

A graphic on the left side of the slide featuring a red background with a collage of images related to communication, including a person's face, a hand, and a speech bubble. The text "Communication Matrix" is written in a stylized font, and a yellow circle at the bottom says "For Parents and Professionals".

Communication Matrix 2 Part Workshop

Session 1 - Expressive
Assessment Tool &
Supports

Session 2 - Goal Writing &
Implementation Strategies

Presenter:
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Assistive Technology
Consultant
www.kellyfonner.com

morning

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Objectives & Disclosures:

Objectives:

1. Participants will be able to complete a matrix assessment for an individual student
2. analyze a matrix assessment profile for an individual student to describe their communicative function.
3. Participants will be able to search the resources in the Communication Matrix Community of practice site in order to identify ideas and activities to use in teaching new communication skills to a target student.

Disclosures

- ▶ The Presenter was a contracted coach for school based teams participating in the 5 year grant that developed the Community of Practice. The Grant ended as of December 2018. The Presenter is not employed by Oregon Health & Science University and does not receive financial support from activity involved with the Matrix.

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Philosophical Background

- Everyone can & does communicate
- School is an important base for recognition of developing communication throughout the day, not just in speech therapy
- Parents can assist us in “figuring out” how their child communicates with familiar & unfamiliar partners
- We need administrative & related services support to establish a building-wide view of communication importance

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What is the Communication Matrix?

- ▶ The Communication Matrix was designed to assess the expressive communication skills of individuals of all ages who are operating at the earliest stages of communication and who use any form of communication.
- ▶ www.communicationmatrix.org

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TARGET POPULATION

- The earliest stages of communication (0-24 mo. in typical development).
- Use any type of communicative behavior
- Augmentative and alternative communication (AAC)
- Pre-symbolic and more
- Any type or degree of disability.
- All ages.
- Do NOT already use some form of language meaningfully and fluently.

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The Need: Weaknesses of Many Assessments

- Accommodate speech only
- Don't address earliest stages of communication in sufficient detail to show progress
- May not probe for meaningful behaviors, as opposed to mere production of behavior
- Do not accommodate sensory or physical impairments
- Emphasize what the child CAN'T do

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Communication Matrix Focus on CAN and DO

- **What CAN the child do?**
Emphasis on the individual's strengths, not weaknesses.
- **What can the child DO with these behaviors?** Emphasis on the USES of communicative behaviors.
- **What does the child WANT to do?** What does s/he want to tell you?
- **Parent perspective is crucial.**

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Privacy



- No identifying information collected
- Information entered is stored in database
- IRB-approved privacy mechanisms

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Using the communication Matrix www.communicationmatrix.org

- Free
- Easy to use
- Available to all
- Encourages parents
- Encourages collaboration
- Generates scientific data

Privacy

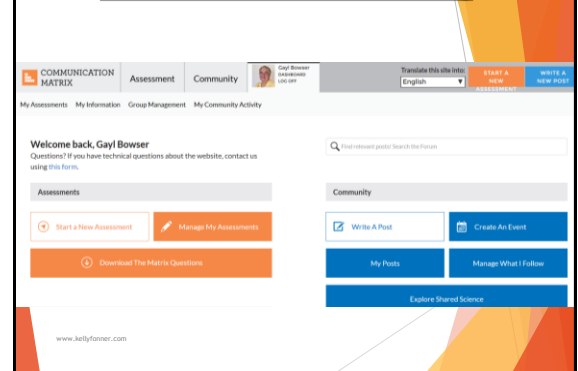
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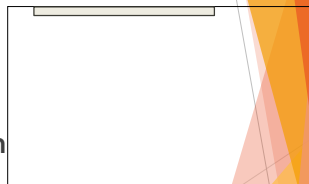
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Categories of Expressive Communication Functions (birth - 2 years)

- ▶ Refuse
- ▶ Obtain
- ▶ Social
- ▶ Information



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Communication Modes

Unaided strategies

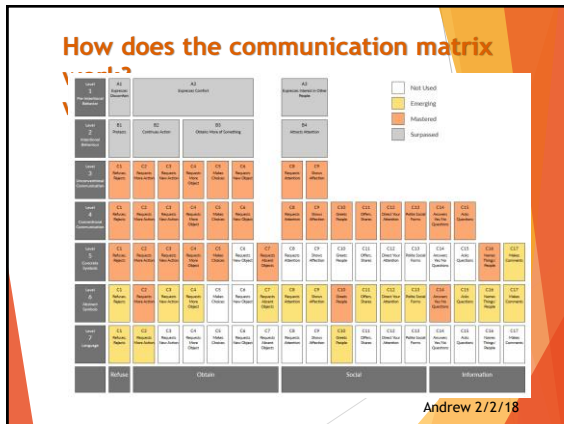
- Reflex
- Repetition of Action
- Eye gaze
- Head movement
- Body movement
- Vocalizations

