Seven (and more!) Deadly Communication Sins in Programming for Students with Significant Disabilities

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It all started with data…

(Kearns, J., Towles-Reeves, E., Kleinert, H., Kleinert, J., & Thomas, M., 2011; Kearns, J., Towles-Reeves, E., Kleinert, H., & Kleinert, J., 2009).
You Might Be Surprised!

Descriptions based on a simple set of descriptors for:

- Receptive Communication
- Expressive Communication
- Engagement
- Use of AAC
LCI and 7 Levels Communication Matrix

Expressive Communication (check mark indicates our student’s level)

• **Symbolic:** Uses recognized symbols to communicate: Student uses verbal or written words, signs, Braille, or language-based augmentative systems to request, initiate, and respond to questions, describe things or events, and express refusal.

• **Emerging-symbolic:** Uses intentional communication, but not at a symbolic language level: Student uses understandable communication through such modes as gestures, pictures, objects/textures, points, etc., to clearly express a variety of intentions.
  – *Sub-levels from Rowland’s Communication Matrix*
    • Concrete symbolic: Use of gesture, tangible objects or pictures
    • Conventional Pre-symbolic: use of gaze, point, head shake
    • Non-conventional Pre-symbolic: uses whine, push away

• **Pre-symbolic:** Communicates primarily through cries, facial expressions, change in muscle tone, etc.; no clear use of objects/textures, regularized gestures, pictures, signs, etc.
Expressive Language Across Grade Bands
Data from Seven States

Elementary School
- Symbolic: 65.13%
- Emerging Symbolic: 12.12%
- Presymbolic: 19.08%

Middle School
- Symbolic: 72.57%
- Emerging Symbolic: 7.58%
- Presymbolic: 17.03%

High School
- Symbolic: 72.18%
- Presymbolic: 8.68%
- Emerging Symbolic: 12.02%
Receptive Communication (check mark indicates our student’s level)

- **Symbolic:** Independently follows 1-2 step directions presented through words (e.g. words may be spoken, signed, printed, or any combination) and does NOT need additional cues.

- **Emerging-symbolic:** Requires additional cues (e.g., gestures, pictures, objects, or demonstrations/models) to follow 1-2 step directions.

- **Pre-symbolic 1:** Alerts to sensory input from another person (auditory, visual, touch, movement) BUT requires actual physical assistance to follow simple directions.

- **Pre-symbolic 2:** Uncertain response to sensory stimuli (e.g., sound/voice; sight/gesture; touch; movement; smell).
Receptive Language
Data from Seven States

Across grades

- 48% Follows Directions
- 40% Requires Cues
- 9% Alerts to Input
- 3% Uncertain Response
However

Despite the high level of engagement,

Despite the fact that most students were responding to linguistic input,

&

Despite that fact that students were clearly communicating in some way even if they did not have symbolic language (an average of around 30% of the students)…
Use of Augmentative Communication Systems

Percentage of Students Using AAC by Expressive Language Levels

- Symbolic
- Emerging
- Presymbolic

State 1  State 2  State 3  State 4  State 5  State 6  State 7
AAC Findings

Roughly only 50% of the students in the emerging or pre-symbolic level use AAC -

despite the fact that 90% of students in the Alternate Assessment engaged socially with others.

Ouch!
Evidence Based Practice from 20 years in Communication Programming for Students with the Significant Intellectual Disabilities

Snell et al, 2010

• 116 articles published between 1987 and 2007 in refereed journals
  – described a communication intervention
  – involved one or more participants with severe intellectual and developmental disabilities

• The evidence reviewed indicates that 96% of the studies reported positive changes in some aspects of communication.

• These findings support the provision of communication intervention to persons with severe intellectual and developmental disabilities.
Other Research: Rowland & Schweigert (2000)

• In the beginning of the study many of the students were “presymbolic” – they had not made the association between a *thing* and what it might represent.

• The GOAL was to move students along the gradient from pre to symbolic communication as judged by a seven level descriptor of expressive communication behaviors
• The instruction provided amounted to 15 to 20 minutes per school day for an average of 6.5 months.

• Of 41 participants, 35 acquired tangible symbols during direct intervention.

• 28 of those 35 learned novel symbols within the first three exposures.
“...progress through different levels of representation did not occur in a predetermined sequence, nor did it require experience with every level of representation.” p.73
Nothing New Under the Sun!!

- All Behavior communicates, therefore
- A student cannot not communicate.
- All behavior communicates something! (McDonald, 1970)
The Two Ends of the Continuum

• Examples
This Cannot Continue!

- Examples
What We Should See (Examples)
Intervention Model

- Specialized Intervention
  Training, Coaching, & Technical Assistance to advance levels of symbolic language use

- Advanced training in communication identification and language Development

- Basic training in communication identification and language development

TAALC - Teaching Academic Age-appropriate Learning via Communication
So What have We Learned About Communication Programming??
There are some DEADLY SINS OUT THERE

• #1: Not recognizing the presence of communication AND shape idiosyncratic forms into more sophisticated communications:
A Quick Review: What is Communication

• We MUST have a commonly understood definition of communication when working with students with significant disabilities.
INTENT MODE
Listener Comprehension
Successful Communication
Communication vs. Language (Symbolic Level)

• **Language** – implies standardization, rules, and **symbols**; implying mutual understanding by the individuals who share knowledge of the language system

• **Communication** – implies a much broader set of output behaviors and combinations of output behaviors which may or may not be of a **standardized form**, but which convey intent and are understood and “readable” (HOPEFULLY) by the listener
Remember...

