

AAC-34
ATiA 2019

AAC Strand Spotlight

AAC Implementation: Issues, Challenges, & Opportunities

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Our AAC Panel

Facilitator: Carole Zangari

- Christopher Bugaj, Specialized Instructional Facilitator, Loudoun County Public Schools
- Vicki Clarke, SLP/CEO, Dynamic Therapy Associates, Inc.
- Caroline Musselwhite, Literacy & AAC Specialist
- Gail VanTatenhove, SLP/CEO, AACell, Inc.

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Learning Objectives

- Learning Objective #1: Identify 2 current issues and/or trends related to AAC implementation
- Learning Objective #2: Describe at least 3 AAC implementation challenges
- Learning Objective #3: Discuss at least 3 solution strategies to address AAC implementation challenges

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Responding to Implementation Challenges

- Chris
 - Transitions & Turnovers: Killers of Language Learning Progression
 - Keeping Up With The Training Demand
- Vicki
 - Addressing Opportunity Barriers to Participation
 - Facilitator Attitude, Knowledge, & Skill Barriers

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Responding to Implementation Challenges

- Caroline
 - Facilitating Generalization
 - Age-Respectful and Engaging Materials/Activities for Adolescents & Teens
- Gail
 - Providing Person-Specific AAC Design in an App/MAP Happy World
 - The Aging of AAC Users with Intellectual/Developmental Disabilities

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Chris Bugaj

attipscast@gmail.com

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Get the entire presentation



<http://bit.ly/aacspotlightcb>

Speaker Disclosures

Chris co-hosts the [Talking With Tech](#) podcast which features discussions about AAC. He receives revenue from sponsors of the podcast & from courses at [Xceptionaled.com](#)

Christopher Bugaj,
MA CCC-SLP
[@attipscast](#)
attipscast@gmail.com
ChrisBugaj.com



Chris receives royalties for the sale of the book [The New Assistive Tech: Make Learning Awesome For All!](#) and other authored works.

You can see all of Chris's disclosures for ATiA (and any other endeavor) at <http://bit.ly/cbdisclosures>.

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**Challenge 1 - Transitions & Turnovers:
Killers of Language Learning
Progression**

**Challenge 2 - Keeping Up With The
Training Demand**

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Challenge

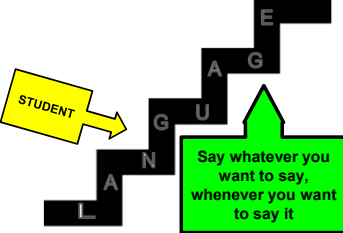
**Transitions & Turnovers Kill Language
Learning Progression**

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Language development can be represented as a staircase. It is a progression.

Goal: Help students get to the top of the staircase.

Educators (including family members) who know what they are doing can help get the student to the top of the staircase.



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Turnovers

Attrition rate for special education teachers are very high, averaging approximately 13% per year. (McLeskey, Tyler, & Flippin, 2004)
<http://bit.ly/setturnover>




How many special educators do you know who are no longer teaching in special education?

Let's list some reasons why? Go!

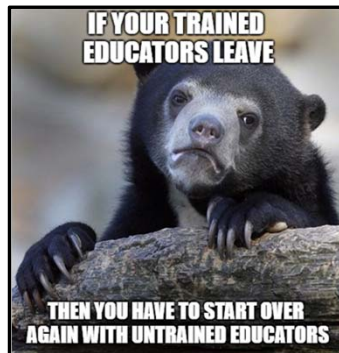
<http://bit.ly/setturnover>

ACTION ITEM!

