

The Communication Matrix
Rowland, 2004



**Communication Functions:
(The Communication Matrix)**

- 4 REASONS FOR COMMUNICATING -
- Horizontal -

- Refuse
- Obtain
- Social
- Share information

**THE COMMUNICATION MATRIX
PROFILE**
Rowland, 2004

- Communication Skills Development
 - vertical
 - Pre-intentional communication (Level I)
 - Intentional communication (Level II and III)
 - Pre-symbolic behaviors
 - Nonconventional behaviors
 - Conventional behaviors
 - Symbolic Communication (Level IV, V, VI, VII)



Level I
Pre-intentional Behaviors

- ☞ Behaviors
 - and communication are one and the same
 - are reflexive or reactive
 - NOT purposeful
 - associated with states of being (discomfort, comfort, closeness)
- ☞ WE do ALL of the interpreting!

Level I

- ☞ Speech:
 - cry,
 - gurgle,
 - coo,
- ☞ Physiological:
 - Breathing rate
 - Drooling
 - Heart rate

Level I

- ☞ Motor:
 - Head movements,
 - Postural movements or change,
 - Limb movements,
 - Trunk movements,
 - Leg movements,
 - Change in tone, rate,



Level I

☛ Technology/Access

- Place an access switch near the body part that moves with the least amount of effort by the student
- Go for independence (do not touch the student once set up)
- Activation will be random at this point
- The experience will do the teaching

Level I

☛ Receptive:

- VISUAL
 - Awareness of your face, objects used during an interaction,
 - Localization to lights, high contrast objects, pictures, toys,
- AUDITORY
 - Localization to sounds
 - Response to rhythms (music, chants)
 - Seems to recognize familiar voice, people

Level I

What should we do?

Be responsive to the child!!



Never underestimate a student's ability to use some mode of communication.

Consider: heart rate, respiration, facial muscles, lower extremity movement.

Level I

⊕ It is NOT appropriate to:

- Remember that behaviors at this level are not purposeful!
- If you think that the child is demonstrating behaviors ON PURPOSE, then the child is NOT communicating at a level !!!

Level II

Intentional Behavior

- ⊕ Behaviors
 - Appear to be more intentional
 - are not intentionally communicative
- ⊕ Child does not
 - realize that they can control another person by using their behaviors
 - typically use their eye contact to their advantage (to engage you)
 - know to wait for a response from the adult
 - have dual orientation (joint attention) yet!



Level II

Nevertheless, some of these behaviors serve a communication function...why?

Because teachers and parents interpret them as communicating something!

Level II

- ↪ Children direct their behavior directly on objects (want/reject)
- ↪ Children direct their behavior directly to you (want/reject)
- ↪ But you do not know what or who!
- ↪ Behaviors should be a bit more differentiated (vary according to the situation or need) and not as difficult to interpret. But you are still doing the guessing!

Level II

- ↪ Speech
 - Cry,
 - Gurgle,
 - Coo,
 - Fuss,
 - vocalizes



Level II

☞ Movement:

- Head movement toward object
- Head movement toward person
- Lean toward or away
- Approaches object or person
- Pushes away, swipes at reaches toward
- Facial expressions
- Clearer and stronger preferences
- Knows what child likes and doesn't like!

Level II

☞ Technology:

- Contingency awareness (general cause & effect)
- Learning to use an access switch or a big mac!
- May repeatedly "hit the switch" without waiting for a response



Level II

☞ Receptive:

- Localizes, more aware of environment,
- Showing more attention, concentration,
- Seems to be listening and showing "interest"
- Attentive to objects, pictures,



Level II

- What should we do?
 - We should be responding to potentially communicative behaviors so that the child becomes aware of its communicative purpose and through our reactions, can begin to direct behaviors TO US!
 - Show the child symbols, narrate events, talk to child, use objects as symbols!
 - Scripting, use of a VOCA turn-taking
 - Assign VALUE to objects/symbols!

Social reinstatement !

- Many students need
 - »BIG behaviors to reinstate!
 - »Come here ...go away!

Level II

- Not Appropriate:
 - “Time – out” is still too complex because the child doesn’t have dual orientation or contingency awareness!



Level III
 Nonconventional, Pre-symbolic Communication

- ⤵ This is a CRITICAL stage!!
- ⤵ Our students communicate intentionally!! 😊
- ⤵ But... communication is not conventional:
 - Push pull, movement, eye gaze
- ⤵ Child uses these behaviors- but they direct their behaviors to you and are learning to wait!
- ⤵ However, still not socially acceptable to all.
- ⤵ These behaviors are extremely effective.