Aided strategies

- Eye gaze to representations
- Reaching / Pointing to
- partner assisted scanning techniques
- Switch activation of symbol
- Dedicated AAC devices

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Communication Matrix: Assessment & Supports



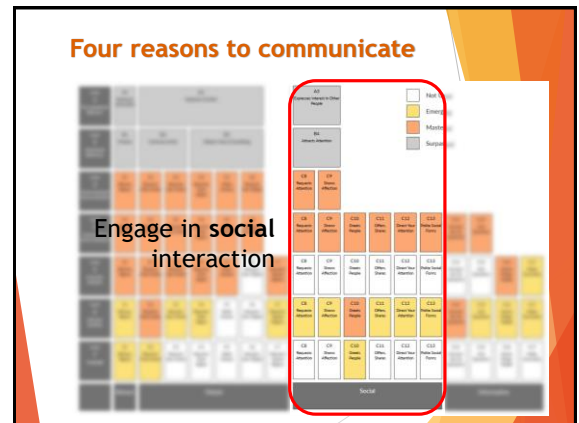
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Level 1: Pre-Intentional Behavior

- Behavior is not under the individual's own control, but it reflects his general state (such as comfortable, uncomfortable, hungry or sleepy).
- Caregivers interpret the individual's state from behaviors such as body movements, facial expressions and sounds.

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Communication Matrix: Assessment & Supports

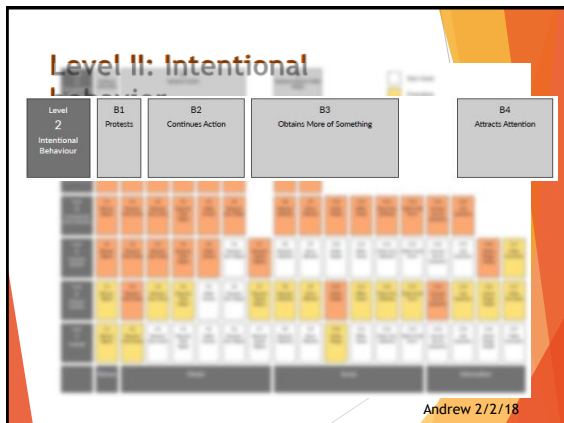


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Level II: Intentional behavior

- Behavior is under the individual's control, but it is not yet used to communicate intentionally. Individuals at this stage do not yet realize that they can use their own behaviors to control another person's behavior.
- Caregivers interpret the individual's needs and desires from behaviors such as body movements, facial expressions, vocalizations and eye gaze.

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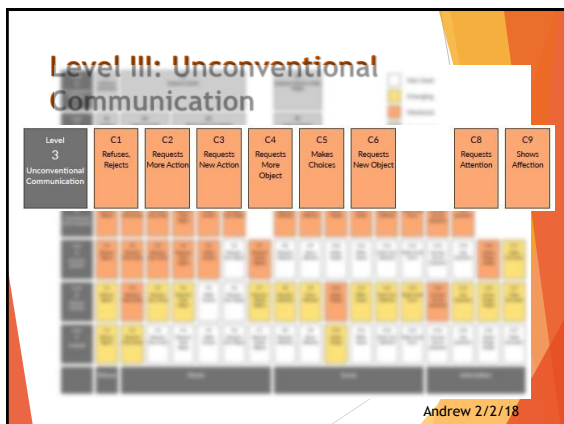


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Level III: Unconventional Communication

- Unconventional pre-symbolic behaviors are used intentionally to communicate. Communicative behaviors are "pre-symbolic" because they do not involve any sort of symbol; and they are "unconventional" because they are not socially acceptable for us to use as we grow older.
- Communicative behaviors include body movements, vocalizations, facial expressions and simple gestures (such as tugging on people).

