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.
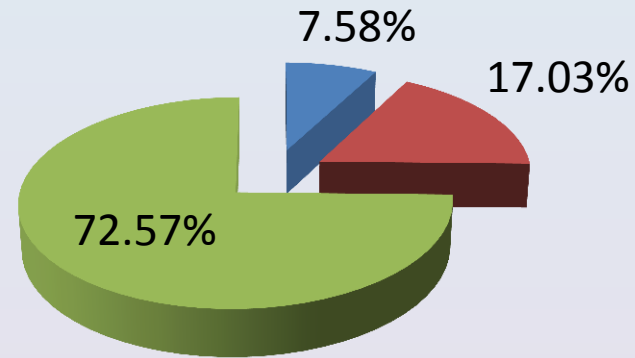
Expressive Language Across Grade Bands
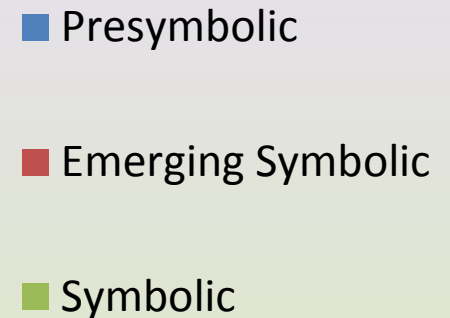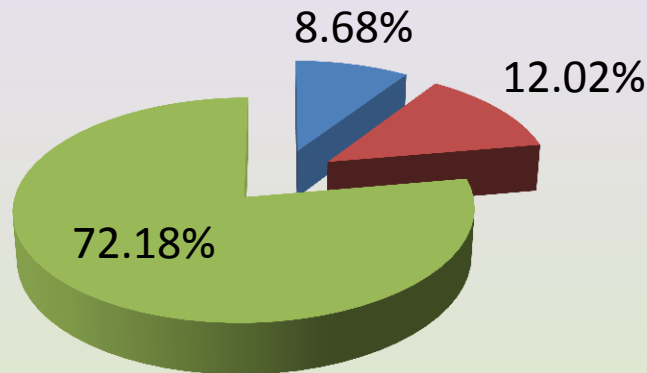## Data from Seven States
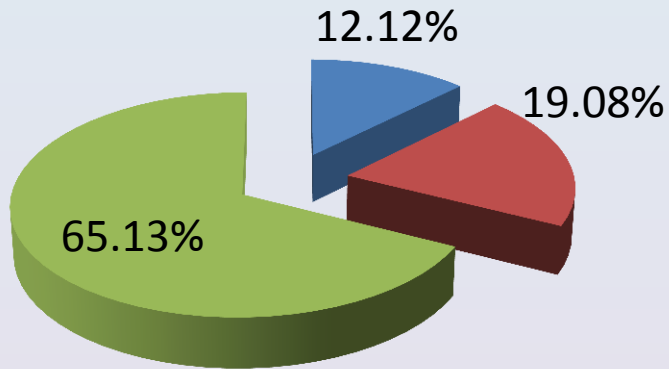
Receptive Communication (check mark indicates our student's level)