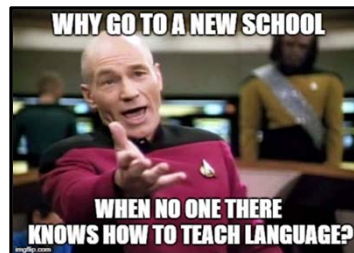


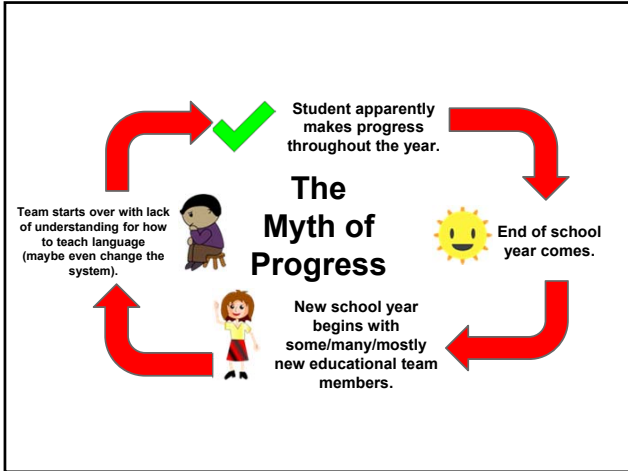
Go back to your schools and find out the turnover rate for special educators in your district. Make it a goal to decrease this rate.

Why this matters



Transitions







Myth of Progress

- Measuring progress one year at a time.
- Given no other choice, students make gains on any AAC system but, in the end, that approach rarely results in students having learned how to say whatever they want to say, whenever they want to say it.


The Story of Three Different Boys



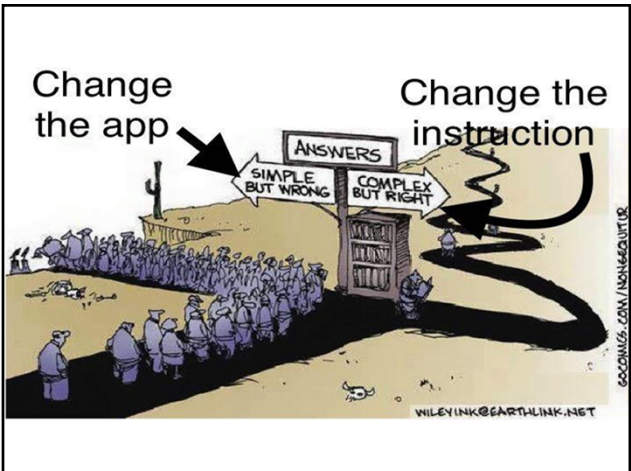
LAMP:WFL for three years, with three different teachers and three different SLPs. Transitioned to MS where Proloquo2go was implemented.



LAMP:WFL for three years, with three different teachers and three different SLPs. ES wanted to change the system. AT person talked them out of it. Transitioned to another ES with a teacher who attempts to embed core ALL DAY LONG.



LAMP:WFL for three years, with three different teachers and three different SLPs. Transitioned to MS where PECS was implemented.



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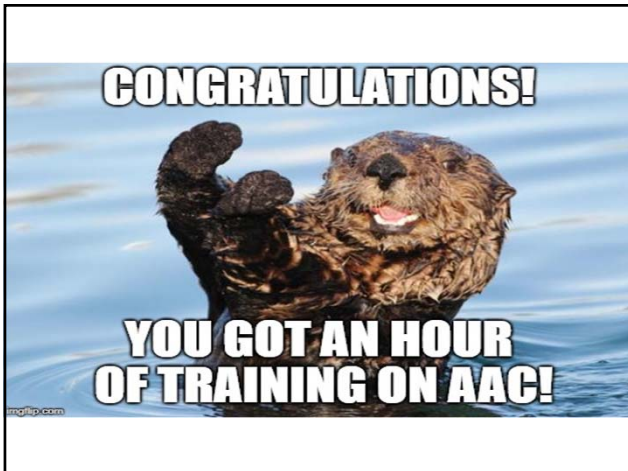

Challenge

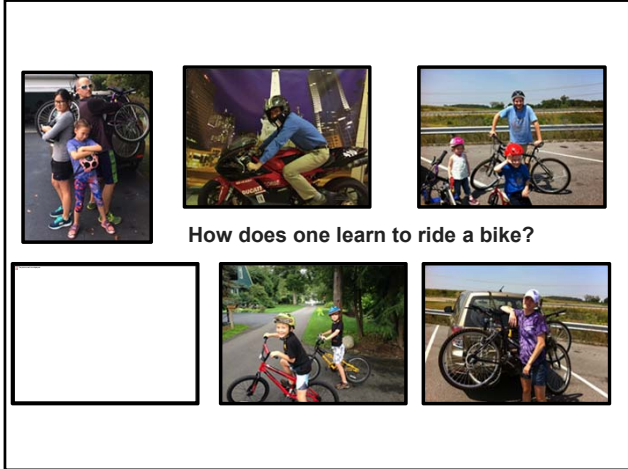
Keeping Up With The Training Demand

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Houston, we have a problem.