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Level IV: Conventional Gestures & Vocalizations

- Conventional pre-symbolic behaviors are used intentionally to communicate.
- Communicative behaviors are "pre-symbolic" because they do not involve any sort of symbol; they are "conventional" because they are socially acceptable and we continue to use them to accompany our language as we mature.
- Communicative behaviors include pointing, nodding or shaking the head, waving, hugging, and looking from a person to a desired object. Some vocalizations may also be used at this stage.

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Level IV: Conventional Gestures & Vocalizations

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Level V: Concrete Symbols

- “Concrete” symbols that physically resemble what they represent, are used to communicate.
- Concrete symbols look like, feel like, move like, or sound like what they represent.
- Concrete symbols include pictures, objects (such as a shoelace to represent “shoe”), “iconic” gestures (such as patting a chair to say “sit down”), and sounds (such as making a buzzing sound to mean “bee”).

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[illegible]

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Level VI: Abstract Symbols

- Abstract symbols such as speech, manual signs, Brailled or printed words are used to communicate.
- These symbols are “abstract” because they are NOT physically similar to what they represent.
- At this level they are used one at a time.

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Level VI: Abstract Symbols

The diagram illustrates the progression of symbols from simple to complex, categorized into Level VI: Abstract Symbols. The symbols are arranged in a grid, with a legend indicating that yellow symbols represent 'Symbolic' and orange symbols represent 'Abstract'.

Legend:

- Yellow: Symbolic
- Orange: Abstract

Grid Structure:

The grid is organized into rows and columns. The symbols are arranged in a way that suggests a hierarchy or a sequence of development. The symbols are arranged in a way that suggests a hierarchy or a sequence of development.

Row 1 (Level VI):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 2 (Level V):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 3 (Level IV):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 4 (Level III):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 5 (Level II):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 6 (Level I):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 7 (Level 0):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 8 (Level -1):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 9 (Level -2):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 10 (Level -3):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 11 (Level -4):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 12 (Level -5):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 13 (Level -6):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 14 (Level -7):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 15 (Level -8):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 16 (Level -9):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 17 (Level -10):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 18 (Level -11):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 19 (Level -12):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 20 (Level -13):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 21 (Level -14):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 22 (Level -15):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 23 (Level -16):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 24 (Level -17):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 25 (Level -18):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 26 (Level -19):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 27 (Level -20):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17
- Abstract: C18, C19, C20, C21, C22, C23, C24, C25, C26, C27

Row 28 (Level -21):

- Symbolic: C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C1

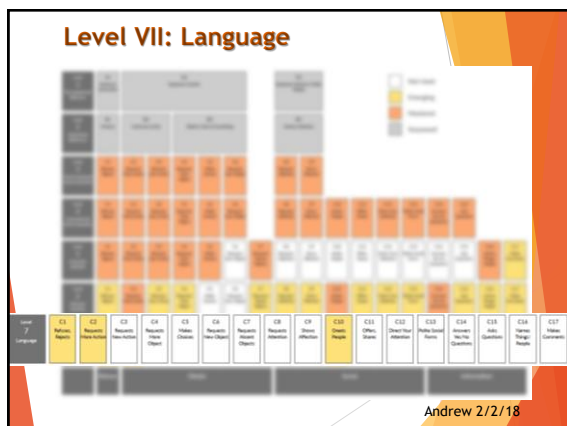
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Level VII: Language

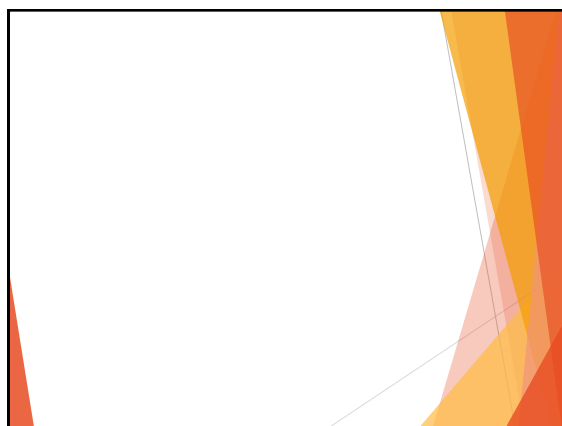
- Symbols (concrete or abstract) are combined into two- or three-symbol combinations ("want juice", "me go out"), according to grammatical rules.
- The individual understands that the meaning of symbol combinations may differ depending upon how the symbols are ordered.

