

Mapping Meaning: Integrating the Communication Matrix with Instruction

Nancy K Steele, MA Ed

Low Incidence Educational Consultant

nancy.k.steele@gmail.com

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Sala de los Secretarios

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How did we get here???

A Little History.....



My teacher thought I was smarter
than I was.

So I was.

-Student

What I have seen/what's missing.....

- People used Communication Matrix for progress monitoring only
- Teams have different expectations and use different cues
- A need for a communication dictionary
- A need for common communication goals shared by the whole team
- A way to share goals and information in real time

Teaming!



What is it?

Why is it important?



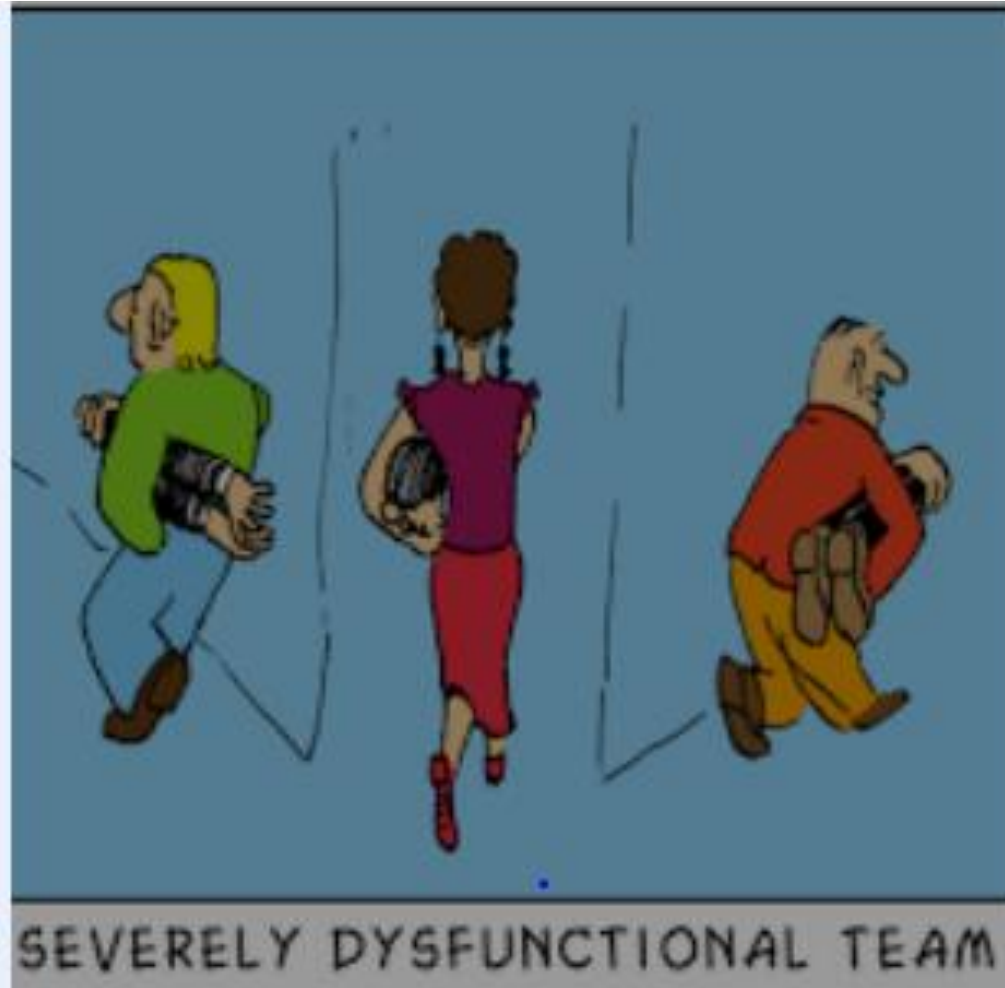
Why We Need a Team

Our intervention/strategy is driven by our own personal experiences and training, the lenses in which we view the task. We reach out across disciplines as we learn and grow in our profession.

- The SLP's silo is primarily **communication**, and supports the multimodal approach in which an individual can express themselves. Supporting language development, use of AAC, pictures, symbols (abstract or concrete) all targeting communication.
- The TVI's silo is primarily understanding the impact of vision across all areas of development, especially **incidental learning** and **concept development**.
- The TDHH's silo is primarily understanding the impact of hearing, specifically the access to absent, distorted or delayed information on the individual's **communication, language, academics, psychological** and **social/emotional development**.
- The Special Education Teacher's silo is primarily on the individual's **learning** and **cognition**.
- The OT's and PT's silo is primarily the individual's **motor skills** and **positioning**, understanding their impact on daily functional skills.

Communication crosses all of these lenses: receptive, expressive, motor and learning. We are all equal partners.

Time for Reflection



Description of Effective Teamwork

- **Coordinated-** Sharing information so each person can facilitate their part of the group's goals.
- **Cooperative-** Each team member assists to meet each other's goals.
- **Collaborative**
 - Shared goals
 - Shared responsibility for outcomes
 - Interdependent

Essential Elements of Collaborative Teaming

Each team member brings their expertise, experience, and background to the group with.....

- Shared Planning
- Shared Resources
- Shared Meaningful Goals and Unity of Purpose
- Shared Leadership
- Shared Values and Trusting Relationships

What the child needs, the team needs!

**Focus on the
child....it will
NEVER steer
you wrong!**



It Starts With Assessment

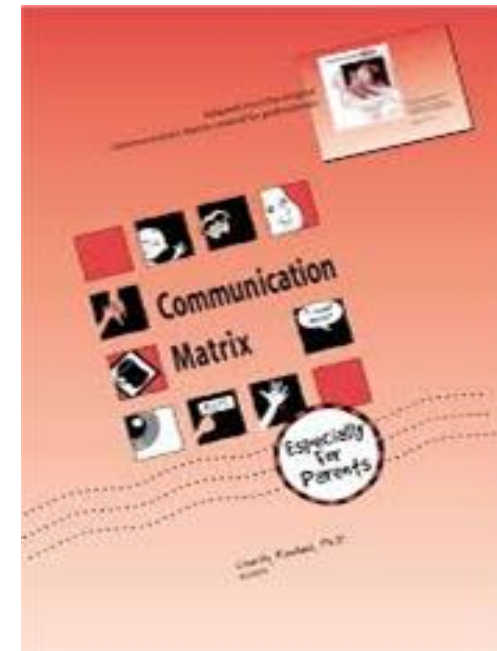
- Why assess?
- Communication Matrix benefits
 - Only thing that comes close to giving you “where to start”
 - Focuses on what the individual CAN do
 - Get to know the whole child from different perspectives
 - Learn things you may not have known about the individual from others



Learning About the Communication Matrix Assessment

Level 1 Pre-Intentional Behaviour	A1 Expresses Discomfort	A2 Expresses Comfort					A3 Expresses Interest in Other People										
Level 2 Intentional Behaviour	B1 Protests	B2 Continues Action	B3 Obtains More of Something				B4 Attracts Attention										
Level 3 Unconventional Communication	C1 Refuses, Rejects	C2 Requests More Action	C3 Requests New Action	C4 Requests More Object	C5 Makes Choices	C6 Requests New Object	C8 Requests Attention	C9 Shows Affection									
Level 4 Conventional Communication	C1 Refuses, Rejects	C2 Requests More Action	C3 Requests New Action	C4 Requests More Object	C5 Makes Choices	C6 Requests New Object	C8 Requests Attention	C9 Shows Affection	C10 Greets People	C11 Offers, Shares	C12 Direct Your Attention	C13 Polite Social Forms	C14 Answers Yes/No Questions	C15 Asks Questions			
Level 5 Concrete Symbols	C1 Refuses, Rejects	C2 Requests More Action	C3 Requests New Action	C4 Requests More Object	C5 Makes Choices	C6 Requests New Object	C7 Requests About Objects	C8 Requests Attention	C9 Shows Affection	C10 Greets People	C11 Offers, Shares	C12 Direct Your Attention	C13 Polite Social Forms	C14 Answers Yes/No Questions	C15 Asks Questions	C16 Names Things/ People	C17 Makes Comments
Level 6 Abstract Symbols	C1 Refuses, Rejects	C2 Requests More Action	C3 Requests New Action	C4 Requests More Object	C5 Makes Choices	C6 Requests New Object	C7 Requests About Objects	C8 Requests Attention	C9 Shows Affection	C10 Greets People	C11 Offers, Shares	C12 Direct Your Attention	C13 Polite Social Forms	C14 Answers Yes/No Questions	C15 Asks Questions	C16 Names Things/ People	C17 Makes Comments
Level 7 Language	C1 Refuses, Rejects	C2 Requests More Action	C3 Requests New Action	C4 Requests More Object	C5 Makes Choices	C6 Requests New Object	C7 Requests About Objects	C8 Requests Attention	C9 Shows Affection	C10 Greets People	C11 Offers, Shares	C12 Direct Your Attention	C13 Polite Social Forms	C14 Answers Yes/No Questions	C15 Asks Questions	C16 Names Things/ People	C17 Makes Comments
Refuse		Obtain						Social				Information					

Not Used
Emerging
Mastered
Surpassed



THERE IS NO INDIVIDUAL WHO DOES NOT COMMUNICATE!