- *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

- Follows Directions
- Requires Cues
- Alerts to Input
- Uncertain Response

40%
9%
3%
48%
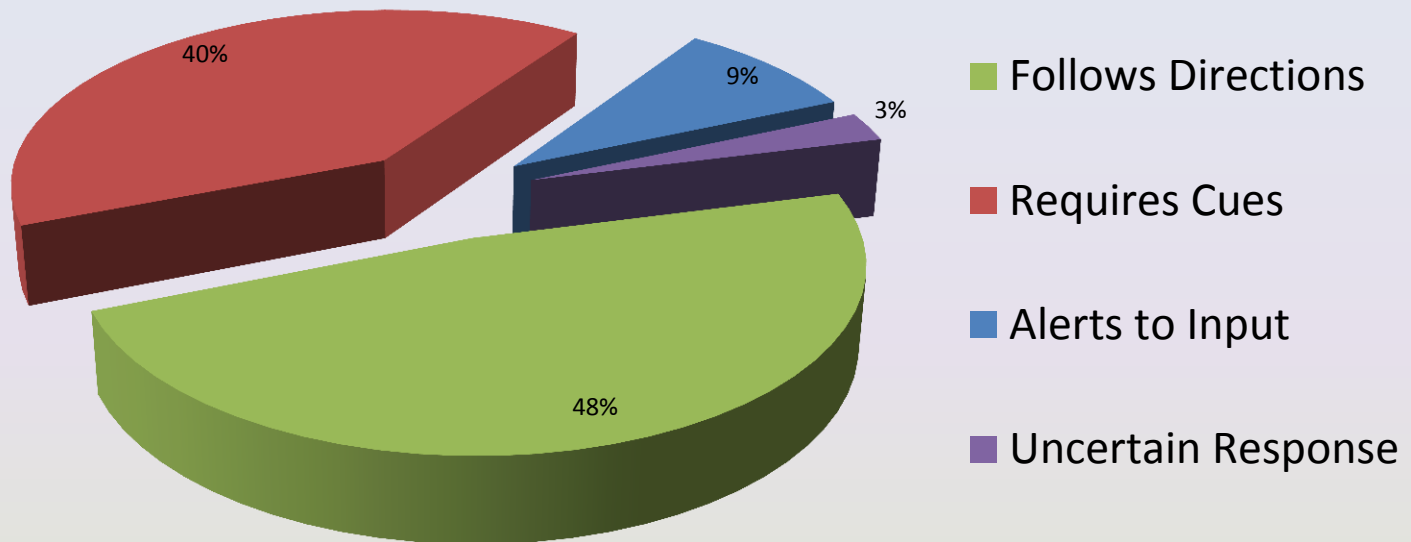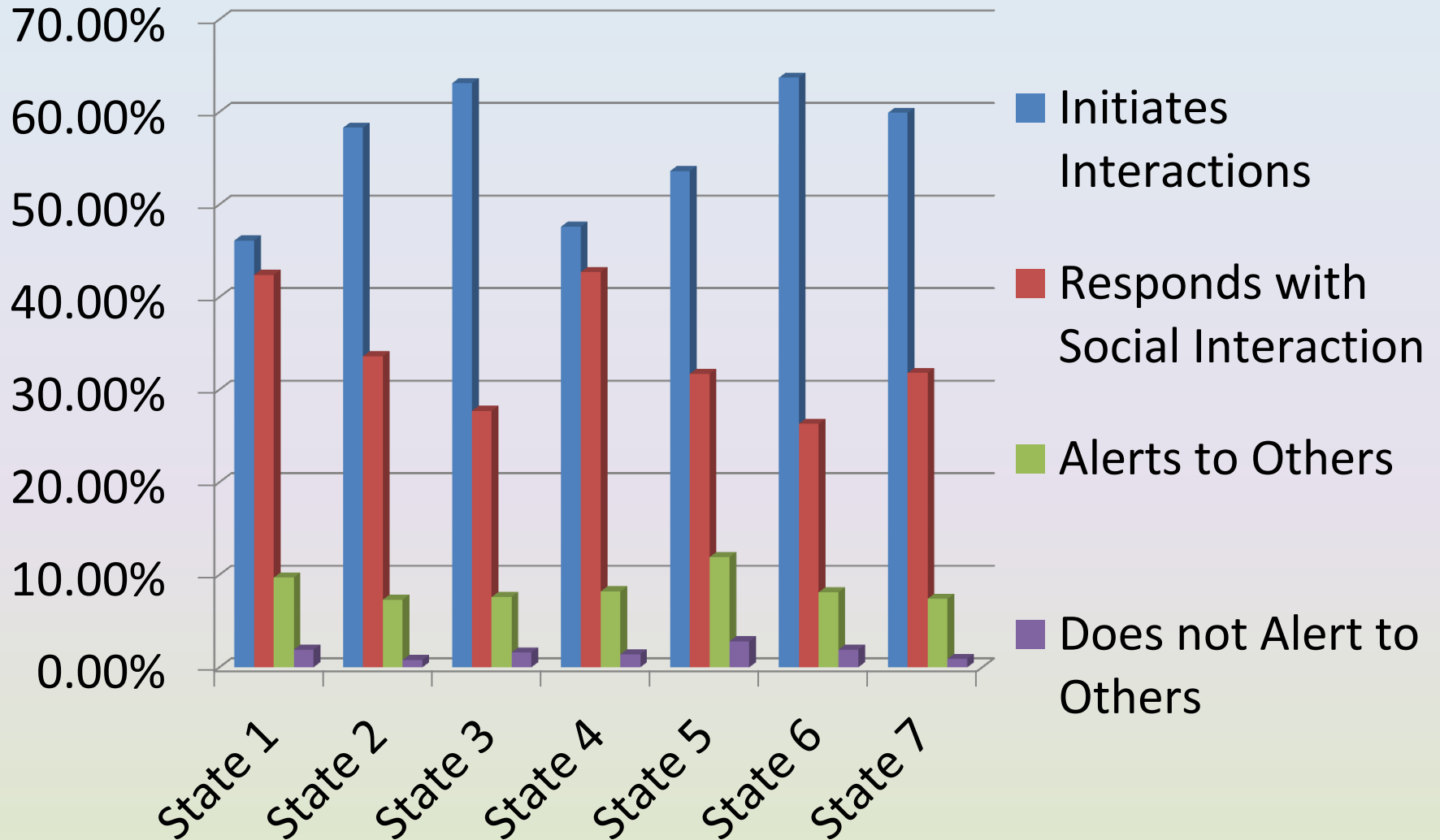
Engagement

