Core vocabulary for students with significant cognitive disabilities: Essential tools, teaching strategies and assessment components

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Disclaimer

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Project CORE Overview

- Develop a comprehensive implementation program for the delivery of a multi-tiered approach to the system for augmenting language (mSAL).

- Refine student communication supports

- Develop implementation tools and training resources for effective use

- Distribute through Project CORE website
Project Goals

• Teach students with significant disabilities and complex communication needs (CCN) to communicate symbolically with a variety of people for a variety of purposes.

• Create and evaluate a multi-tiered system for augmenting language (mSAL) and a universal core vocabulary.

• Develop intervention and assessment tools for teachers, related service providers, and other classroom staff to effectively implement mSAL.
Intended Outcomes

• Improvements in student communication abilities as measured by changes in level on the Communication Matrix (Rowland, 2015) and analysis of language samples collected throughout the school day.

• Increase in practitioner use of mSAL as measured by self-evaluations, observations and fidelity checklists.

• Academic gains for students as measured by pre/post literacy assessments and end of year alternate assessments.

• Build a system with teachers as the primary audience.
Defining the Need

• Among students with significant cognitive disabilities:
  – 9% reported to have no symbolic system
    • 3% exhibit no intentional communication
    • 6% have intentional communication but have no words, signs, or symbols
  – 24% use single words, signs, or symbols for a restricted range of communication purposes
    • 47% of students known to use AAC and speech
    • 80% of students known to use only AAC

DLM First Contact Survey, 2014
Multi-Tiered System for Augmenting Language (mSAL)

- 5 components at each Tier:
  - an AAC system
  - vocabulary and symbols
  - use of natural everyday environments for teaching
  - models of symbol use by partners
  - ongoing resource support and feedback

- Informed by Mary Ann Romski and Rose Sevcik’s System for Augmenting Language (SAL) (1996)
Changes Across mSAL Tiers

• Tier 1
  – Universal core vocabulary

• Tier 2
  – Universal core vocabulary
  – Specialized core vocabulary

• Tier 3
  – Universal core vocabulary
  – Specialized core vocabulary
  – Individualized core vocabulary
Creating an Implementation Program

- Informed by implementation science research (Fixsen, Blase et al.)
- Tools and resources:
  - Readiness assessments and action plan models
  - Interactive and on-demand training and support materials
  - Self-evaluation and observational fidelity checks
  - Data-based decision framework for changing complexity and format of the Universal and Specialized Core.
Role of SLPs

- Demands on SLPs restrict available time for daily classroom instruction.
- Students need meaningful opportunities to learn to use AAC all day, every day.
- Teachers are the key to all day, every day opportunities in the classroom.
- SLPs support teachers in Tier I and then actively lead and direct Tier II & III interventions.
Assessing Communication Abilities

• The Communication Matrix by Dr. Charity Rowland of Oregon Health & Science University (original 1990, revisions in 1996 and 2004)
  - Skills assessment
  - Earliest stages of communication
  - Any form of communication, including pre-symbolic
### Continuum of Communication Abilities

<table>
<thead>
<tr>
<th>Level</th>
<th>Behavior Category</th>
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<tbody>
<tr>
<td>I</td>
<td>Pre-Intentional Behavior</td>
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<tr>
<td>II</td>
<td>Intentional Behavior</td>
</tr>
<tr>
<td>III</td>
<td>Unconventional Communication</td>
</tr>
<tr>
<td>IV</td>
<td>Conventional Communication</td>
</tr>
<tr>
<td>V</td>
<td>Concrete Symbols</td>
</tr>
<tr>
<td>VI</td>
<td>Abstract Symbols</td>
</tr>
<tr>
<td>VII</td>
<td>Language</td>
</tr>
</tbody>
</table>

(Rowland, 2012)
Developing the Universal Core
Vocabulary Decisions: Continuum of Usefulness

Useful for a wide range of purposes in a variety of contexts on numerous topics

Useful for restricted purposes in limited contexts on a specific topic

Core
- dog
- star
- restaurant
- shoes
- park
- circle
- measure
- nibble
- socialize
- forest
- opinion
- protect
- march
- proud

Lots of opportunities to teach throughout the day.

Fringe
- isosceles trapezoid
- Harley
- Pittsburgh Zoo
- meteorite
- banana peppers
- Red Hot Chili Peppers

Opportunities limited to specific activities or specials.
Tier 1: Classroom Wide Universal Core Vocabulary
Core Vocabulary

- Usefulness of core vocabulary backed by numerous studies and many years of research
- Primarily composed of pronouns, verbs, descriptors, and prepositions. Very few nouns.
- Words can be combined to increase semantic and syntactic complexity.
- Trade concreteness for dramatic increase in opportunities to teach and learn.
Universal Core Vocabulary

- Extensive review of the AAC research
- Expressive vocabulary demands in the Common Core State Standards
- Frequency with which students would encounter words in written text
- Prioritized list of words reflects the intersection of the most frequently occurring words in social communication and the most important expressive vocabulary in Common Core State Standards
Universal Core Vocabulary: First 36

<table>
<thead>
<tr>
<th>like</th>
<th>want</th>
<th>get</th>
<th>make</th>
<th>good</th>
<th>more</th>
</tr>
</thead>
<tbody>
<tr>
<td>not</td>
<td>go</td>
<td>look</td>
<td>turn</td>
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<td>put</td>
<td>same</td>
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<td>that</td>
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<td>some</td>
</tr>
<tr>
<td>it</td>
<td>here</td>
<td>in</td>
<td>on</td>
<td>can</td>
<td>finished</td>
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<td>where</td>
<td>what</td>
<td>why</td>
<td>who</td>
<td>when</td>
<td>stop</td>
</tr>
</tbody>
</table>
Universal Core Formats