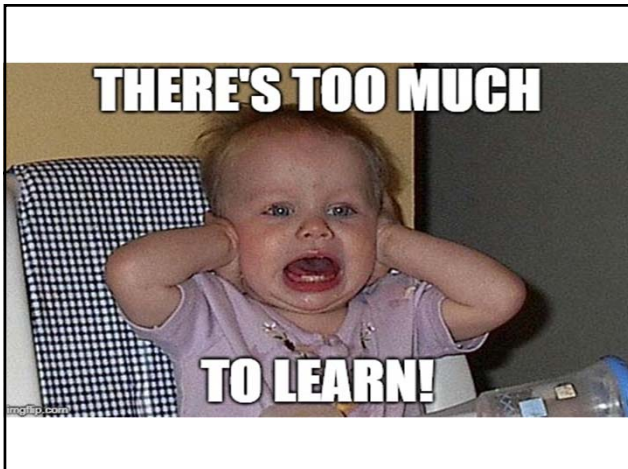
Should the focus of intervention be on the user or the communication partner?





Barriers (Binger and Kent-Walsh)

- Focusing on what is “wrong” with the partner instead of improving client behaviors.
- Trying to change too many partner behaviors at once.
- Trying to change too many client behaviors at once.
- Trying to change client and/or partner behaviors in too many settings or situations at once.
- Failing to link changes in partner behaviors with identifiable, measurable changes in the client.



Examples of techniques/skills

- [Least to Most Prompting](#)
- [Read, Ask, Answer, Prompt](#)
- [Predictive Chart Writing](#)
- [Partner Assisted Scanning](#)
- [Song Boards](#)
- Open Ended Questioning

What else?

S'MORRES - [Jill Senner](#) & [Matt Baud](#)

S - Slow Rate

<http://bit.ly/naacsморres>

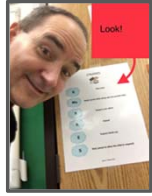
Mo - Model

R - Respect & Reflect

R - Repeat

E - Expand

S - Stop (Provide Wait Time)



Listen! <http://bit.ly/twtsennerbaud>

MASTER PAL - [Tabi Jones-Wohleber](#)

M - Motivate

A - Accept Multiple Modalities

S - Statements > Questions

T - Time (Wait)

E - Engage Naturally

R - Response Not Required

P - Presume Potential

A - Appropriate

Prompting

L - Let the Child Lead

Listen! <http://bit.ly/twttabi>



Potential Solutions

1. Measure language growth over time using a shared protocol (not just annual goals).
1. Shared portfolio to collect evidence of progress (like a Team Drive in Google, for example)

Brown's 14

Use Brown's Grammatical Morphemes to target specific linguistic structures. Construct activities to focus on one particular type of morpheme (like *Irregular Past Tense Verbs*) and then, in the future, target the next morpheme based on the order of typical age of mastery (like *Possessives*).

Morpheme	Example	Approximate Age of Mastery (in Months)
Present Progressive -ing	Mommy driving	19-28
In	Ball in cup	27-30
On	Doggie on sofa	27-33
Regular plural -s	Kitties eat my ice cream.	27-33
Irregular past	Came, fell, broke, sat, went	25-46
Possessive's	Mommy's balloon broke	26-40
Uncontractible copula (Verb to be as main verb)	He is. (Response to "Who is sick?")	28-46
Articles	I see a kitty.	28-46
Regular past -ed	Mommy pulled the wagon	26-48
Regular third person -s	Kathy hits	28-50
Irregular third person	Does, has	28-50
Uncontractible auxiliary	He is.	29-48
Contractible copula	Man's big	29-49
Contractible auxiliary	Daddy's eating	30-50

