The Use of Core Vocabulary in the Classroom

Taiwan, February 2014

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AAC intervention in the classroom

- What are the challenges?
- Why do we experience these challenges?
Some thoughts:

* **Communication system:**
  - Imposing a new system into natural interaction situation
  - Difficulties in getting to use this system as it is atypical (intrusive)
  - Complicated (demanding to use) – need to do it one step at a time
  - Access to vocabulary and messages
Complexity of the Communication Process:

- User of AAC and communication partners (environment): communication model
- Emotive level: emotional resonance, being with people- togetherness
- Cognitive level: exchanging information, level of understanding, ability to express and level of abstraction
• Context: Environment, e.g. home context, school, community
  • How to get these to work together: collaboration
  • Different perspectives between different groups
  • Working with parents and siblings
Objectives for two sessions

* **Session 1:** How do we facilitate interaction in the classroom between teachers and children with little or no speech? What do we want to achieve?

* **Session 2:** Practical application
  * The use of core vocabulary: discussions and videos
  * Low tech as a basis for high tech
  * Hands-on practice
Introduction: What do we want to achieve?

- Communication and meaning
- Process of “making sense” “constructing meaning” or “meaning-making” (Jerome Bruner, 1990)
Shifting from “meaning” to “information” – from constructing meaning to information processing (introduction of computation)

“Information is indifferent with respect to meaning” (Bruner 1990, p. 4)

Information processing can not deal with anything beyond well-defined and arbitrary entries that are in specific relationships which are governed by specific rules and operations.

Bringing the “mind” back into the human sciences (Bruner 1990)

Meaning – quite remote from what is conventionally called information processing.
Communication is about...

- Interacting with someone – emotional resonance (ability to feel with someone)
- Ability to create something in exchanges with someone
- New “nuances” of meaning which develop that didn’t exist before the interaction: different understanding and insights
- Build relationships between people: social closeness
Encoding and decoding: auditory, visual and tactile

Implies a code, a set of unambiguous rules whereby messages can be interpreted

However, receivers interpret messages as blended inputs – the physical triggering sign, but it is **unavoidably shaped by context**
Elusive, difficult to describe.

Symbols co-occur in an environment – auditory, visual and tactile: simultaneous (syntagmatic) and sequential (paradigmatic) contexts.

Relatively easy to describe the symbols – and to infer common meaning, however individual interpretations and contextual influences makes this complex.

Multiple factors impacting communication context:

- **individuals who use AAC**’s ability to use language and relate to others
- **the device**, device characteristics and programming greatly impact on the communication process
* **People who interact with them:** Their ability to relate (emotional resonance) and skill in use of AAC strategies.

  * It is not just about using the system, but also understanding the individual behind the system – development of internal motivation for communication.
Peter, a 16 year old AAC user illustrates this point. He is interacting with his personal assistant (PA) and a consulting therapist who is meeting him for the first time. His synthetic speech generating device overlay displays an array of symbols which include symbols representing “true” and “false”.

* PA (attempting to initiate a conversation): Is your name Peter?
* Peter (activating device): False
* (silence of at least 30 seconds)
* Therapist: Oh, you have a sense of humor!
* Peter (showing a big smile): True
Disconnected/violation of communication rules: Accidental or intentional?

PA: asked his name – he disagrees

T: response

AAC user: smile

Were these symbols (true and false) selected because they were available to the AAC user or were they indeed intentionally selected? Regardless, they represented a unique way of expression in this context, and require that the therapist re-asses and make new interpretations within the conversational context.
What are the characteristics of this interaction?