- 36 location boards
  - Individual use
  - Classroom use
- 4 location x 9 pages books
  - Individual Use
    - 4 square
    - 4 in-line
  - Classroom Use
- Tactual symbols
Universal Core Design

- Consistent relative positions aimed at supporting effective teaching and student transitions from 4 to 36.
Natural Everyday Environments for Teaching
Natural Everyday Environments for Teaching

- Students do not require continuous prompting and structured practice in order to learn language (Romski & Sevcik, 2006)
- Students do require many meaningful opportunities to use symbolic language in natural settings (i.e., embedded in the events of the day).
- Students require ongoing models of the symbolic language system we are asking them to use.
- Repetition with variety is key!
Natural Everyday Environments for Teaching (cont.)

- Teach the words *and* the symbols
- Students should be encouraged but not required to use symbols to communicate.
- All communication behaviors should be acknowledged, meaning should be attributed, and partners should respond appropriately.
Teach the Word and the Symbol

- What word does this symbol represent?
- What are some meanings of this word?
- What are some interesting contexts for teaching it?
Modeling

• ALWAYS have the universal core vocabulary available.
• Speak in a natural way as you consider the words you can model.
• Point to the symbol representations while saying the 1 or 2 most relevant words in your sentence.
• Repeat and expand using your speech to build a meaningful context.
• Avoid saying, “show me…” and “point to…”
Our Development Process: Years 1-2

- Work collaboratively with partner schools to fully develop mSAL at Tier 1.
- Work with school professionals (implementation training, resources and coaching support).
- Provide all students who are using intentional communication with access to mSAL Tier 1 communication instruction (and work to determine how to build intentional communication for other students).
- Refine mSAL implementation program and universal core communication vocabulary and system design.
Identifying Universal Core Teaching Opportunities

- Observation of/reflection on current instructional practices.
- Observation of/reflection on naturally occurring opportunities to teach universal core vocabulary.
- Use of above in teacher training and lesson examples.
Using Core: Arts/Crafts/Dramatic Play Example

• Potential Communication & Interaction
  – communicate about what you are doing
  – learn about and practice different communication functions:
    • Turn taking
    • Sharing
    • Social roles
    • Opinions/perspective
    • Negotiation
Examples of the Core

• As you introduce the art project, adult models:
  – Look!
  – I opened the paint.
  – You can paint.
  – I like the blue.

• In response to the student, adult attributes meaning, repeats and expands:
  – Like. You like it?
  – Open. Open it.
Examples of the Core

• When student reaches for an item, adult models:
  – *You want* more.

• As the activity is ending, adult models:
  – *We are* finished.
  – *Look* what we made! I *like* it.
  – It’s time to *stop.*
Using Core: High Interest Activities Example

- Potential Communication & Interaction
  - Preferences & Choices
  - Persuasion
  - Predictions
  - Multiple-turn interactions/negotiations

- Opportunity for sustained attention and repeated attention to a topic
Examples of the Core

• As you share your interests with students, adult models:
  – I like Kentucky. I do not like Duke.
  – Do you like the same?
  – Do you like different?
  – Who likes Duke?
  – Who likes Kentucky?
Examples of the Core

• In response to the student, adult points while asking:
  – Do you *want* Duke to win? *Want/Not*?
• In response to the student, adult attributes meaning, repeats and expands:
  – *Stop!* - Kentucky will *stop* Duke?
Using Core: Meal Time Example

• Potential Communication & Interaction
  – Preferences & Choices
  – learn about and practice different communication functions:
    • Turn taking
    • Social roles
    • Opinions/perspective
Examples of the Core

• Comment to students and other teachers using core, adult models:
  – *I like* muffins. I think *you like* muffins too.
  – I will *help* you. I will *help open* your milk.
  – *Look* “another student” *likes* muffins too.

• After student requests an item and begins to eat it, adult models:
  – *Do you like it? I like that too.*
Examples of the Core

• Student requests using PECS, adult responds and then models:
  – *You want more. Not me!*

• During cleanup, adult models:
  – *Help.*
  – *Put it in* the trash.
  – *Finished.*
Wrap-up

• We believe:
  – teachers can learn to effectively implement core vocabulary AAC systems with students with significant disabilities and CCN;
  
  – classroom-wide universal core vocabulary instruction holds promise for improving student abilities to communicate with a range of people for a range of purposes on a variety of topics; and
  
  – SLPs will be empowered to better address the language and communication needs of students with significant disabilities and CCN if mSAL is fully implemented.
Additional Resources to Teach Core

- Dynamic Learning Maps PD Modules
  - [http://dlmpd.com/](http://dlmpd.com/)
  - Facilitated and Self-directed modules
  - Virtual Community of Practice with a growing list of Core Vocabulary Resources
- PrAACtical AAC blog:
  - [http://prAACticalAAC.org](http://prAACticalAAC.org)
- Commercial Resources
  - Core vocabulary books (DynaVox & PRC)
- CLDS website for Project Core Resources
  - [http://www.med.unc.edu/ahs/clds](http://www.med.unc.edu/ahs/clds)
Thank you!

The Center for Literacy and Disability Studies

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