer.com/content/pdf/10.1007%2Fs41252-017-0043-3.pdf
- **Improving “Non-Standardized” Assessments**

  Pre-assessment Planning

  Structured Sampling Tasks

  Reducing Bias of Informants/Reporters

  Training of Observers/Informants

  Use of LENA

  Recorded Eye Gaze Monitoring

  Video Recordings

- https://www.youtube.com/watch?v=FqauMqSjyKY
- https://www.youtube.com/watch?v=rw84fwau9E4
- http://www.icfcy.org/uploads/csicy.pdf
- This tool is based on the International Classification of Functioning, Disability and Health-Children & Youth Version, or the ICF-CY (World Health Organization, 2007).
- designed to make goal writing easier for teachers and speech-language pathologists who work with students who rely on augmentative and alternative communication (AAC)
- not an assessment, but a guide to organize your understanding of the impact of a student's communication strengths and limitations on participation at school and at home

Communication Supports Inventory - Children and Youth

Communication Plan

- Receptive vs Expressive
- Modality
- Efficiency
- Variety
- Dig deeply
- Teacher rate of Speech
- Use of visuals/context
- Classroom environment

  Multiple Talkers in the room

  Equipment Noise
- Classroom expectations

  Needs of other students

THANK YOU

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