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Communication Matrix: Assessment & Supports



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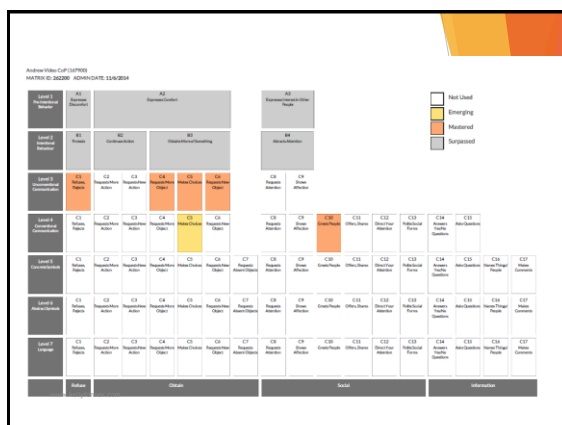


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Meet Andrew

- ▶ Andrew has Down syndrome
- ▶ He enjoys
- ▶ What are his skills on the Communication Matrix assessment?

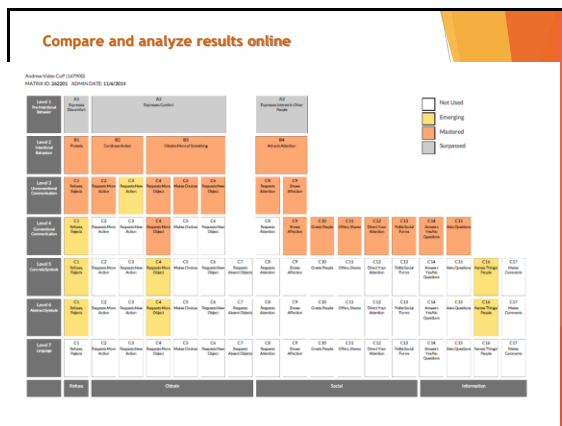
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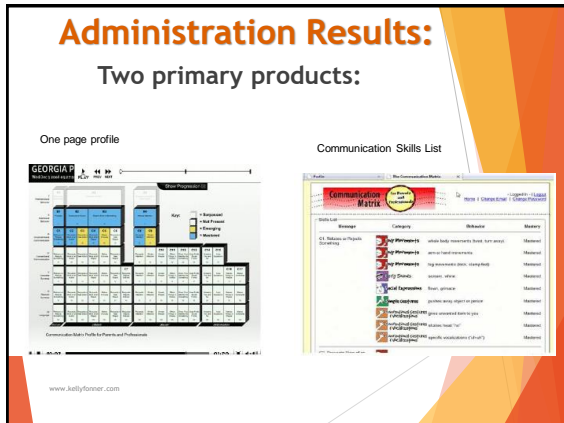


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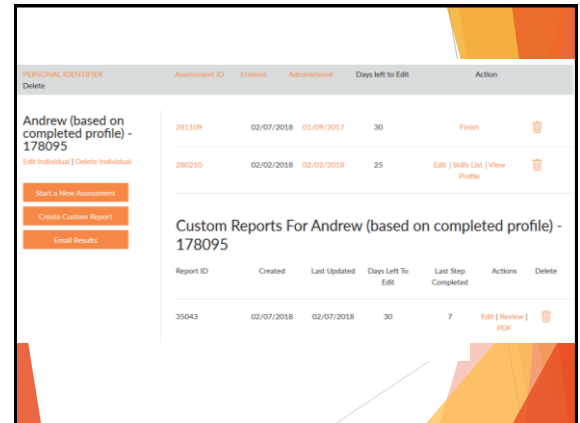