* **Intention:** wants to communicate,
  * S: does respond
* **Inter-subjectivity:** joint understanding of language and personal meaning
  * S: not conventional
Components:

* **Exchanges:** answer to questions
  * Messages conveyed; initiation/responses
  * S: does take turns

* **Dialogue:** development of new meaning
  * Coherence over some exchanges
  * “New meaning” – new nuances
  * Fleeting moments
What are the main elements of interaction? (Alant et al., 2009)

* **Participation** – overt expression; not necessarily a direct association between structure of utterance and meaning

* **Engagement** – involvement in the process of “making meaning” – emotional resonance.
Basic Principles:

* The length or extent of participation (exchanges) do not predict the level of engagement
* Engagement/involvement indicates the emotional level of communication
* Participation: you need shared symbols to develop common meaning (cognitive)

Engagement and Participation are inter-related.
Level of Communication

* is not equivalent to level of abstraction only – emotional engagement
* it refers to the level of common ground developed between two people (emotive and cognitive)
* development of “new nuances” of meaning between two people
* basic interactive communication skill (BICS) as opposed to cognitive academic language proficiency (CALP) - (Cummins, 1980).
Basic Interactive Communication Skills (Cummins, 1980)

- Natural
- Interpersonal skills (emotive and cognitive)
- Meaning-based
- Context-based
- Link with Cognitive Academic Language Proficiency
Cognitive Academic Language Proficiency (CALP)

- Language proficiency close related to development of literacy skills in first language (L1) and second language (L2).
- Academic related language: strong cognitive component
Video discussion

- Girl, aged 8
- Significant developmental delays
- Mostly unintelligible, she has a device but doesn’t use it.
- Interaction between the child and her dad in the car: They are taking the car to the car shop with the mother following in another car behind.
C: Mommy, hi mommy....me..Na..
F: Nate?
C: hu
F: Nate, uh...is going to be marching
C: Why? No me...
F: You’re going...
C: Why?
F: ‘cause we are all going...
C: PP me...PPme?...
F: Baby Hugh?
Child moves around in seat
C: Mommy...
F: No no, sit in your seat. She is behind us
C: Mommy
F: She’s behind us
C: No me.., my tool
F: Your school
C: Tea?
F: Tea goes to school there…
C: Du…du
F: Drue goes to school there
C: Nate?..
F: No Nate goes to high school
C: Mary?
F: She goes to Pinnacle
C: Daddy?
F: He goes to Pennsylvania
C: hu…
F: hu..
C: Mommy?
F: Mommy.. She goes to all of them
Video
Participation

- Number of exchanges: high
- Functions: Initiation, Commenting, Labeling, Questioning,
- Modes-Clarity: Difficult to understand
- Intention: High
Engagement

* Reciprocity: Some acknowledgement of what the dad says
* Relevance: Responds appropriately – level of emotional relevance, engagement
* Consistency/coherence: Limited focus

Meaning focused on here and now -
Meaning: Integrating participation and engagement

- Associations: linking ideas
- Message: clarity
- Context: relevance & engagement
Associations – linking ideas

* Chaining: *noun-based/labelling*
  * C: My school
  * D: Your school..
  * C: Tea..Drew...Nate...Mary...Daddy

*Move from information to meaning:*

* Not same, other place, more, away, close, bigger – *more generic or core vocabulary*
**C:** My school
**D:** Your school...
**C:** Tea...Drew...Nate...Mary...Daddy

**D:** Your school...close,..not open

**C:** Tea?

**D:** In your school...same school, not same class

**C:** Nate?

**D:** Not same...he is in high school...bigger
Core vocabulary (generic) and fringe (specific)

* Voice output device
* Manual signs, facial expression
* Low tech system
Context

- Relevance: understanding the dynamic aspects of associations
  - Different meanings of words: not same, same, a bit the same
  - Different ways to use the same words
    Same? No same, Same! (functions)
Conclusion

* Information x communication – development of meaning
* Small is beautiful
  * Core & fringe “New nuances”
* Thinking associations: using what students have, to allow us to extend.
* Knowing what they have, to allow us to communicate
* Emotional resonance – “being with”
The Use of Core Vocabulary in Communication
10 words were used across all activities and environments

- Syntactic functions included pronouns (I, you), verbs (want) and demonstratives (this, it)
- Pragmatic and semantic functions included requesting action (want), negation (no), affirmation (yes), and establishing joint attention (that, it)
- A lack of nouns was noted
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96.3%
Why core vocabulary is important
(from Baker, 2010)