Your individual with complex communication needs DOES communicate. We need to use assessments that capture that early communication!



http://literacy.nationaldb.org/files/7913/7753/4880/Conversations_Without_Language.pdf

<https://www.perkins.org/videos/webcast/conversations-connecting-and-learning-persons-who-are-deafblind>

YOU DON'T NEED WORDS OR SIGNS TO COMMUNICATE



STATEMENTS ABOUT BEHAVIOR AND COMMUNICATION THAT CAN KEEP TEAMS FROM HAVING ROBUST GOALS AROUND EARLY COMMUNICATION

- He doesn't communicate
- She is too uncooperative to communicate.
- She's not motivated to communicate.
- He only communicates to get his way.
- He spits and bites! I can't get near him.
- We have to wait for intervention until his behavior is under control.
- We have to stop the headbanging before we can think about communication.

**HOW DO WE MAKE
COMMUNICATION GOALS IF
PEOPLE DON'T RECOGNIZE
HOW CHILDREN ARE
COMMUNICATING?**

DETERMINING GOALS REQUIRES ASSESSMENT OF WHAT THE CHILD CAN DO

“...**accurate assessment** of communication will lead to realistic educational goals and **appropriate learning experiences**, not only for communication, but **across developmental domains**.”

“While state and local regulations may require that standardized measures be administered, **they are unlikely to provide information useful in program planning** or in predicting outcomes for children who are deafblind or who have multiple disabilities.”

The Communication Matrix

www.communicationmatrix.org



The assessment targets early expressive communication, which encompasses skills that typically develop between birth to 24 months, the age when language typically begins.

TARGET POPULATION



- Children and adults at the **earliest stages of communication**, regardless of chronological age, or identified disability/diagnosis.
- Individuals who use **any type of communicative behavior**, including "augmentative and alternative" (AAC) forms of communication and pre-symbolic communication.
- It is **NOT intended** for individuals who **already** use some form of meaningful and fluent language.

WHAT IS THE COMMUNICATION MATRIX?

The assessment is comprised of a series of questions that captures the various **communicative behaviors** and **communicative intents** across **seven levels of early communication**.



It **guides** intervention, not just progress monitoring. A **team approach** is key to success. Families are a vital part of the team

THE COMMUNICATION MATRIX EXPLORES FOUR MAJOR ASPECTS OF COMMUNICATION

- seven **levels** of communication
- four of the earliest **reasons** for communicating
- 24 specific **messages** that someone expresses (such as “I want that”)
- nine categories of **behaviors** that someone uses to communicate (such as simple gestures).



7 Levels of Communication Skills

Pre-symbolic levels

Level 1 Pre-intentional behaviors (reflexes, like crying which is interpreted by adults)

Level 2 Intentional, but not purposefully communicative behaviors – kicking, turning head away – interpreted by adult, but not directed toward adult

Level 3 Pre-symbolic, non-conventional behaviors (like tugging on adult, pushing things away) that are directed to a communication partner. This is a critical stage because now the child understands that he can impact someone else's behavior. He is intentionally communicating because he acknowledges a communication partner

Level 4 Pre-symbolic, conventional behaviors like pointing, nodding head.



7 LEVELS OF COMMUNICATION

Symbolic Levels

- **Level 5** Uses concrete symbols that physically resemble what they represent in a way that is obvious to the child – they look like, feel like, move like or sound like what they represent.
- **Level 6** Abstract symbols such as speech, manual signs, Braille or print words, abstract images or icons. These symbols do not look, feel, or sound like what they represent. They are used one at a time.
- **Level 7** Combines symbols (any sort of symbols) into ordered two or three-symbol combinations (“want juice”, “me want juice”), according to grammatical rules.

REASONS FOR COMMUNICATING

- To **REFUSE** things that we don't want;
- To **OBTAIN** things that we do want;
- To engage in **SOCIAL** interaction; and,
- To provide or seek **INFORMATION**.





MESSAGES TO REFUSE WHAT YOU DON'T WANT

Level 1: Express discomfort: He's mad, He's unhappy, He's
upset

Level 2: Protest: She doesn't like that, She doesn't want that

Level 3-7: Refuse or reject: Stop doing that to me, Take
that away, NO!



TO GET WHAT YOU DO WANT (OBTAIN)

Level 1: Express comfort: He's content, He's happy, He's pleased

Level 2: Continues action: She likes to do that

Wants more of something: She wants more of that

Level 3-7: Requests more action: "Do that again!"

Requests new action: "I want to play the bouncy game"

Requests more of object: "Give me more of that"

Requests new object (within sight): "I want my blocks"

Makes choices: "Give me that one"

Level 5-7: Requests absent object: "I want you to get my Elmo tape"



TO ENGAGE IN SOCIAL INTERACTIONS

Level 1: Expresses interest in other people: He knows someone's here

Level 2: Attracts attention: Look at what she's doing

Level 3: Requests attention: "Come over here!" "Pay attention to me"

Shows affection: "I know you, I like you"

Level 4-7: Greets people: "Hello," "Goodbye"

Offers, shares: "This is cool, check it out"

Directs another's attention: "Look at that!"

Polite social forms: "Please," "Thank you"



TO PROVIDE OR SEEK INFORMATION

Level 4: Answers yes/no: **“Yes, No or I don’t know”**

Asks questions: expects a response from you: **“What is that?”**

Level 5 -7: Names things/people: labels either spontaneously or in response to “what’s that?” **“Dog!” “Mom!”**

Makes comments: **“That’s big,” “This is hot”**

24 MESSAGES

Level	Refuse	Obtain	Social	Information
I	-Expresses discomfort	-Expresses comfort	-Expresses interest in other people	
II	-Protests	-Continues an action -Obtains more of something	-Attracts attention	
III	-Refuses or rejects something	-Requests more of an action -Requests a new action	-Requests attention -Shows affection	
IV		-Requests more of an object -Makes choices -Requests a new object	-Greet people -Offers things or shares -Directs someone's attention to something -Uses polite social forms	-Answers "Yes" and "No" questions -Asks questions
V				-Names things or people -Makes comments
VI				
VII				

COMPONENTS OF THE MATRIX:

NINE CATEGORIES OF COMMUNICATIVE BEHAVIOR

Body movements

Early sounds Facial
expressions Visual

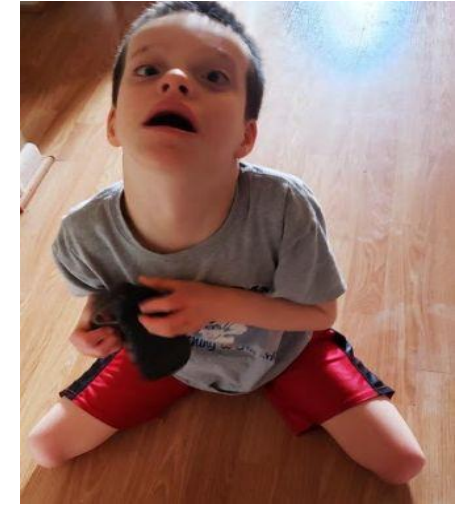
Simple gestures

Conventional gestures and vocalization

Concrete symbols

Abstract symbols

Language



EXAMPLES OF SPECIFIC BEHAVIORS

	Postural changes, lunge toward, twist, turn away Arm, leg movements Head movements Move toward or away from		Give, show, beckon, hands up (for “up”) Shake/nod head, shrug shoulders Specific vocalization (not a word) Alternating gaze, point Hug/kiss/pat
	Cry, grunt, scream, whine, fuss Coo, squeal	 May be embedded in device	Line drawings, photos Objects Pantomime Mimic sound
	Smile Grimace, frown	 May be embedded in device	Spoken word Written/Brailled word Manual sign Bliss symbol Abstract 3 or 2-dimensional symbol
	Look at	 May be embedded in device	Combinations of 2 or more symbols (of any kind)
	Push away Take hand, touch, reach, tap, hand guide Activate switch (e.g. calling device)		