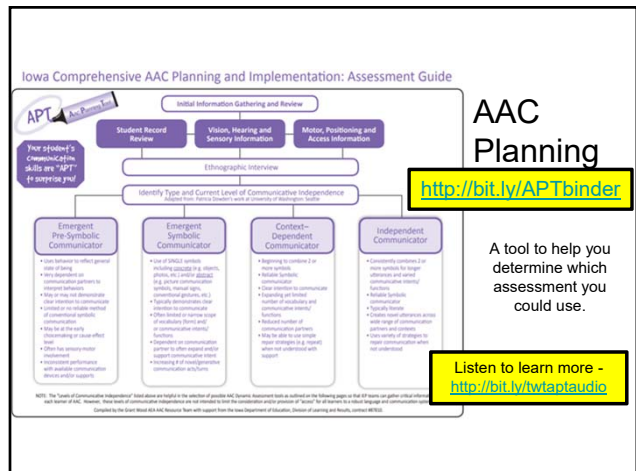
Mean Length of Utterance (MLU)

STAGE	MLU	Approximate Age
I	1.0 – 2.0	12-26 mos
II	2.0 – 2.5	27-30 mos
III	2.5 – 3.0	31-34 mos
IV	3.0 – 3.75	35-40 mos
V	3.75 – 4.5	41-46 mos
V+	4.5+	47+ mos

Brown (1973)

Just because a student is using a device, doesn't mean you should forget everything you know about teaching language. Instead, rely on that knowledge and experience. MLU is one way to measure language.

How To: <http://bit.ly/howtomlu>



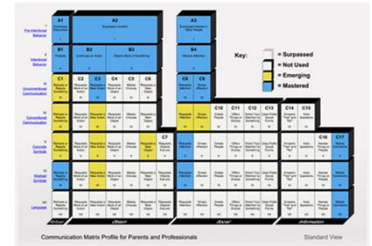
Dynamic AAC Goals Grid 2 (DAGG-2)

ABILITY LEVEL SUMMARY

In the chart below, mark the individual's Ability Level for each skill area to provide you with a "big picture" view.

SKILLS	ABILITY LEVEL					Notes:
	Emergent	Emergent Transitional	Context-Dependent	Transitional Independent	Independent	
Understanding	🌟	🌟	🌟	🌟	🌟	
Expression	🌟	🌟	🌟	🌟	🌟	
Social Interaction	🌟	🌟	🌟	🌟	🌟	
Literacy Skills	🌟	🌟	🌟	🌟	🌟	
Other	🌟	🌟	🌟	🌟	🌟	http://bit.ly/dagg2aac

Communication Matrix



<https://communicationmatrix.org>

Use the Continuum Of Language Expression to help determine a student's current level of performance regarding language development.

The Interactive LCPS Continuum Of Language Expression

INSTRUCTIONS: Make a copy of this template for each student (File: Make a Copy). Place a "1" in the appropriate column to indicate how often a student demonstrates the target.

REMEMBER: Unless you are logged in to Google using an LCPS GAFE account, do not use identifying student information!

Student Identifier: _____ Additional Notes: _____ COLE Score:

Date Completed: _____

Your Name(s): _____

TARGETS (The intent is that the student has demonstrated the target independently unless otherwise indicated)

	Occasionally	Usually	Always	Evidence/Documentation/Notes:
STAGE 1				
Cries when uncomfortable.	0	1	0	
Smiles, coos, giggles, or otherwise shows enjoyment when attention is given.	1	0	0	
Gazes at a person or visual stimulation for one second.				
Shows a physical response to noise (turns head, stops moving, jumps, etc.).				

Interactive Google Sheets Version:
<http://bit.ly/colegooglesheets>

Pretty, Pretty Piktochart Version:
<http://bit.ly/lcpscolepiktochart>

More Potential Solutions

3. Train pre-service teachers.
4. Select one salient technique or skill to be implemented in one well-defined context.
5. Practice with the communication partners to help them learn the technique.
6. Start small. After you achieve initial success, expand.

How could we measure this?



2005 - [ImPAACT Program](#) developed by Kent-Walsh and McNaughton

Employs five main instructional techniques

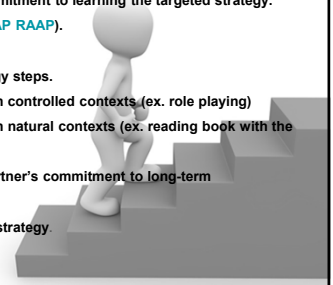
- video review (of others doing the technique)
- modeling (live demonstration of technique)
- role play (controlled practice with peers)
- verbal rehearsal (naming the mnemonic)
- coached practice (faded constructive feedback)

Ensuing studies using some version of this program seem to show favorable results (increase in turn-taking and multi-symbol message rates).