Analysis of Communication

- ⤵ Involves:
 - Social skills,
 - Cognitive skills,
 - Vision,
 - Hearing,
 - Oral-motor skills,
- ⤵ Elements of Communication
 - The SENDER
 - The RECEIVER
 - The TOPIC
 - The Means of EXPRESSION
 - INTENT of the speaker

Triangle of Communication



Level III

☛ Technology/Access:

- Child appears to understand cause and effect!
- Child waits and is learning to operate switches appropriately,

Level III

☛ Receptive:

- Appears to anticipate routines,
- Responds to name,
- Understands some directions
- You can direct child to look, listen to something
- Seems aware of symbols (type?)

Level III

☛ What should we do?

- Let the child use push/pull!
- Offer our hand (hover) to allow the child to continue to develop this!
- Use symbols receptively (to) the child!! Embed during play, transitions, during travel !!
- Okay to start PECS phase I training, other symbol training, simple device / introduce choice making,
- Scripting, use of a VOCA turn-taking



Level III

- ⦿ Not appropriate:
 - Overload the child,
 - Teach one new thing at a time,
 - Child may use level II behaviors at any time (i.e., when sick, stressed, overload)
 - Remember that the auditory system is “the first to go” ...most transient. Reprimands presented in a “if you do this then that” mode are still too hard even though child is using some cause/effect skills.

**Early, pre-symbolic communicators:
(behaviors to read and perceive)**

⦿ Change in position, posture	⦿ Approaches person or object
⦿ Limb movement	⦿ Gesture
⦿ Head movement	⦿ Looks at object or person
⦿ Facial expression	⦿ Takes object
⦿ Vocalization	⦿ Reaches towards object/person
⦿ Move away from object	⦿ Touches object
⦿ Push away object or person	⦿ Activates switch

Level IV
Conventional, Pre-symbolic Communication

- ⦿ Our students communicate intentionally!! 😊
- ⦿ Communication IS conventional!
 - Socially acceptable,
 - Understood by anyone, universal.
- ⦿ Child has dual orientation / cause-effect
 - Child can act on BOTH a person & a symbol
 - May be multi-modal or
 - Cross modal
 - Difficult to establish these abilities without vision-
 - Difficult to establish if too overwhelmed sensory system



Level IV

☛ Speech:

- Intonated sound patterns
- Vocalizations accompany gestures
- WAITS for a response,
- Alters sounds or inflection if not successful

Level IV

☛ Receptive:

- Appears to anticipate routines,
- Responds to name,
- Understands more directions
- You can direct child to look, listen to something
- Seems aware of symbols (type?)
- You can direct child to look, listen to something
- YES / NO start using it!

Level IV

☛ Technology/ AAC

- Moving to two-choice or more options
- Yes and no (watch for difficulty of question!)
- Partner assisted scanning
- Eye gaze board
- Symbols are
 - Valuable!
 - Powerful!
 - Consider easiest symbol to understand!



Level IV

- ☛ Gestures / Universal signs:
 - Waves,
 - Points,
 - Distance pointing
 - May be beginning to nod head for yes/no
 - Other simple gestures emerging (come, bye, hi, me)

Level IV

- ☛ What should we do?
 - Teach 1:1 correspondence between symbols and what they represent
 - PECS
 - Other choice-making systems
 - Technology
 - Embed communication devices within activities to give the child a feeling of control

Level IV

- ☛ Consider:
 - To expect maximal communication abilities across all situations
 - Do not pressure student to communicate symbolically all of the time!
 - Expect lots of errors
 - Be aware of your cueing
 - Technology
 - Be ready for change



Level V
Concrete Communication

- Our students are using concrete symbols
- Symbols represent specific objects or people!
 - Bear a 1:1 relationship to a specific referent
 - Clear perceptual relationship to the referent (easy to understand)
 - Symbols physically are similar to its referent
 - Access may vary

Level V

- Speech:
 - Mimic sounds
 - Echolalia
 - Limited repertoire
- Gestural:
 - Depictive gestures
 - Multi-modal expression
- Single icons/symbol use

Level V

–Consideration to expand to sequencing icons or large single icon usage



Level VI
Abstract Symbolic Communication

- Students are using single icons with gestures or objects available to them!
- Keep students moving and their core vocabulary should be with them at all times!


Level VII
Abstract Symbolic Communication

- Our students are using concrete symbols and beginning to sequence them and combine with their gestures or objects available to them!
- Access may vary
- Understandable by strangers
- May be starting to use a more sophisticated AAC device to house so much vocabulary!


Where on the Matrix?

- Grimacing due to not feeling well
- Pulling teacher to the door
- Bring an empty cup to a staff person
- Taking your hand and putting it on the refrigerator door
- Handing an icon to you with a picture of a toy
- Standing by the door




 **Symbol Systems can be Receptive or Expressive!**

- Some systems TELL the student about an activity, task or sequence of the day
- Some systems are used for the student to express themselves during classroom routines

 **The Communication Matrix**

- Let's try it!

 **Questions?**

- Questions?
- Comments?