COMPLETING THE COMMUNICATION

MATRIX

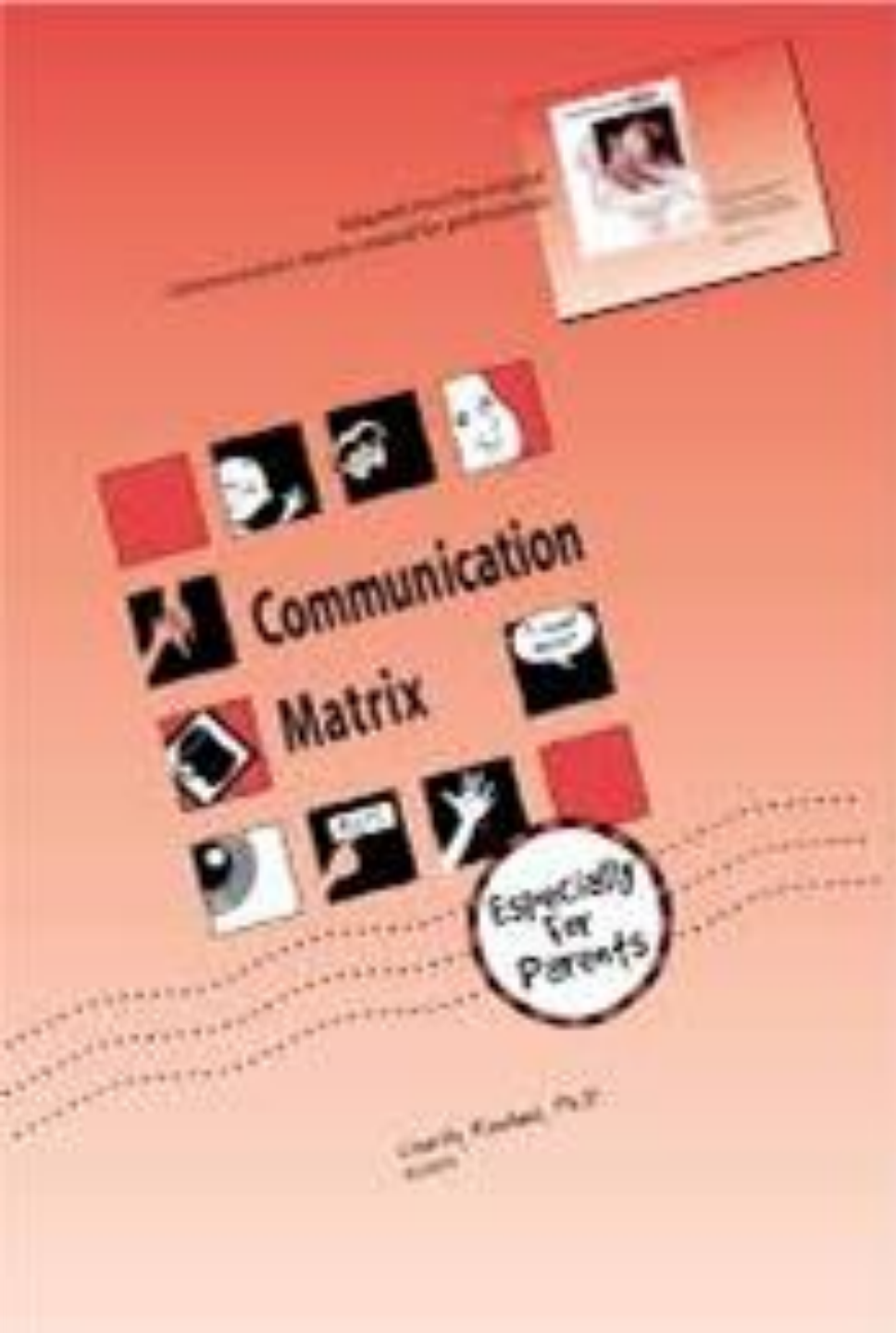


The image shows a screenshot of a Communication Matrix (C-Map) tool. It is a large grid with rows and columns representing different communication elements. The grid is color-coded: orange for 'Observed', yellow for 'Emerging', and grey for 'Not observed'. A legend in the top right corner explains these colors. The grid is titled 'Communication Matrix' and 'A C-Map tool'.

The most reliable results occur when the assessment is completed by a team that includes the family.

It is not unusual to have a difference in results when various individuals complete the Matrix separately.

- Observable behavior subject to interpretation
- Emerging for one may be mastered by another and vice versa
- Relationships influence behavior
- Motivation impacts communicative intent



Two Ways to Administer the Communication Matrix

- [Paper version](#) –
 - Free download
 - No internet needed
 - Have to complete the profile yourself
- On-line version -
<https://communicationmatrix.org/Dashboard/MyHome>
 - The first 5 assessments are free, a small cost after that
 - Each administration is saved for easy comparison
 - Requires internet
 - Profile is generated automatically
 - Option to generate a report for a fee

ADMINISTERING THE COMMUNICATION MATRIX

There are different ways to complete the Matrix

- Give people the questions ahead of time (*Download the Parent Version from [Design to Learn](#) or Download the questions from [CommunicationMatrix.org](#)*) before the interview.
- Interview team members together or separately.
- Complete online administration which can be edited for 30 days after started or compile all notes and then enter online.

QUESTIONS TO DETERMINE WHERE TO BEGIN ADMINISTRATION

1. The individual doesn't seem to have real control over their body yet.

The only way I know he wants something is because he fusses or whines when he is unhappy or uncomfortable, and he smiles , makes noises or calms down when he's happy and comfortable.

Does this statement describe this individual?

- Yes
- No, this stage is beyond this individual's ability
- No, this individual has surpassed this stage

QUESTIONS TO DETERMINE WHERE TO BEGIN ADMINISTRATION

2. The individual has control over their behavior, but they don't use them to try to communicate with me.

She doesn't come to me to let me know what she wants, but it's easy for me to figure it out, because she tries to do things for herself. She knows what she wants, and her behavior lets me know what she wants

Does this statement describe this individual?

- Yes
- No, this stage is beyond this individual's ability
- No, this individual has surpassed this stage

Alternate question that might clarify

- *B. My child has control over her own behaviors, but she doesn't use them to try to communicate to me. She doesn't try to let me know what she wants, but it's easy for me to figure out. She knows what she likes and dislikes, and her behavior shows me. She might look at something, or try to move toward it if she wants it, or turn away or push it away if she doesn't; but her behaviors aren't directed to me. Does this statement describe your child?*

QUESTIONS TO DETERMINE WHERE TO BEGIN ADMINISTRATION

3. The individual clearly tries to communicate his needs to me through gestures, sounds, or language.

He knows how to get me to do something for him. He uses the kinds of behaviors below to communicate:

- Gestures such as pointing, shaking his head, tugging at my arm
- Sounds such as squealing to show he wants something or fussing when he doesn't want something
- Language or symbolic forms of communication such as speech, written word, Braille, pictures symbols, 3-D symbols or sign language

Does this statement describe this individual?

- Yes
- No, this stage is beyond this individual's ability

ADMINISTERING THE MATRIX

- Each question you will see is related to a certain message that your child might be able to express using a variety of behaviors.
- **Read the question and decide whether your child is able to express the message.** If the answer is YES, **check which of the listed behaviors your child uses.**
- Then you must also decide whether your child has mastered the use of each behavior or whether it is still at an emerging stage.
- Provide details in the Notes section

SCORING THE MATRIX



Mastered

- Does this independently most of the time when the opportunity arises.
- Does this in a number of different contexts, and with different people.

Emerging

- Does this inconsistently.
- Only does this when prompted or encouraged to do so.
- Only does this in one or two contexts or with one person.

Symbols

- If the child uses symbols either on cards or in devices, score based on what kind of symbol: concrete, abstract

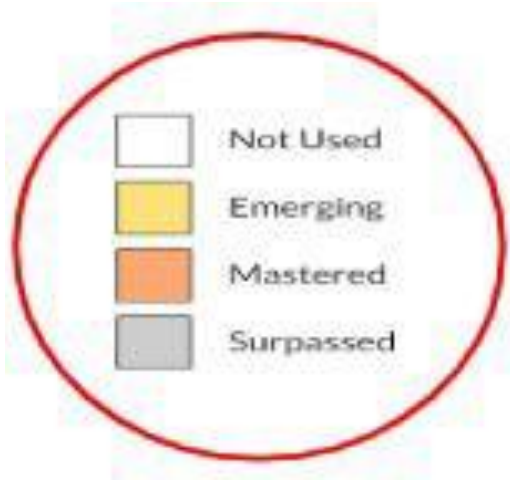
THE COMMUNICATION MATRIX PROFILE

Level 1 Pre-Intentional Behavior	A1 Expresses Discomfort	A2 Expresses Comfort					A3 Expresses Interest in Other People															
Level 2 Intentional Behaviour	B1 Protests	B2 Continues Action		B3 Obtains More of Something				B4 Attracts Attention														
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Level 5 Concrete Symbols	C1 Refuses, Rejects	C2 Requests More Action	C3 Requests New Action	C4 Requests More Object	C5 Makes Choices	C6 Requests New Object	C7 Requests Absent Objects	C8 Requests Attention	C9 Shows Affection	C10 Greets People	C11 Offers, Shares	C12 Direct Your Attention	C13 Polite Social Forms	C14 Answers Yes/No Questions	C15 Asks Questions	C16 Names Things/ People	C17 Makes Comments					
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	Refuse	Obtain					Social											Information				