* The Statistical Dominance of Core Vocabulary

* In the present study of preschool children, the 50 most frequently occurring words represent approximately 60% of the total sample, while the 100 most frequently occurring words accounted for 73% of the total sample. (Jones Sampling, Lincoln Nebraska, 1987)

* In the present study of preschool children, the 50 most frequently occurring words represent approximately 60% of the total sample, while the 100 most frequently occurring words accounted for 73% of the total sample (Beukelman, Jones & Rowan (1989))
| A | About | After | Again | All | Almost | Already | Also | An | And | Another | Ant | Any | Are | Aren't | Around | As | At | Away | Baby | Candy | Back | Bad | Bad | Ball | Bathro | Om | Be | Bean | Because | Be | Before | Being | Bet | Better | Big | Bird | Birds |
| Bite | Doesn't | Goes | Hum | Maybe | Or | Still | Today | We're | About | Black | Dog | Doing | Gonna | Good | I'm | Messy | Our | Some | Somebody | Together | Well | Aren't | Box | Done | Green | In | Mine | Paint | People | Where | Some | Someone | Trees | What | Some | At | Ball | Cause | Finger | Chair | Fire | Hello | Leaves | Never | Ride | There | Their | Them | They | Want | Whole | We'll | Was | Yet |

**333 Most Frequently Occurring Preschool Words: The Marvin Sampling**

"Vocabulary-Use Patterns in Preschool Children: Effects of Context and Time Sampling" (Baker, 2010)

Christine A. Marvin, David R. Beukelman, Denise Bilyeu
AAC, Vol. 10, Dec., 1994
How Many “A” Words are Picture Producers?

* a
* about
* after
* again
* all
* almost
* already
* also
* an

* and
* another
* ant
* any
* are
* aren’t
* around
* as
* at
How Many “S” Words are Picture Producers? (The Marvin Sampling) (Baker, 2010)

* Said
* Same
* Saw
* Say
* See
* She
* She’s
* Show
* Shut
* Side
* Sit

* So
* Still
* Some
* Somebody
* Someone
* Something
* Sometimes
* Somewhere
* Stop
* Stuff
* Swing
I don’t see it
I do
I saw a butterfly today
They’re scared
They might get hurt
Ooh, what is that?
They’re like that tiny
I can see them
Jump
I saw this book
They crawl

- Wow
- Those are funny
- They look like grapes
- They could
- That was a good story
- Like if you think he runned away
- Grasshopper starts with a “g”
- My favorite color is green
- Make ‘em ride it
- Yeah but . . .

Red = Banajee - 26 core for toddlers
+ Green = Marvin – 333 preschool words
Right here next to me
Did they move seats?
I need to get my pencil
Are you going to sit there?
Why is she going to sit there?
I can’t sit there cause I talk too much
Me and Jennifer are friends.
I have to do this one again
When I’m done I’m gonna go outside

Are you gonna go outside?
I know that one
Where is it?
This one is hard to do cause it’s so messy
I got it
You have three more to do
You want this?
There’s more over there

Red = Banajee - 26 core for toddlers
Green = Marvin – 333 preschool words
Session 2: How do we implement core vocabulary in the classroom?

- Discuss the use of a core vocabulary board: Low tech as a basis for high tech
- Dividing into small groups
- Final Discussion
Introduction

* Pixon Overlay using core vocabulary
* Showing different core vocabulary applications e.g. LAMP, Proloquo2Go, etc
* Video interactions using Pixon boards
Videos for discussion

* Child 1 – videos
* Child 2 – videos
Girl, aged 8

Significant developmental delays

Mostly unintelligible, she has a device but doesn’t use it.

Interaction between the child and her dad in the car: They are taking the car to the car shop with the mother following in another car behind.
Pixon core vocabulary board

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How will you expand on this child’s communication using a core vocabulary board? Use the 50 core vocabulary board as a starting point.

Developing utterances using a core vocabulary communication board

Practicing the use of core vocabulary using low tech communication boards

Sharing ideas: how to grow her vocabulary and utterances

Conclusion
Thank you
ealant@indiana.edu
References

* Baker, B (2010). The Value of Core Vocabulary for Communication and Language Development. *Presentation at Indiana University, Bloomington*, December, 3 & 4