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
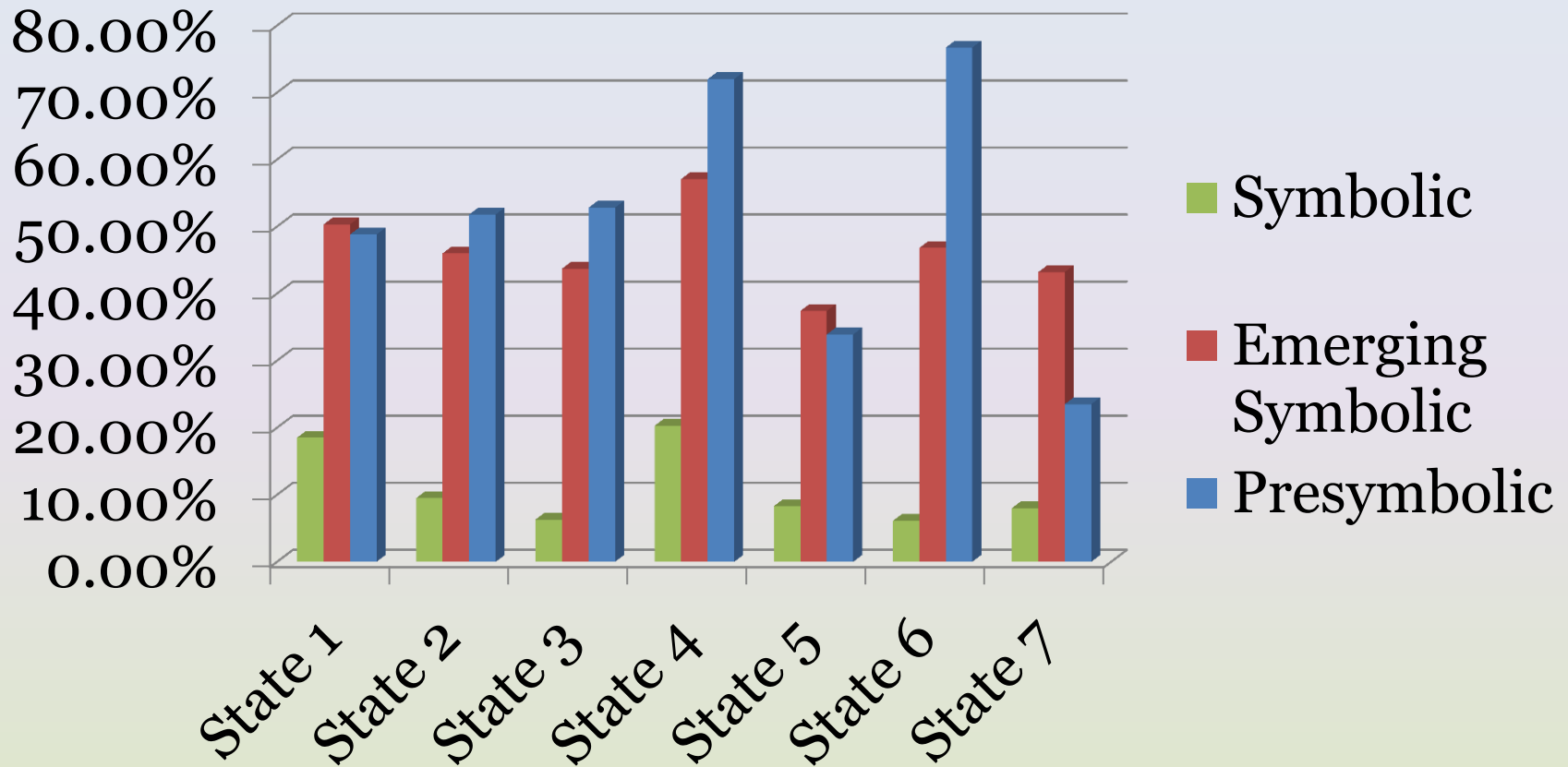
AAC Findings