	Not Used
	Emerging
	Mastered
	Surpassed

THE COLORS ON THE PROFILE

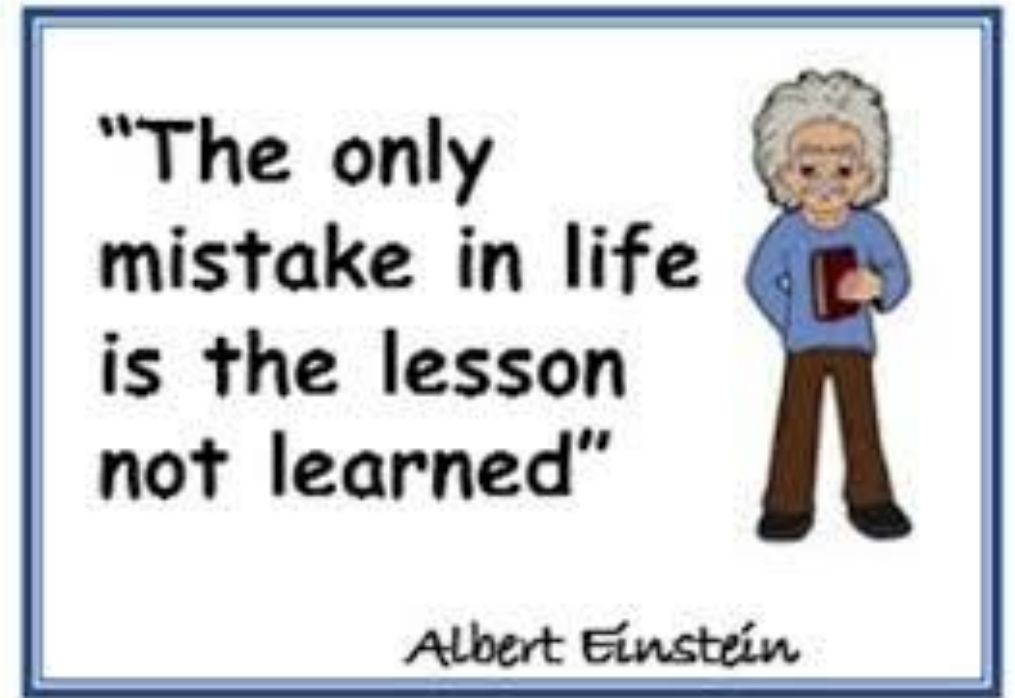
- **Surpassed** skills are not assessed because they are presumed to be below the individual's ability level.
- **Mastered:** Does this independently most of the time when the opportunity arises, in a number of different contexts, and with different people. These skills should be expanded through new vocabulary, multiple communication partners, and in new activities across environments.
- **Emerging** Does this inconsistently, when prompted or encouraged to do so, in one or two contexts or with one person. These skills should be practiced through daily activities.
- **Not Used** skills should be introduced utilizing mastered and emerging skills to support growth.



Lessons Learned

On the online version, if you are taken to the ***Profile*** before you feel you have completed the Matrix question

- go to your **Dashboard**
- select **Manage Assessments**
- select **Edit**
- continue with the questions



If it doesn't feel right, it probably isn't.....

All effective interventions and intervention plans begins with an accurate assessment including the individual's Profile.

Once the assessment is completed and the Profile is generated, it is good practice to reflect and ask yourself: *Does the Level provided in the Profile accurately capture the individual's communicative abilities?*

- If yes, you are good to go.
- If you are not sure or the answer is no, go back and review the assessment answers.

The most common error occurs while answering one of the three guiding questions especially in the online version. The online version **automatically** sends the user to the section of the assessment indicated by the user's answer on that guiding question. Let's review these questions and the possible answers.

Your Turn to Try It

- Go to <https://www.communicationmatrix.org/>
- Click off the Donate box
- Scroll Down to Try IT

Communication Matrix

Interpreting the Profile

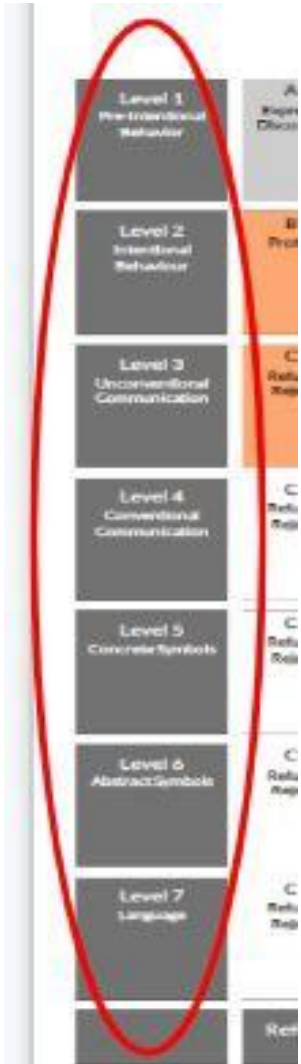
Let's review 3 critical questions to consider



“WHERE” is my individual functioning

1. What level best describes my individual?

Components of the Matrix: Levels



Level I Pre-Intentional Behavior

Level II Intentional Behavior

Level III Unconventional Communication (pre-symbolic)

Level IV Conventional Communication (pre-symbolic)

Level V Concrete Symbols*

Level VI Abstract Symbols

Level VII Language

*Level V is a transitional step for an individual who has difficulty moving from pre-symbolic to symbolic communication. Many individuals who are not visually impaired skip this step.

“HOW” will they communicate

2. What modes of communication should I consider?

Will input and output be the same or different?

Communication Modes Associated with Each Level of Communication

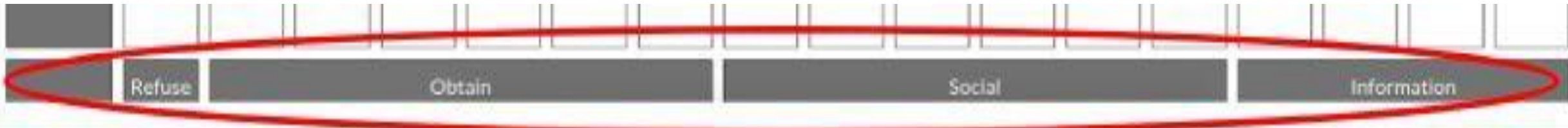
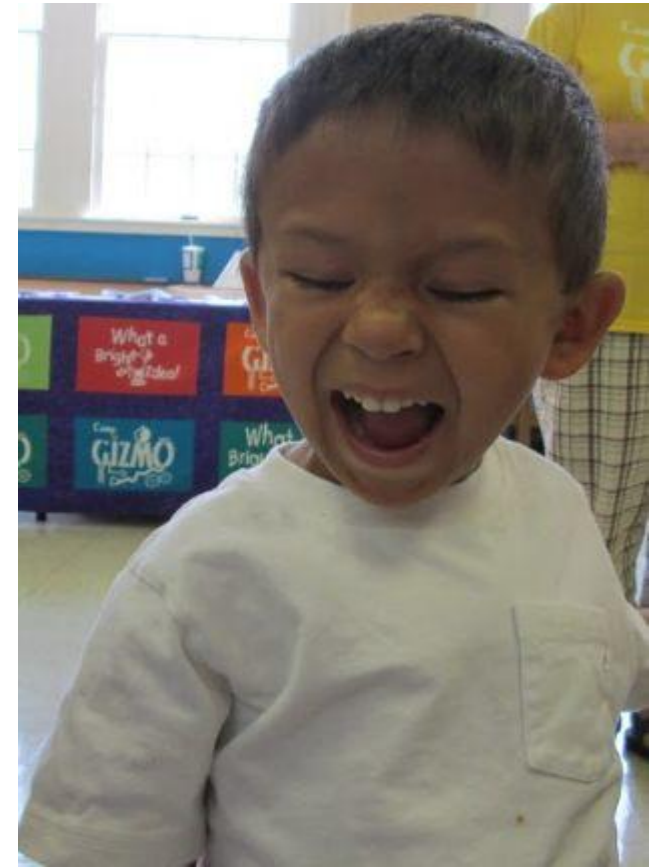
Communication Level	Vocal/Speech		Motor/Gestural	Electronic Technology	2- and 3-dimensional Symbols
Level I Pre-intentional behavior	Cry Coo	Grunt Gurgle	Head and limb movement Postural changes Facial expressions		
Level II Intentional behavior	Fuss Babbling sounds		Gaze at object Avert head Move away from Take object	Smile Approach object Push away	Contingency awareness (not communication)
Level III Unconventional pre-symbolic behavior	Laugh Whine Scream		Eye contact Manipulate person	Calling device	
Level IV Conventional pre-symbolic communication	Intonated sounds Patterns Vocalizations Accompany gestures		Alternating gaze Open palm Point Nod/Shake head Kiss/Hug/Pat Touch object, person	Shrug Hands up/out Extend object Wave Raise hand	Two-choice option Yes/no option(consider if conventional behaviors cannot be used)
Level V Concrete symbolic communication	Mimic sounds of objects		Iconic gestures (mine, come, sit) Pantomime action, object	Selection of concrete 2-3-dimensional symbols	Concrete 2-dimensional symbols Concrete 3-dimensional symbols
Level VI Abstract symbolic communication	Single spoken words		Single manual signs	Selection of abstract symbols	Abstract shapes Abstract graphics Written words Brailled words
Level VII Formal symbolic communication (Language)	Combination of 2 or more spoken words		Combination of 2 or more manual signs	Selection of a combination of 2 or more symbols	Combination of 2- or 3-dimensional symbols

“WHAT” will they communicate

3. What communication intents
should I focus on?

Components of the Matrix: Reasons

- To **REFUSE** things that we don't want;
- To **OBTAIN** things that we do want;
- To engage in **SOCIAL** interaction; and,
- To provide or seek **INFORMATION**.



Components of the Matrix: 24 Messages

Level	Refuse	Obtain	Social	Information
I	-Expresses discomfort	-Expresses comfort	-Expresses interest in other people	
II	-Protests	-Continues an action -Obtains more of something	-Attracts attention	
III	-Refuses or rejects something	-Requests more of an action -Requests a new action	-Requests attention -Shows affection	
IV		-Requests more of an object -Makes choices -Requests a new object	-Greet people -Offers things or shares -Directs someone's attention to something -Uses polite social forms	-Answers "Yes" and "No" questions -Asks questions
V				-Names things or people -Makes comments
VI				
VII				

Always keep in mind:

- . Sensory challenges
- . Motor challenges

Let's Interpret!!!