Improving Partner Applications of Augmentative Communication Techniques

The 8 Steps of the ImPAACT Program

1. Pretest and solicit the partner's commitment to learning the targeted strategy.
2. Describe the strategy (ex. [RAAP RAAP RAAP](#)).
3. Demonstrate use of the strategy.
4. Provide verbal practice of the strategy steps.
5. Practice implementing the strategy in controlled contexts (ex. role playing)
6. Practice implementing the strategy in natural contexts (ex. reading book with the children).
7. Complete posttest and solicit the partner's commitment to long-term implementation of the strategy.
8. Demonstrate generalized use of the strategy.



Even More Solutions

7. Focus training on parents and family members. They don't leave as often as other educators.

8. Online modules

- Google Classroom
- [XceptionalEd.com](#)

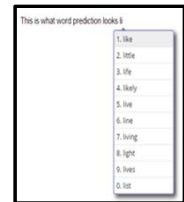


And Even More Solutions

9. Build the school culture to get EVERYONE involved in using AAC. Make learning language using AAC a part of everything for every student!



What do these all have in common?



How do we teach learners language who require AAC in inclusive settings?

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Use the AAC system to teach language to everyone!



@attipscast



The best kept secret in education is...

Accommodations can drive **DESIGN** for the masses

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What are some ways to build school culture? Go!

- 1. Project- based learning

And Then There Is This Solution...

10. Use Mass Feature Matching to move AAC from Tier 3 only tool to become a Tier 1 tool by adopting a Specific Language System First approach, and then customizing per individual from there.

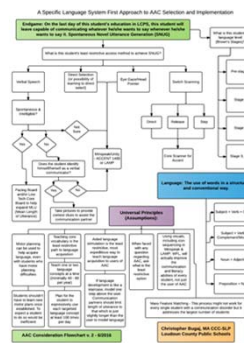


Mass Feature Matching
Examine the needs of most students and find tools and strategies to support everyone.



Specific Language System First Approach

A model for how to approach AAC selection and implementation



<http://bit.ly/prcspecificlanguagesystemchart>

BUILD A CULTURE

Adopt a district-wide “SLS-First” approach using Mass

Feature Matching

- SLS = Specific Language System, e.g. Minspeak, ChatPower, LAMP:WFL, Proloquo2Go etc.
- Most students have same system.
- Easier for Aided Language Stimulation.
- Turnover & transition concerns are minimized.
- During interview ask about familiarity with the system.
- Training becomes easier & sharing materials becomes easier.
- Implement a Language - Based Curriculum.
- ALL students benefit (not just users of AAC) - Everyone becomes better readers

Make Decisions with Language Development in Mind



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Vicki Clarke
vicki@mydynamictherapy.com

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Opportunity Barriers for AAC Users

Vicki Clarke, MS CCC-SLP
Dynamic Therapy Associates, Inc
DTA Schools

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Opportunity Barriers to Participation

The flowchart illustrates the Participation Model for augmentative and alternative communication (AAC). It starts with 'Identify participation preferences and communication needs', leading to 'Identify barriers'. This branches into 'Access opportunity barriers' (Policy, Practice, Facilitator skill, Cognitive knowledge, Attitude) and 'Access access barriers' (Assessment/implementation). 'Access opportunity barriers' further branches into 'Assess barriers to participation' (Physical, Sensory, Environmental, Social, Cultural, Attitudinal) and 'Assess barriers to access' (Assessment/implementation, Educational/health care systems, Communication mode, Communication profile, Cognitive profile, Motor, Organizational, Financial, Behavioral, Attitudinal). The process then moves to 'Plan and implement interventions for today and tomorrow', 'Provide instruction to partners who use AAC & facilitators', and finally 'Evaluate intervention effectiveness in person participation?'. The model is attributed to Beukelman, David and Pat Mirenda, Augmentative & Alternative Communication, (2013) Pg. 109.

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Facilitator Attitude, Knowledge & Skill Barriers

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What We Hear





- They just need someone to love them.
- Aren't they cute.
- They're lazy.
- This is too hard...for them.
- We don't have time.
- They can already talk!