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

- 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

Rowland & Schweigert, cont.

- 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**.

Rowland & Schweigert, cont.

- "...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
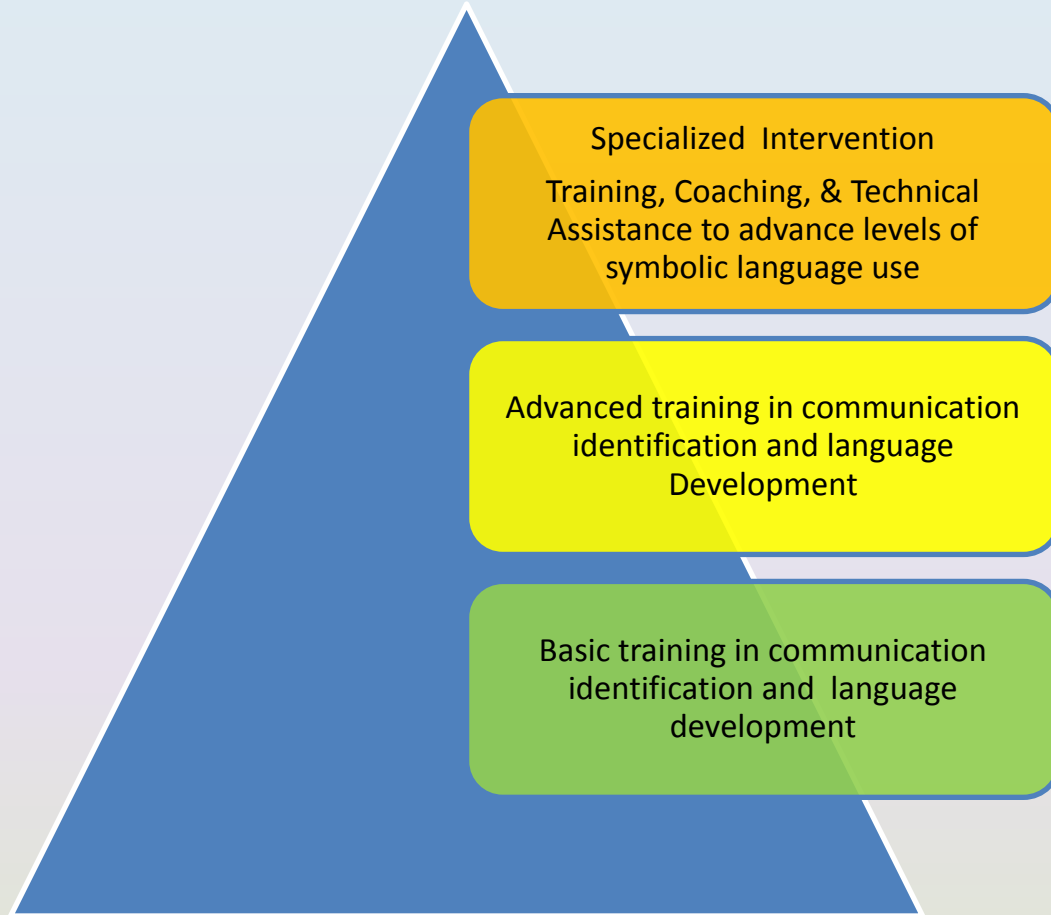
TAALC - Teaching Academic Age-appropriate Learning via Communication