Communication Matrix Profile Comparison

John



Jane



Background

John

- Mastered skills up through Level III Unconventional communication
- Two skills mastered at Level IV Conventional Communication
- Emerging skills up to Level VII
- Toddler
- Developmental Delay
- Emerging initiation skills
- Uses a few signs and vocalizations

Jane

- Mastered skills up through Level III Unconventional communication
- Emerging skills up to Level VII
- Early elementary student
- Previous brain surgery
- Requires constant prompting
- Has iPad with symbol-based app and vocabulary stored on various pages
- Has spontaneously created appropriate, two-word utterances with app and familiar partners

Components of John's Communication Plan

- Continue with sign language
- Introduce tangible symbols paired with pictures – Level V – Concrete Symbols
- Focus on personalized words that are important to John

[illegible]

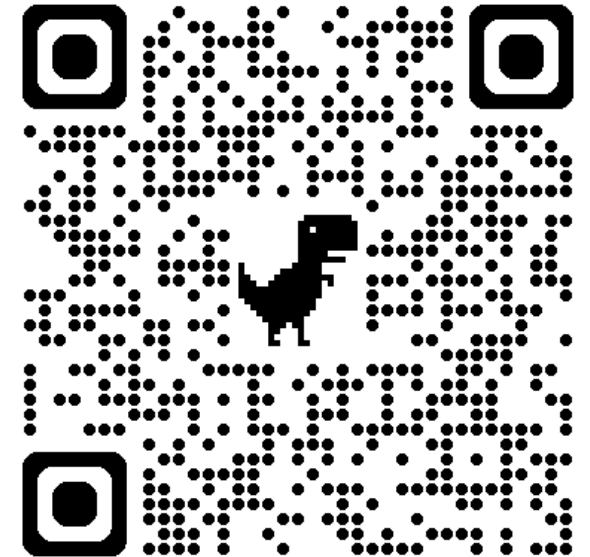
Components of Jane's Communication Plan

- Continue with iPad app
- Encourage single- and two-word productions
 - Modeling by all partners
 - Expand communication intents
 - Fade prompts
- Focus on Level VI & VII goals

Level 1 Functional Verbal	91 Request Object	92 Request Action	93 Request Object				94 Request Object/Action/Place														
Level 1 Functional Verbal	81 Request	82 Request/Action	83 Request/Action/Place	84 Request/Action/Place				85 Request/Action													
Level 2 Functional Verbal	71 Request Object	72 Request/Action Object	73 Request/Action Object	74 Request/Action Object	75 Request/Action Object	76 Request/Action Object	77 Request Object	78 Request Object													
Level 4 Functional Verbal	61 Request Object	62 Request/Action Object	63 Request/Action Object	64 Request/Action Object	65 Request/Action Object	66 Request/Action Object	67 Request Object	68 Request Object	69 Request Object	70 Request Object	71 Request Object	72 Request Object	73 Request Object	74 Request Object	75 Request Object	76 Request Object	77 Request Object	78 Request Object	79 Request Object	80 Request Object	81 Request Object
Level 2 Functional Verbal	51 Request Object	52 Request/Action Object	53 Request/Action Object	54 Request/Action Object	55 Request/Action Object	56 Request/Action Object	57 Request Object	58 Request Object	59 Request Object	60 Request Object	61 Request Object	62 Request Object	63 Request Object	64 Request Object	65 Request Object	66 Request Object	67 Request Object	68 Request Object	69 Request Object	70 Request Object	71 Request Object
Level 4 Functional Verbal	41 Request Object	42 Request/Action Object	43 Request/Action Object	44 Request/Action Object	45 Request/Action Object	46 Request/Action Object	47 Request Object	48 Request Object	49 Request Object	50 Request Object	51 Request Object	52 Request Object	53 Request Object	54 Request Object	55 Request Object	56 Request Object	57 Request Object	58 Request Object	59 Request Object	60 Request Object	61 Request Object
Level 1 Verbal	31 Request Object	32 Request/Action Object	33 Request/Action Object	34 Request/Action Object	35 Request/Action Object	36 Request/Action Object	37 Request Object	38 Request Object	39 Request Object	40 Request Object	41 Request Object	42 Request Object	43 Request Object	44 Request Object	45 Request Object	46 Request Object	47 Request Object	48 Request Object	49 Request Object	50 Request Object	51 Request Object
Refuse		Obtain						Social						Information							

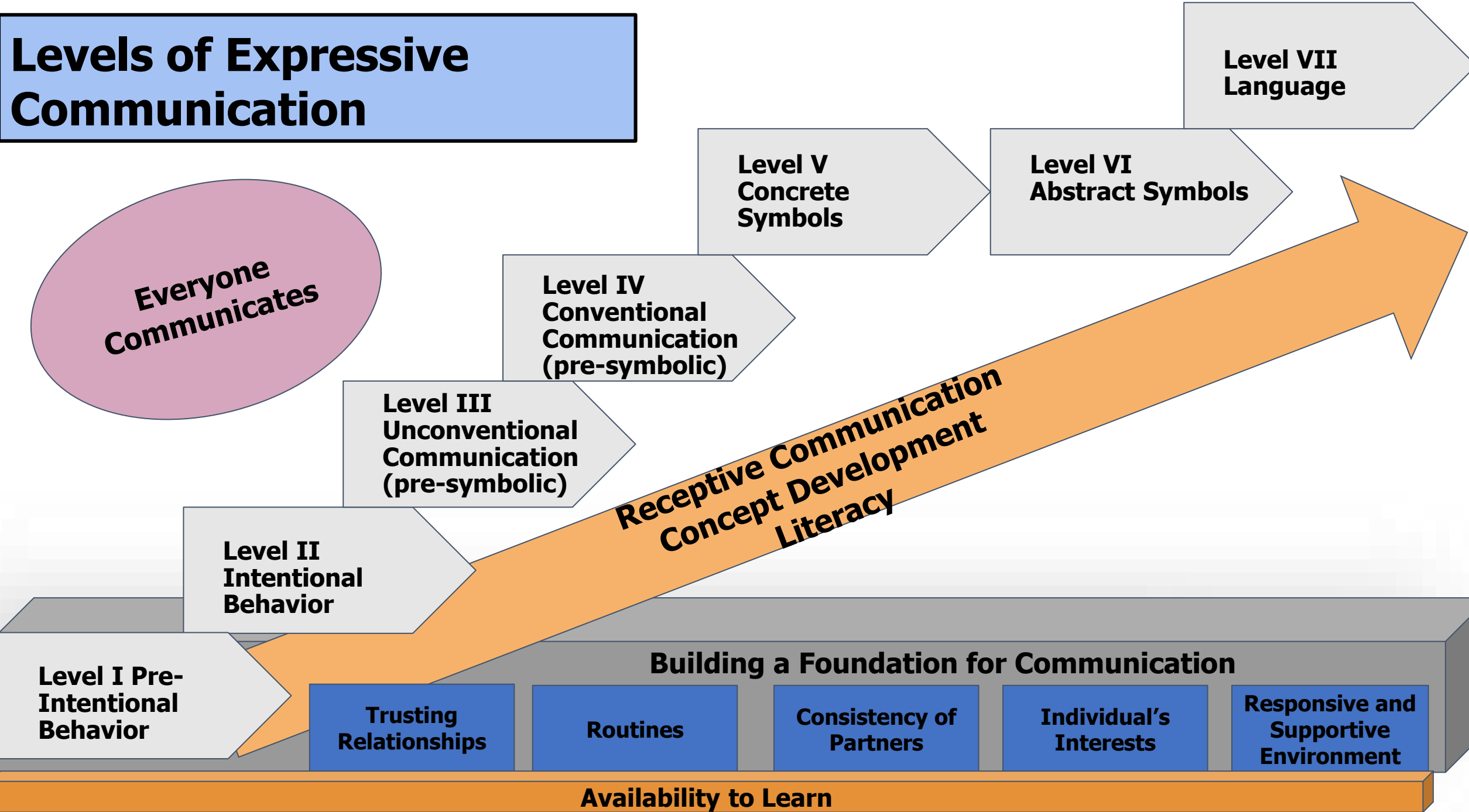
A tour of the WV Communication Matrix Intervention Modules website

[https://wvde.us/academics/special-
education/communication-matrix](https://wvde.us/academics/special-education/communication-matrix)



Levels of Expressive Communication

Everyone Communicates



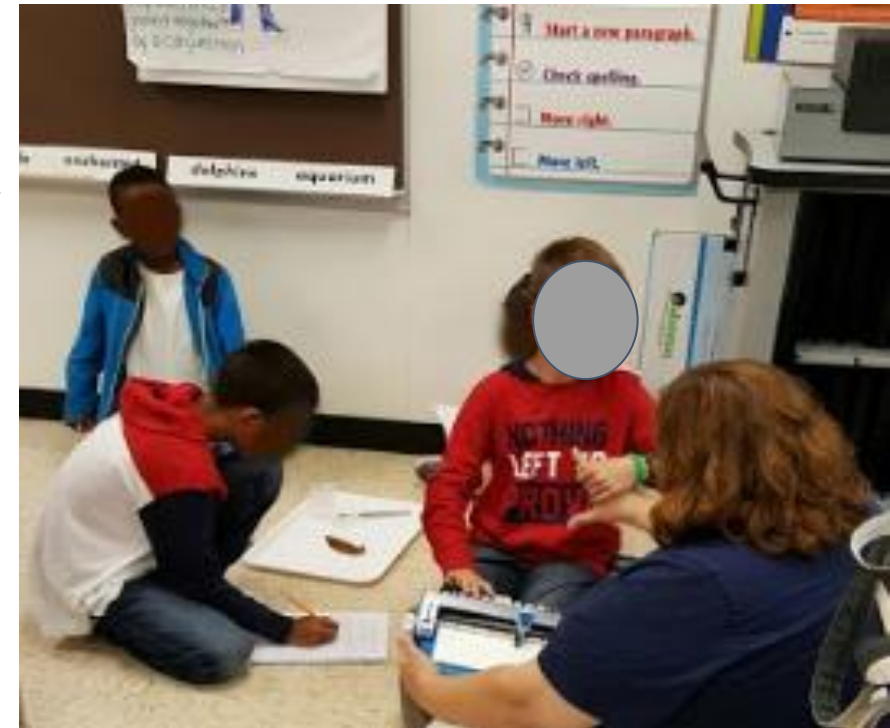
Things to Remember

The Communication Matrix measures communication, not cognitive ability. Lack of communication does not equate to lack of intelligence.