A student can have Symbolic Understanding & Receptive Communication, but not use Symbolic Communication **EXPRESSIVELY**.
We ALL must be able to:

• Identify intents our students’ intents.

• Identify HOW the student expresses intent. (FORM)

• Determine if others understand.

• Improve the LEVEL, Variety, Type and Quality of our students’ communications.
A simple Way to Identify Communication Levels

• Can I Identify Communication with *my* students?
Let’s Go:
Watch a student and...

- List the **intents** you read.
- List the **forms** the student uses.
- Is the student **understood**?
- Does he get the **desired response**?
- Then we will show examples of shaping idiosyncratic communications into more sophisticated forms
| Content-Intent-Function | Mode or Form | Desired Response???
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# 1 Not Recognizing Communication

- Pre/post
S

• Example
What Am I Saying

• Example here
#2: Testing not Teaching

#3 Object Identification vs Use of objects in meaningful contexts

#4 Having students make a choice BUT then taking the choice away
# 2, 3, 4

- Example here
#5 Complicating Communication with Motor Requirements

- Example pre/post here
#6 Labeling Students as “Unmotivated”

• Example pre/post here
#6 Labeling Students as “Unmotivated

• 3 post Examples here
#7 Touching without Telling

• Example here
# 8: The Dreaded “Yes/NO”

- Example here
• 3 post g here
#9 Using Devices in a “NON-Communicative” Way

- Example with the fan and switch here and then his post tape with the opposite story
# 10 Dismissal from Services Due to Lack of Progress

- Just pix of S and B here as a reminder of what happened to them
#11 Compliance vs Communication

S Example
#12 Waiting for “Readiness” or “Pre” Means “Never”

- All children communicate
- Meet the student where he/she is
- Use and accept multiple forms of communication
- Teach all adults in contact with the student to “read” his/her communications
- Give MULTIPLE OPPORTUNITIES FOR COMMUNICATION PRACTICE
#13 Not Collecting Data
## Communication Matrix

<table>
<thead>
<tr>
<th>Schedule / Communication</th>
<th>Request attention</th>
<th>Receive Information</th>
<th>Express Preference</th>
<th>Make a Choice</th>
<th>Refuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Activities</td>
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<td>Reading</td>
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<td>Recess</td>
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<td>Lunch</td>
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<td>Social Studies</td>
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<td>Science</td>
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Overall Changes in Expressive Communication for TAALC Project

<table>
<thead>
<tr>
<th>Student Description</th>
<th>Expressive Communication Status</th>
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<tbody>
<tr>
<td>Student 1 Kindergarten</td>
<td>Pre-symbolic</td>
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<tr>
<td>Student 2 9th grade</td>
<td>Emerging</td>
</tr>
<tr>
<td>Student 3 12th grade</td>
<td>Symbolic</td>
</tr>
<tr>
<td>Student 4 7th grade</td>
<td>Symbolic</td>
</tr>
<tr>
<td>Student 5 3rd grade</td>
<td>Emerging</td>
</tr>
<tr>
<td>Student 6 1st grade</td>
<td>Pre-symbolic</td>
</tr>
<tr>
<td>Student 7 3rd grade</td>
<td>Pre-symbolic</td>
</tr>
<tr>
<td>Student 8 3rd grade</td>
<td>Emerging</td>
</tr>
<tr>
<td>Student 9 11th grade</td>
<td>Symbolic</td>
</tr>
<tr>
<td>Student 10 5th grade</td>
<td>Emerging</td>
</tr>
</tbody>
</table>

(Expressive Communication)

3 = Symbolic  
2= Emerging  
1= Pre-symbolic

(Holman, A. 2011)
Changes in Students Remaining at Emergent Level of Expressive Communication

• Five students remained at emergent-symbolic level of Expressive Communication, but increased the complexity of communicative behaviors as judged by:

• Of these five students, 100% demonstrated an increase in complexity of expressive communicative output.

• 80% (4 out of 5 students) increased to the highest level of emergent-symbolic communication, indicating they were very close to true symbolic communication. (Holman, 2011)

• [Rowland Comm matrix system](http://communicationmatrix.org/sevenlevels.aspx) 7 levels rowland
Changes in AAC Status of Students using the Learner Characteristics Inventory

• Three students had NO AAC system in place and obtained an AAC system during participation in the project.

• 67% of students increased the complexity of the AAC system used.
  – Two students (22%) moved up two levels.
  – Four students moved up one level (44%).
  – Three students (33%) remained the same in the complexity of AAC system, but each student moved from physical prompting to more independent use of device.

(Holman, A. 2011)
**Type of AAC as described by the Learner Characteristics Inventory**

0 = No AAC system implemented
1 = Uses only one symbol or sign at a time and is able to use only a few symbols in total to express simple or early intents
2= Can combine two symbols together to express broader intents such as social content, answer simple questions, etc.
3= Uses mostly iconic symbols or signs together in sequence to express functional intents, extensive social interactions, academic content, and to respond consistently to answer questions.
4= Uses multiple abstract symbols, signs, or print in sentences or phrases on the AAC system to express a variety of academic, social, and self-initiated interactions.

**Student 5 did not require AAC**
A Telling Comment

“Our student didn’t change, we changed. We learned to read his communication and acknowledge it. That’s what made the difference!”
The stars beckon.
To Infinity & Beyond.....
Resources


• Charity Rowland Communication Matrix website [http://www.communicationmatrix.org/](http://www.communicationmatrix.org/)