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
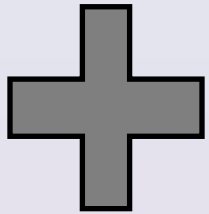
INTENT
MODE
Listener
Comprehension

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

Let's Try This

Content-Intent-Function	Mode or Form	Desired Response???

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

Schedule / Communication					
	Request attention	Receive Information	Express Preference	Make a Choice	Refuse
Opening Activities					
Reading					
Writing Workshop					
Specials					
Math					
Recess					
Lunch					
Social Studies					
Science					

Overall Changes in Expressive Communication for TAALC Project
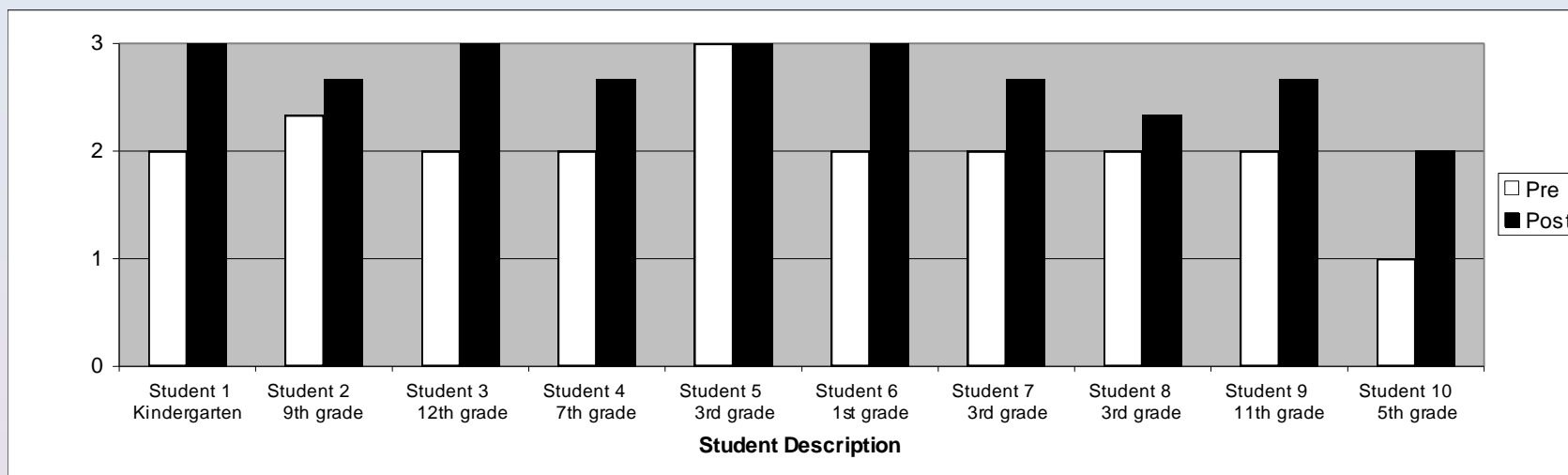
Expressive Communication

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:
  - *Seven Levels of Communicative Competence* by Rowland & Schweigert (2011, 1989).