More Things to Remember

- **Receptive Communication** is the process of receiving and understanding a message.
- **Expressive Communication** is the way an individual sends a message to a partner.
- The way in which an individual receives information might be different from the way they express information.



Use the Profile as Your Guide

The completed Matrix becomes the individual's communication profile which guides intervention.



The image shows a Communication Matrix Profile, a grid used to track an individual's communication skills. The grid is organized into rows and columns. The rows are labeled on the left: 'Level 1: Basic', 'Level 2: Intermediate', 'Level 3: Advanced', 'Level 4: Complex', 'Level 5: Specialized', and 'Level 6: Expert'. The columns are labeled at the top: 'Communication', 'Social Interaction', 'Functional Skills', 'Self-Management', and 'Self-Advocacy'. Each cell in the grid contains a small icon representing a skill. A legend in the top right corner indicates the skill levels: 'Not Used' (white), 'Emerging' (yellow), 'Mastered' (orange), and 'Terminated' (grey). The grid shows a progression of skills from Level 1 to Level 6, with some skills marked as 'Mastered' and others as 'Emerging'.

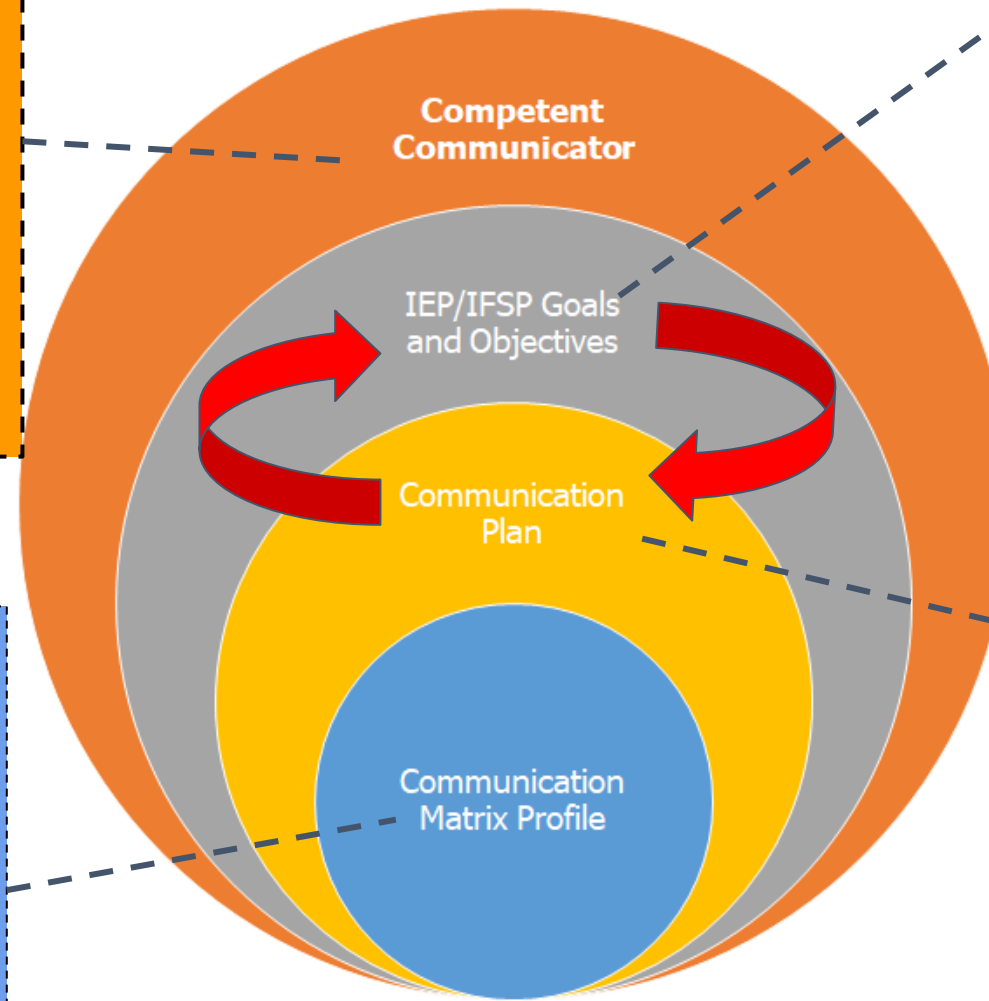
The *Communication Matrix Profile* is designed to “pinpoint” how the individual is communicating and assists in identifying logical communication goals.

- Be flexible and observant
 - Skills marked as mastered may need to be revisited
 - Areas thought to be emerging may actually be mastered
- Follow the individual's lead
- Collect data and adjust intervention frequently

Competent Communicator - one who has maximized their communication skills. This is the ultimate goal.

Communication Matrix Profile - profile developed from the Communication Matrix.

Communication



IEP/IFSP Goals and Objectives - measurable annual goals and short term objectives to meet the individual's needs.

Communication Plan - a flexible guide the team uses to apply the analyzed data to determine the specific daily interventions for achieving the individual's IEP/IFSP goals.

Intervention Considerations

- You must consider the impact of sensory systems and/or lack of experiences that may prevent an individual from **understanding** and impact incidental learning.
- Intervention must take into account the individual's gross and fine motor, vocal and sensory abilities and any limitations that may make it difficult or impossible for the individual to **produce** certain behaviors.
- Incidental learning is the foundation for all learning. Individuals with sensory and motor issues will have disrupted or distorted input.



It Really Does Take a Village

- For typical individuals, learning to communicate occurs naturally and is learned incidentally.
 - No one taught you how to communicate.
 - For your individual, this did not occur.
 - We must engineer the environment and stimuli.
- Implementing an effective communication plan requires everyone.
 - Speech Language Pathologists
 - Teachers
 - Paraprofessionals and Aides
 - Family members
 - Peers
- Determine roles and responsibilities for each team member.
 - Who will collect and analyze the data?
 - How and when will data be collected?
 - Who will guide the team?



Communication Road Map



Communication is an Exchange

- Successful interaction requires consistent response to each individual's behavior in a predictable way.
- Communication partner's body language, verbal tone, and touch convey a message.
- Individual's attention and motivation on a shared topic or shared focus are critical.
- Individuals demonstrate different skills with familiar and unfamiliar partners and environments.

There is NO individual who does not communicate!

Your individual with complex communication needs DOES communicate!

“Not having a voice to say I’d had enough food or the bath water was too hot or to tell someone I loved them was the thing that made me feel most inhuman. Words and speech...give us free will.... Without a voice, I couldn’t control even the simplest things.” (p. 79)

Pistorius, M. (2013). *Ghost boy: The miraculous escape of a misdiagnosed boy trapped inside his own body*. Nashville, TN: Nelson Books.

The Team's Responsibility - Environment

The environment should include:

- opportunities to increase communication partners including multiple adults and peers.
- communication opportunities **at least** every 15 minutes outside of direct intervention.



Expect the individual to communicate!

The Team's Responsibility - Communication

The greater the home-school partnership, the greater the success.

Observe and focus!

- Be “in the moment”.
- Be attuned to the individual.
- Follow the individual's lead, motivation, and interests.

Shape the individual's behaviors to become more communicative.

Help the individual grow in the direction of conventional and intentional, symbolic communication.

Behavior IS communication.



Development of Intentionality



Intentionality

Definition of **Communicative Intentionality**

“Deliberate pursuit of a goal as well as the means to attain the goal.”

Intentional Behavior (Level II)

Behavior is under the individual's control, but it is not yet used to communicate intentionally.

vs.

Intentional Communication (Level III)

Unconventional, pre-symbolic behaviors are used to intentionally communicate.