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Teaching Adults

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**Leaders:
Ideas &
Materials**

-  Jennifer Kent-Walsh & David Mcnaughton
-  Matthew Baud and Jill Senner
-  Tabi Jones Wohleber
-  Project Core

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Large Group Instruction

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Positive Practice

Speaking in Symbols playing games, coloring, reading magazines and Flip Grid!

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Everything's Easier With Friends!

Project Based Teamwork

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Modeling Good Practices

Model Classrooms

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Readily Available Materials




- Make & Takes
- Free Website Resources
- Targeted Resources

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Targeted Training Materials

- Project Core Modules
- MODEL as a MASTER PAL
- DTA Schools Materials



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Genuine, Positive Attention Goes a Long Way!



SOCIAL MEDIA



AAC SHARE OUT SESSIONS




ADMINISTRATIVE FEEDBACK

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Normalize Instruction & Goals



Classroom Communication Goals

wants & needs socialization

academic participation 5 express opinions

language development

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7
1

Speaker Information



- Vicki Clarke, MS CCC-SLP
- Dynamic Therapy Associates, DTA Schools
- vicki@mydynamictherapy.com
- www.mydynamictherapy.com
- @AACchicks



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Caroline Musselwhite

carolinemusselwhite1@me.com

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Speaker Disclosure: Dr. Caroline Ramsey Musselwhite

- **Caroline Musselwhite** has worked with a number of companies providing free and paid consulting. This includes: Don Johnston, AbleNet, Attainment, TobiiDynavox, Prentke-Romich, and Panther Technology.
- I also have a company, www.aacintervention.com through which I provide workshops and classroom consulting, and sell books and software.
- I am not showing any of my products during this session.



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Challenge 1: Generalization (or lack thereof!)



Build In Generalization: RPM – GO!

R = Rehearse

P = Practice

M = Model

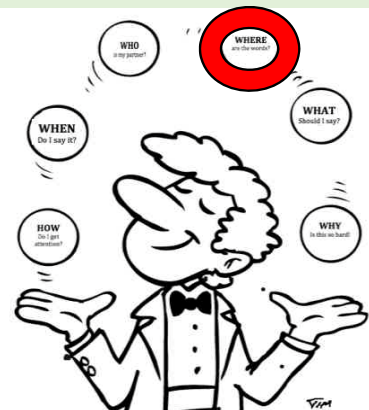
GO! = Use it with others



REHEARSE: All About the **Where**

Conversation
Juggler:

Focus Only On
WHERE
Are the
Words On
My System



REHEARSE: Key Features

- KISS!! (Keep It Simple, Silly)
- Motivating (apps help!)
- Goal = Beginning motor automaticity

Important: Must move BEYOND Rehearse in a single session



REHEARSE: Compliments/Comments 1

Compliments 1 - Tic Tac Talk

Great	Nice	Cool
Pretty	FREE	Like
Excellent	Good	

Comments 1 - Tic Tac Talk

Great!	Cool!	Yeah!
Crazy!	FREE	Sorry!
Oops!	Fun.	Okay.



REHEARSE: Compliments / Comments 2

Compliments 1 - Tic Tac Talk

You look great!	Nice	Cool
You look pretty.	FREE	Great
So pretty!	Like that!	Love it!

That is so cool!	This is funny.	I really like that!
That is very bad.	FREE	So sorry.
Oh no! That is bad.	Very funny!	I don't like that.



Random Name Selector

REHEARSE: App It Up!



Played 'Starters'

- I pulled up a word on the iPad from the set of target words

(Note – you could just pull the words out of a hat!)



PRACTICE: All About the WHAT

Conversation Juggler:

Add Focus On WHAT You Want To Say

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PRACTICE: Key Features

- Student gets to **use** words from rehearsal
- **BUT**, they aren't talking to a real person
- Reduces stress
- Goal = Growing motor automaticity while thinking about what to say

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PRACTICE: App It Up

HOMEWORK:
Try It:
Compliments at 1 word, 2 word, 3 word levels

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PRACTICE: Response To . . .