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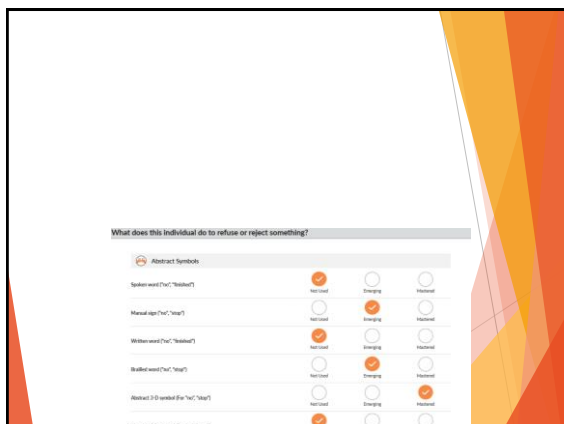
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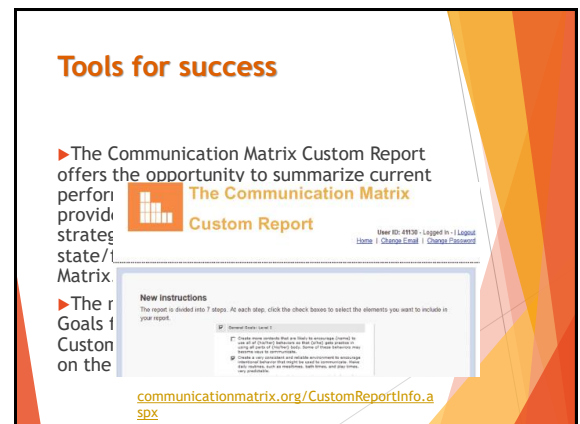
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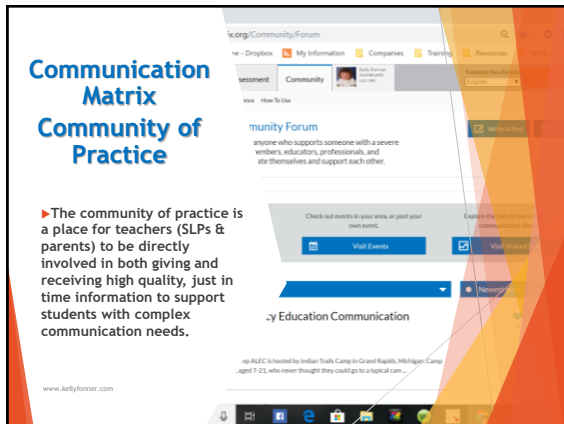


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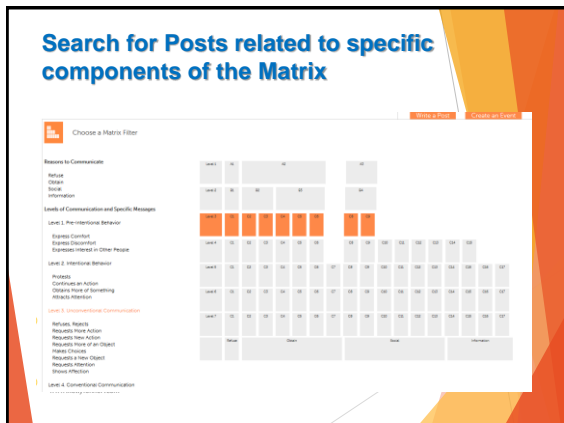
Communication Matrix: Assessment & Supports



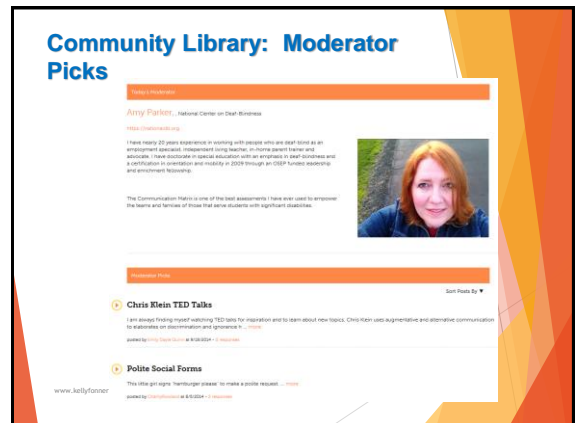
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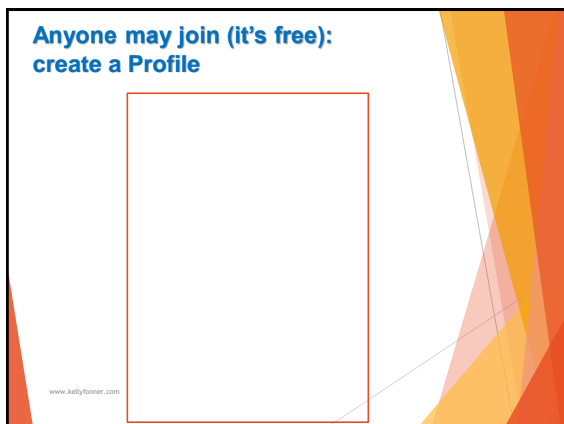
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An important tool for families to connect

With tagging system within the community and the ability to search for information about children with rare disabilities, the community of practice serves as a nexus for families all over the world.

Click the image of Alex to hear more about the challenges in proper assessment.