Characteristics of Intentionality

Performs behavior only when the individual knows another person is present (except for “distance” behaviors such as vocalizing)

- Persistence
- Repetition
- Alternating gaze (body orientation, leaning toward)
- Changing the signal used
- Awaiting a response
- Terminating the signal when responded to
- Indicating satisfaction or dissatisfaction to response

Sequence of Communicative Intentionality Development

- Pre-Intentional – Level I
- Transitional – Level II
 - Behavior IS intentional, but NOT intentionally communicative
- **Intentional – Level III and Level IV**
 - Behavior is **BOTH** intentional and intentionally communicative
- Symbolic – Level V-VII
 - Concrete symbols/Transitional (Level V)
 - Abstract symbols (Level VI)
 - Language/combinations of symbols (Level VII)

Where to Begin: It's all Connected

- Child with complex communication needs will display splintered communication skills.
- Often these splintered skills occur across levels and/or communicative intent.
- The communication plan may include a focus on communicative intent at levels lower and higher than the current assessment placement. When this is the case, choose the next logical level demonstrated. (Why would one work on tangible symbols when they can understand abstract symbols?)
- This decision must take into account the child's gross and fine motor, vocal, and sensory abilities and any limitations that may make it difficult or impossible for the individual to produce certain behaviors.



"It is important to remember that communication development is progressive. It may progress (a) from easy to hard, (b) from few ways to many, (c) from few wants and needs to many, (d) from a few reasons to many, and (e) with few people to many." (National Center on Deaf-Blindness, 2010 Revised)

Stages of Intentionality Development

Pre-Intentional – Level I

In this stage, the individual is *neither* deliberately pursuing a goal *nor* aware of a means to obtain the goal.

A communication partner *interprets* the individual's behaviors *as if these were intentional*.



Stages of Intentionality Development

Pre-Intentional Level I



Expressive:

- Idiosyncratic; behavior state
- Context-driven
- Individual learns the *power* of communication.
- Partner must **interpret** behaviors.

Receptive:

Comprehends speaker's tone of voice and physical contact/touch.

Stages of Intentionality Development

Transitional Intentionality – Level II

In this stage, the individual *is* deliberately engaging in behavior, *but does not have a "mental plan"* for obtaining a desired goal.

A communication partner *may use context to derive meaning* from the individual's behavior. Interpretation of unconventional forms will be required.



Stages of Intentionality Development

Transitional Intentionality - Level II



Expressive:

- Dawning of intentionality
- Purposeful communication *begins* to emerge
- Context contributes to a minor degree

Receptive:

Comprehension of some words and simple directives, **in context**

Stages of Intentionality Development

Intentional - Level III/Level IV

An individual uses his behaviors for the purpose of affecting another person.

In this stage, the individual is deliberately pursuing a goal and has a “mental plan”, including a means for obtaining the desired goal and/or is deliberately engaging in an exchange with another person for some intended purpose.

NOTE: The form of the individual’s communication might still be unconventional.

Stages of Intentional Development

Intentional – Begins at Level III/Level IV

Expressive:

- Intentional (pre-symbolic) communication is the foundation for beginning symbolic communication that will appear at higher levels.
- Communication becomes less dependent on context or routine.

Receptive:

- Comprehension precedes production.
- Comprehension of “words” (sign, objects, gestures, movement, spoken words) emerges and increases.

Intentionality: Comparison for a Typical Child

PRE-INTENTIONAL	TRANSITIONAL	INTENTIONAL
Birth - 8 / 9 months	8 / 9 - 12 / 15 months	12 / 15 months
reflexive behavior random behavior behavior state	behavior is meaningful in <i>context</i>	behavior is used to affect a partner
behavior is NOT intentional	behavior IS intentional	behavior IS intentional
behavior is NOT intentionally communicative	behavior is NOT intentionally communicative	behavior IS intentionally communicative
partner must interpret behavior	some degree of partner interpretation	no partner interpretation required
Perlocutionary	Illocutionary	Locutionary

Impact of Incidental Learning on Communication

“Incidental learning is some form of accidental/indirect/additional/unplanned learning within an informal or formal learning situation.” (D. Schneider, 2009)

Individuals with motor issues, sensory loss, or other disabilities such as autism, often need the environment engineered for learning or have the concepts directly taught.

Concept development for a typical individual is learned incidentally through experiences and interactions with the environment.

Concept Development



Why Discuss Concepts?

- Concepts are the underpinning for effective communication.
- Concepts provide the framework to support the individual across all levels of effective communication.
- Without a strong conceptual foundation, individuals may not progress to higher levels of communication.
- Introducing and building vocabulary within the context of concepts, supports the individual's ability to understand, use, and retain the symbols.

How are Concepts Developed?

- Learned incidentally through experiences and interactions with the environment.
- Develops effortlessly and freely with repetition and through a free flow of information.
- Concepts develop in a spiral as experiences expand.
- Understanding of one concept leads to the understanding of other concepts.

Concept vs. Skill

Concept:

A mental representation, image, or idea of tangible and concrete objects (chair, dog) as well as intangible ideas and feelings (colors, emotions).



For example:

Clean clothes vs doing laundry

Skill:

The ability to do something such as tying a shoe or using vision to find an object.



Concepts

It is important to build concepts while providing vocabulary for individuals.

- Concepts are how we connect meaning to objects, events, and people.
- Concepts provide a foundation for communication and literacy.
- Concepts provide the framework for an individual to organize information.

Look at the vocabulary being taught and think about how to group the tangible symbols into conceptual categories. (core vs. personal vocabulary)

Complexity of Concepts

Concrete concepts

- Relate to objects or things that are tangible or can be seen, touched, held, smelled, heard, tasted (cold, wet, loud, soft, body parts).

Semi-concrete concepts

- Relate to an action, color, position, or something that can be demonstrated but not held in one's hand (jumping, behind/in front, red, day/night).



Abstract concepts

- Include feelings, emotions, ideas, qualities (love, sick, worry, patriotism, honesty).

Understanding Tangible Concepts

- **Objects exist**
- **Objects have permanence**
- **Objects differ**
- **Objects have names or labels**
- **Objects have characteristics**
- **Objects have functions or use**

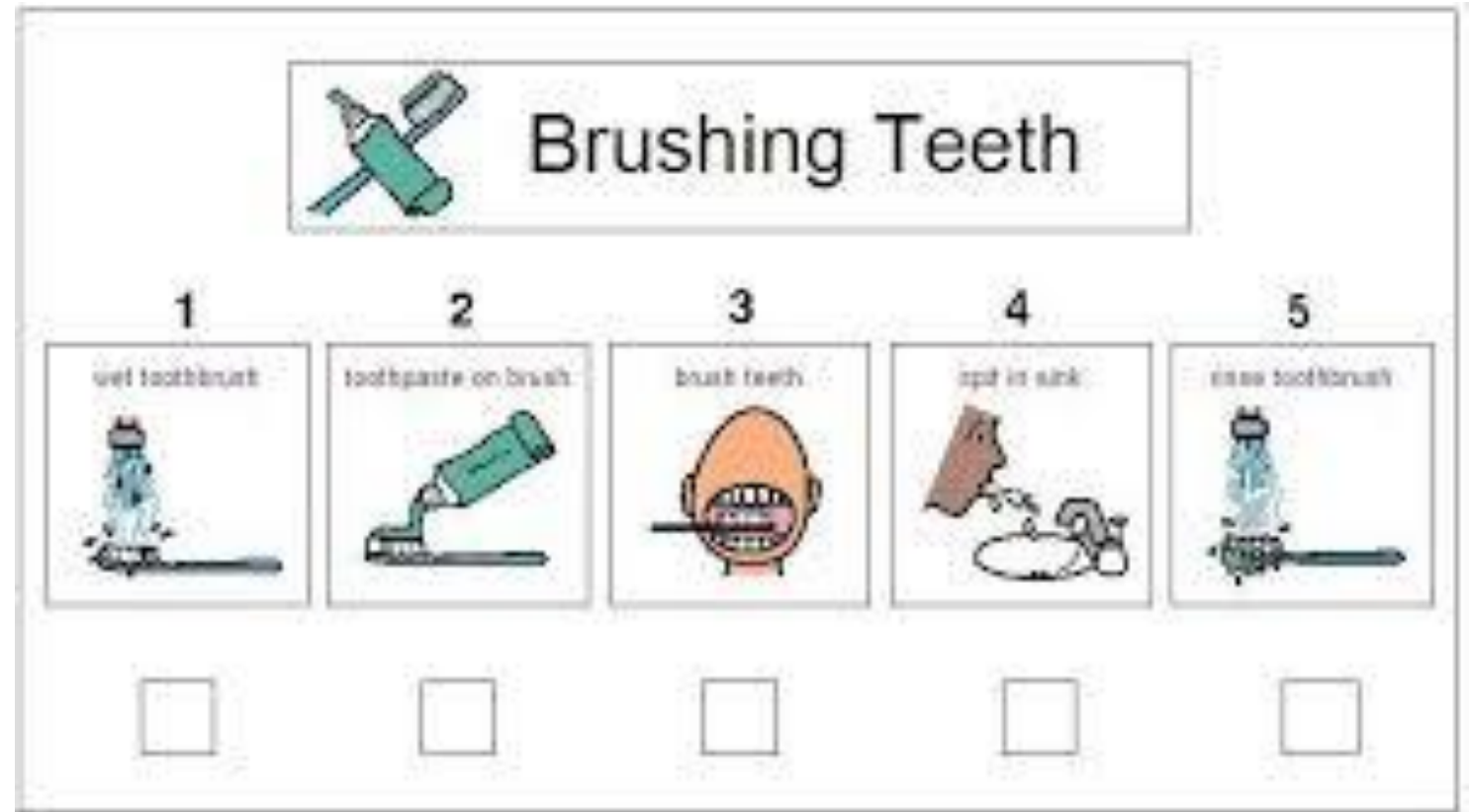


Project SPARKLE, 2006

Important Concepts to Consider

How things are sequenced

- Beginning/end
- Order of activities
- Time concepts



Important Concepts to Consider

How the world works

- Routines
- Cause and effect
- Purpose and use of objects
- Where things come from
- The natural world and its cycles and laws