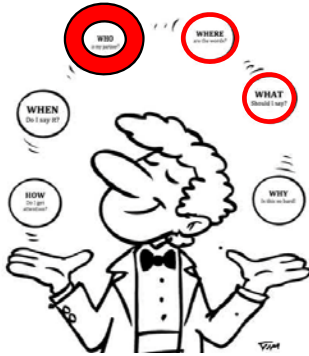
Magazines

Books

Videos

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MODEL: All About the WHO



Conversation Juggler:

Add Focus On WHO You Want To Talk To

ATIA 2

MODEL: Key Features

- Real conversations, but in 'safe' settings (therapy, classroom, with Communication Circle, with family, etc.)
- Can include Role Play
- Partners should model their parts
- Goal = Growing motor automaticity while thinking about what to say and WHO to say it to

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Pinterest Visual Quotes

Caroline Musselwhite

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MODEL: Real Compliments

Around The Table

Me: Leila, you look nice. I like your scarf.

Leila: Alexa, that is a pretty hat.

Alexa: Kennedy, your shirt is cool.

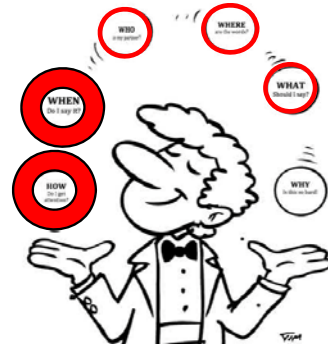
NOTE: After 2 – 3 models, target student gets EVERY OTHER TURN!!!

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MODEL: Around The Table



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Conversation Juggler:

Add Focus On
WHEN
To Talk and
HOW
To Get
Attention

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GO! Key Features

- Real conversations, real world
- Facilitators should be mostly out of sight
- Partners should speak naturally to person who uses AAC
- Goal = Putting it all together, and with less familiar partners

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GO!

Data Form

Name	Compliment
Adina	I like your hat. It is cool.

Questions Interview			
(Names)	Who do you like?	Where do you go?	What do you do?
Miss Caroline	all of you	Canada	hike
Kennedy	Kea	park	play
Adina	Layla	Swim	iPad
Layla	Adina	Swim	slap bio
Lean	Kea	park	Play

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CHALLENGE 2: Age-Respectful and Engaging Materials / Activities for Adolescents & Teens



are you childish?

yes

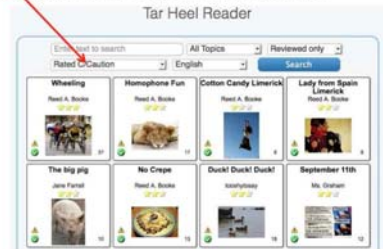
no



Some Great Authors

• C/Caution Books from Tarheel Reader

- Jane Farrall
- Reed A Booke
- Deanna Wagner
- Caroline Musselwhite
- DLM
- MaureenD



Angelman Communication Series Books: On Tarheel Reader

Focus on core language!



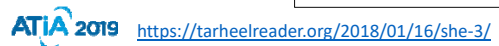
She Needs Book

She Needs A Vacation!

Caroline Musselwhite & Ev



She wants a vacation.



She has money.

She must shop.

She needs a little shirt.

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She wishes for a skinny swimsu

She hopes to get magical pants

She needs to stop spending.

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Did she have fun?

She did!

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Not good

You are embarrassing me!

First, I dropped some french fries.

I'm sorry

Oh my gosh!

The dog will get them

It was not pretty!

Cute

Damn

Hello Cutie Pic

Nice to meet you

Then, a pretty girl come in.

Celebrate Success! Make a Poster!

Pic Collage

Uh-oh, I think wheeling peed.

Watch out for the wheeling menace.


Wheeling
Read A Booke
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Wheeling
Tarheel Reader

- Start reading and pause for comments
- Adults jumped in <http://aacgirls.blogspot.com/2016/09/book-reaction-wheeling-by-reed-booke.html>

Wordless Videos

- Way too fun!!
- Watch then pause
 - Tip: Slow down the video in YouTube
 - Tip: Use *ClipGrab* (FREE) to download apps
- Expectant pause in case students have something to say
- Model things to say
- Great videos
 - Mariza the donkey
 - Simon's Cat (scores of videos!)
 - Funny cat / dog, etc