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Shared Science: CHARGE syndrome

CHARGE Syndrome
This data was updated on 8/7/2023

Citing Info: Rowland, C. (2024). Communication Matrix Shared Science Database. Retrieved from <http://communitycommunicationmatrix.org/sharedsciencepage/>

Individuals included in this sample have the following characteristics:
 Condition: CHARGE Syndrome
 Source of Diagnosis: Confirmed by at least one professional
 Ages: 0 years-25 years and 12 months
 Relationship of administrator to persons assessed: Teacher, Speech-Language Pathologist, or Other Educator or Therapist
 Residence: United States
 Administration: Last Administration Only

Individuals with the following characteristics are NOT included in this sample:
 No Exclusions: -----

Characteristics of this sample

The following charts include: Total Sample Size, Gender, Ages, Residences, and Exclusions

Total: **197**

Gender

Ages

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More ways to engage new professionals in dialogue about approaches with students

The *Communication Matrix* is a valid, reliable and popular instrument for assessing communication skills in individuals with severe communication disorders.

Creation of a virtual community of practice will result in widespread implementation of the entire *Communication Matrix Suite*, including the new Custom Report function, to improve outcomes for children with CCN.

Click the image of Emily to hear more about the challenges for new professionals in the field.

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Translations & International Use

Available online in the following languages:

- English
- Spanish
- Korean
- Chinese (traditional)
- Vietnamese
- Czech
- Russian
- Dutch

Available in PDF

- Romanian
- French
- Portuguese (Brazilian)
- Bulgarian
- Hebrew
- Hungarian
- German
- Persian
- Swedish

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Current Use

- Over 120,000 assessments completed
- On over 95,000 individuals
- From 169 countries
- Approximately 450/week

Most Common Etiologies

- Autism (Primary Diagnosis)
- Cerebral Palsy
- Developmental Disability/Delay
- Deafblindness (Primary Diagnosis)
- Down Syndrome
- Multiple/Severe Disabilities

Role

SLP 54%
 Teacher 29%
 Family 5%
 Other Educator 8%
 Other 4%

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Ages of Individuals Assessed

0-4 years: 16%
 5-9 years: 27%
 10-14 years: 46%
 15-19 years: 7%
 20-29 years: 3%
 30+: 1%

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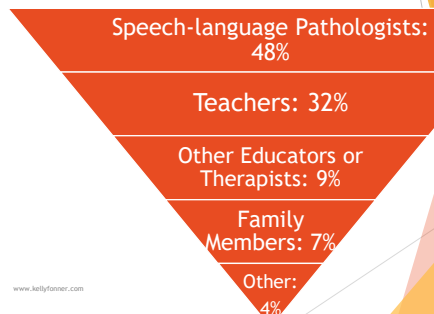
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Rare Disorders Represented in Database

Rare Disorder	Estimated Incidence
Aicardi (n = 43)	1: 100,000
Angelman (n = 720)	1: 15,000
CHARGE (n = 457)	1: 11,000
Cornelia de Lange (n = 167)	1: 20,000
Rett (n = 518)	1: 16,000
Deafblindness (n = 4,227) in U.S. (0-21 yr.)	9,387 in U.S. (0-21 yr.)

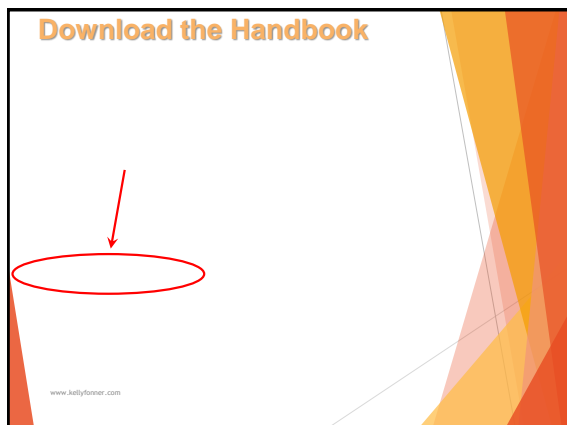
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Who Uses the Online Matrix?



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Download the Handbook



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Outputs from the Communication Matrix & Community of Practice

- Virtual Communication Matrix Community of Practice
- Data-based portraits of communication skills in low-incidence populations
- Mobile application
- Updated Communication Matrix training materials, in English and Spanish
- Nationwide network of Communication Matrix experts participating in Community
- Summative data on effectiveness of Community
- Articles, reports + presentations

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