Important Concepts to Consider

Self Concept (the mental perception one has of oneself)

- I exist and have feelings
- I can do things
- I affect people and objects around me



Important Concepts to Consider

Social Concepts

- Greetings and introductions
- How to play
- Expectations in social situations



Literacy and the Communication Matrix

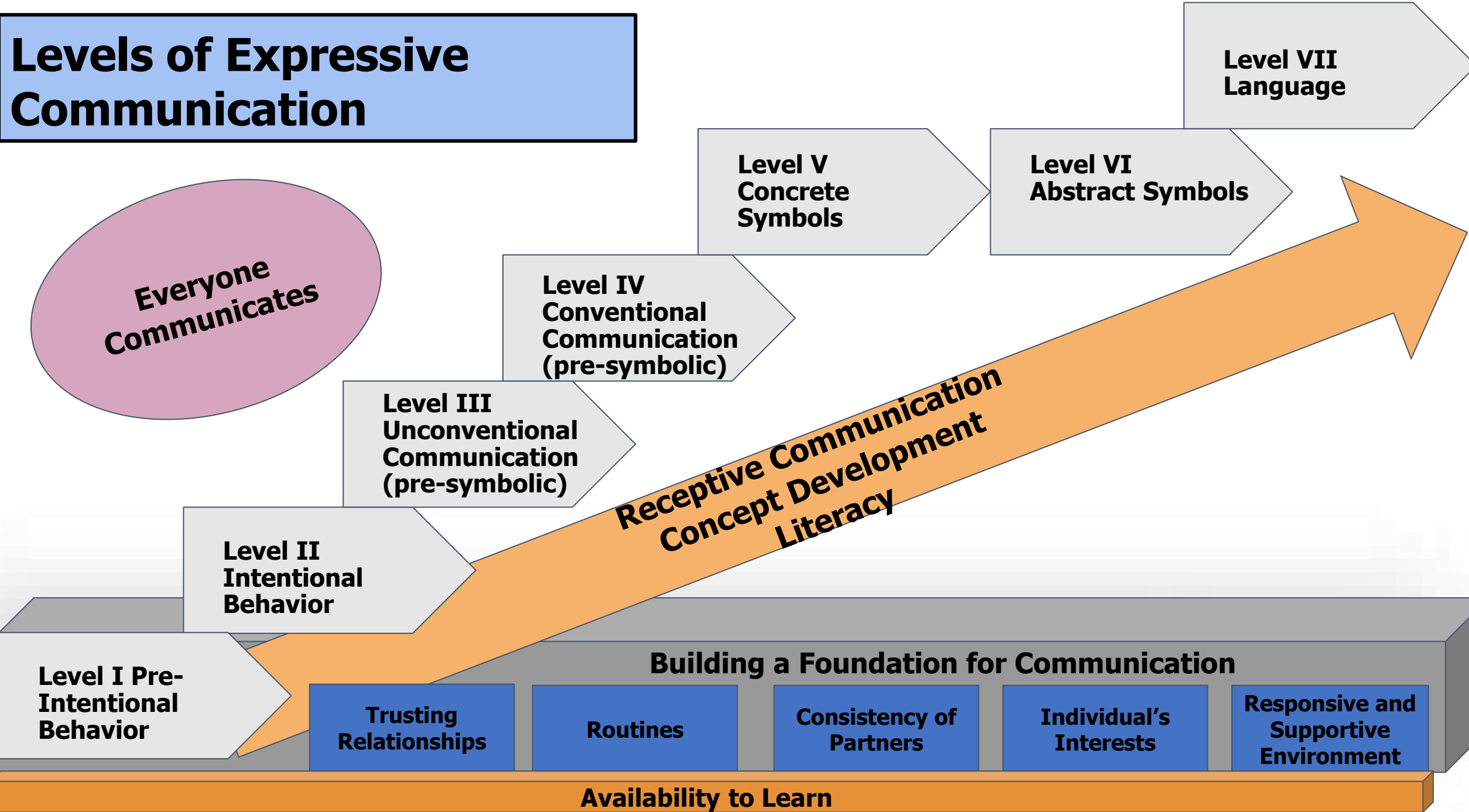
- Communication, language, and literacy are all connected.
- In typical development, literacy develops hand-in-hand with communication and language.
- Individuals who need targeted intervention for expressive communication development will similarly need targeted intervention for developing literacy.



Intervention:
Essential
Strategies

Levels of Expressive Communication

Everyone Communicates



Availability to Learn

Availability to Learn

Internal Factors
External Factors



Internal Factors: What's happening **inside** the body and brain?



- How does the individual feel physically and emotionally?
- Do they have any medical conditions?
- Are they ill or in pain?
- How do medications affect them?
- How much sleep have they had?
- What influences their visual, auditory, tactile, and motor abilities?
- Do they have any difficulties with sensory processing or sensory integration?

External Factors: What is happening **outside** the individual that may positively or negatively influence communication?

- Lighting
- Sound
- Background noise
- Smells
- Movement
- Tactile input
- The number of people that are around
- Physical supports, positioning, or equipment
- Clutter (visual, physical, tactile)



Build a Trusting Relationship

- Time for bonding
- Feeling safe
 - Positioning and supports
 - Orientation
- Someone is in MY world
- Everyone has a name
- Keep in mind the individual's prior experiences
- Process time

**Trusting
Relationships**



Routines

Routines

A routine is a related series of activities:

- organized into a **predictable** format;
- offering opportunities to develop communication skills and concepts; and,
- supporting opportunities to develop relationships.

Routines provide the structure on which the individual connects their own experiences and builds concepts.

Examples: arriving at school, mealtime, reading a book, circle time



Consistent implementation of routines serves to organize an individual's activities, increase understanding, and decrease stress.

Benefits of Routines



- Individual learns to **anticipate**.
- An individual feels **safe** when there is understanding.
- **Stress** is reduced in a predictable routine.
- Concepts are introduced, laying the foundation for communication and all learning.

Components of a Routine

Effective routines have a beginning, middle, and end.

- **Initiate** – How will the individual know it is time to begin?
- **Prepare** – What does the individual need to do to be ready?
- **Perform Activity** – How will the individual participate *or partially participate*?
- **Terminate** – How will the individual know when the activity is over?



It's important to think about each step of a Routine/Activity

- <https://goblin.tools/>

Consistency Of Partners

Consistency of Partners

Partners should:

- Have a consistent way to communicate with the individual
- Have a consistent way to respond to communicative intents

Teaming is critical for consistency.

- Determine how the communication partners, including family and peers, will share information
- Select a method to share (One Drive, Google Docs)
- Select a tool to use among team members

Consistency is critical across multiple environments.



Individual's Interests

Individual's Interests

- Use topics/activities that the individual wants to talk about, not the partner. The higher the interest, the more motivating and the greater the success.
- Begin with experiences known and preferred by the individual (park, grandma's, pets, highly motivating activities, people closest to the individual). Reminder: Learning goes from the known to the unknown.
- Likes/dislikes are often based on the world the individual knows and their abilities. Systematically identifying these interests helps the team determine what motivates the individual. It will help to understand where to begin and how to increase opportunities to learn new concepts.





"LIKES" INFORMATION



Child:

Date:

FOODS taste/ texture	SMELLS	TOUCH texture/ hugs/ fabrics light - heavy	MOVEMENT rock/ bounce swing	VIBRATION car ride toys/ appliances	SIGHTS lights/colors	SOUNDS voices/ music pitch/ loudness environmental

MUSCLES push - pull bear weight	PEOPLE	PLACES	ACTIVITIES	TOYS	SELF STIMULATION BEHAVIORS	OTHER

"DISLIKES" INFORMATION



Child:	Date:
---------------	--------------

FOODS taste/ texture	SMELLS	TOUCH texture/ hugs/ fabrics light - heavy	MOVEMENT rock/ bounce swing	VIBRATION car ride toys/ appliances	SIGHTS lights/colors	SOUNDS voices/ music pitch/ loudness environmental

MUSCLES push - pull bear weight	PEOPLE	PLACES	ACTIVITIES	TOYS	SELF STIMULATION BEHAVIORS	OTHER

Provide an Optimal Environment

**Responsive and
Supportive
Environment**

Collaboration is critical from all related service providers in order to create an optimal environment.

Proper positioning and supports are essential to communication facilitation.

- Individual is supported to stabilize head and trunk.
- Structure the environment - quiet with minimized distractions.
- Grounded and comfortable with the individual's feet on floor/block when seated or footrest on a wheelchair.
- Positioned to support development of controlled movement.
- Vision and hearing use is maximized and/or accommodated.

My Cue Dictionary

TOUCH or OBJECT CUE	It is used to communicate this MEANING	My partner will DO this ...	What is expected from ME

My Pre-Symbolic Signal Dictionary

[illegible]

Communication Dictionary

Team Members

Date updated

Final document--
include in IEP

A Communication Dictionary is a team communication tool to document the best guesses and hypothesis of non-symbolic

					Visual/Tactile
What student does	What we think it might mean	What you should do	What you should say	Other Notes	Supports to provide

Questions???