- 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)

Changes in Complexity of AAC
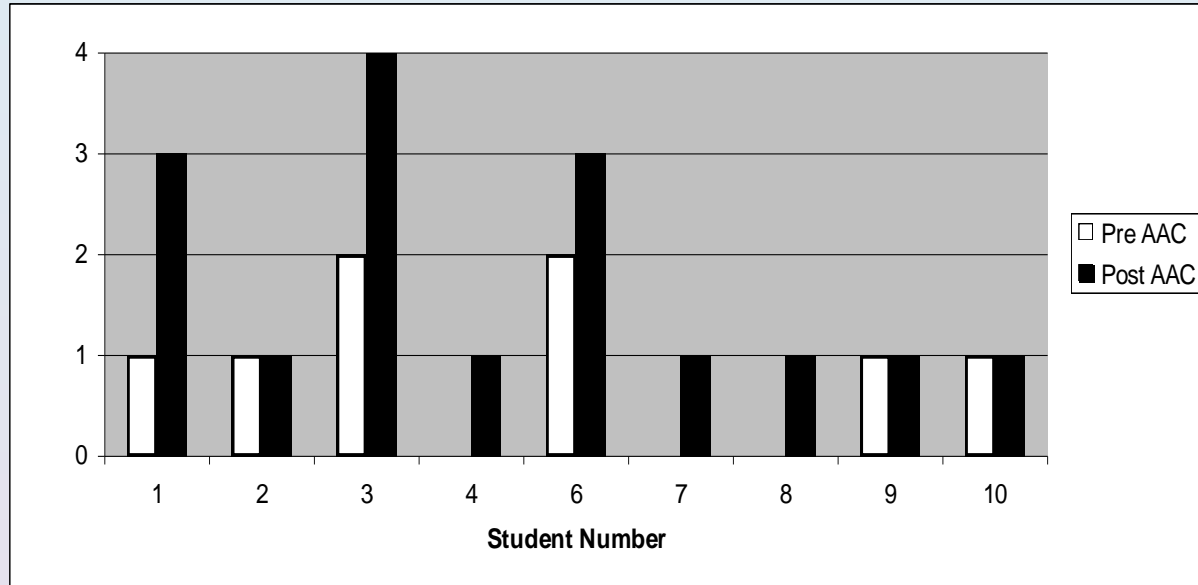
Student 5 did not require AAC

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.

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

- Beukelman, D.R., & Mirenda, P. (2005). *Augmentative and Alternative Communication (3rd ed).* Baltimore, MD: Paul H Brookes. ISBN-10: 1-55766-684-9 http://www.brookespublishing.com/store/books/beukelman-71967/index.htm

- Charity Rowland Communication Matrix website http://www.communicationmatrix.org/

- National Joint Commission for Communication Needs for Persons with Severe Disabilities http://www.asha.org/njc/

- American Speech-Language-Hearing Association. (2010a). *Schools Survey report: SLP caseload characteristics trends 1995–2010*. Available from www.asha.org.

- Calculator, S., & Black, T. (2009). Validation of an inventory of best practices in the provision of augmentative and alternative communication services to students with severe disabilities in general education classrooms. *American Journal of Speech-Language Pathology*, *18*(4), 329-342.

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- Romski, M., & Sevcik, R. (2005). Augmentative communication and early intervention: Myths and realities. *Infants & Young Children: An Interdisciplinary Journal of Special Care Practices*, *18*(3), 174-185.

- Rowland, C. (2011). *Seven levels of communication.* Retrieved from http://www.communicationmatrix.org/sevenlevels.aspx.

- Snell, M., Brady, N., McLean, L., Ogletree, B., Siegel, E., Sylvester, L., et al. (2010). Twenty years of communication intervention research with individuals who have severe intellectual and developmental disabilities. *American Journal on Intellectual and Developmental Disabilities, 115*(5), 364-380.

- Towles-Reeves, E., Kearns, J., Kleinert, H., & Kleinert, J. (2009). An analysis of the learning characteristics of students taking alternate assessments based on alternate achievement standards. *The Journal of Special Education, 42*(4), 241-255.