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Samples Across Time

<p>2/5/18</p> <p>STORY RETELLING</p> <p>He puts on his top hat; he didn't see his shadow; spring will come early.</p> <p>He takes a bow; he goes back in his little home</p> <p>We use our shadows to tell people when spring is coming</p> <p>I don't see why not</p>	<p><i>FarFaria</i></p> <p><i>Phil's Big Day</i></p>
<p>3/13/17</p> <p>READING</p> <ul style="list-style-type: none"> - story retelling Compare horse & human babies - THEY ARE BIG; THEY ARE LITTLE; THEY CAN'T STAND; THEY NEED MOM; THEY LIKE TO DRINK; THEY ARE SO CUTE 	<p><i>Horse Babies</i></p>

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Story Retelling – Core Word Fun

Just the Big Ideas, Ma'am

WHAT: Story retelling is a powerful strategy to support language and literacy. This tip describes how a smart partner can use a student's AAC device to summarize story parts.

WHY RETELL STORIES USING CORE LANGUAGE: This approach can help students:

- Learn the big ideas in a passage
- Observe how simple vocabulary, including primarily core language, can be used for story retelling
- See consistent models of core language, helping them learn where to find key words

HOW TO RETELL STORIES USING CORE LANGUAGE:

- 1) Think "What is the big idea in this passage?"
- 2) Summarize that big idea using short sentences, and kid-friendly language
- 3) Remember to use mostly core – this will be quicker, and will support core learning
- 4) Speak all words, but model only core
- 5) Sample for the passage to the right

bull shark

They both have torpedo-shaped bodies to cut through the water. They have fins and flippers in similar places to help them swim quickly.

Sharks & Dolphins: A Compare-Contrast Book by Karin Dantz: Ige Books

THEY GO FAST IN WATER

THEY EAT AT NIGHT

National Geographic Readers: Bat

Dr. Caroline Ransay Mowbray Tip # 5, 2017 www.aacsworld.com

There's A Tip for That!!

Story Retelling With Core



Gail Van Tatenhove
gvantatenhove@icloud.com


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Speaker Disclosures

Gail Van Tatenhove has NO Financial or Non-Financial Relationships to disclose.



Gail M. Van Tatenhove, PA, MS, CCC-SLP;
 AACell, Inc. & Semantic Compaction Systems



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Gail's Current Thinking on a couple of Best Practices in Implementing AAC Tools and Strategies

Challenge 1: Providing Person-Specific AAC Design in an APP/MAP Happy World


Challenge 2: The Aging of AAC Users with Intellectual/Developmental Disabilities



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Providing Person-Specific AAC Design in an APP/MAP Happy World

"I've tried several programs with my student and none of them seem to be a good fit. What program do you recommend?"



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App/MAP Pre-Stored Vocabulary Program Options

- APP – **APP**lications available in mobile technology platforms and SGDs that use single meaning pictures organized across multiple pages (e.g., Proloquo2Go, Communicator, Picture Word Power, Touch Chat, etc.)
- MAP – **M**inspeak **A**pplication **P**rograms available in mobile technology and SGDs that use multiple-meaning icon sequences (e.g., Unity®, LAMP® Words for Life, Core Scanner®, Unidad®)



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Why is this a concern for me in 2019?

- Customization is **ESSENTIAL** for highly complex people (access issues, vision issues, late language learners)
- Seeing **VERY LITTLE** customization of APPs or MAPs for most people (who really need it)
 - Don't know that it is permissible
 - Don't know how
- Customization that is happening is
 - Minimal (a couple of words, gender/ethnicity for 1st person pronouns)
 - Not monitored by a system manager, resulting in non-rule driven changes that create chaos in the APP/MAP



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A History of Early SGDs

- Most SGDs of the past **DID NOT** come with pre-stored vocabulary programs (Exceptions: Handivoice 110, Handivoice 120)
- In mid 1980s, Prentke Romich Company introduced Minspeak Application Programs
 - Words Strategy®
 - Interaction, Education, and Play®
 - Power 'N Play®
- Purpose
 - To address the difficulty/expertise required to develop a well organized, custom designed AAC system
- Released to mixed reactions from the professional community



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“Customization Camp”

- Concerns
 - “You can't pre-select words for someone because you need to design systems that are as unique as the people using them.”
 - “It takes a while to select the vocabulary, find appropriate pictures, create an organization plan, and program in all the words, but you get a system that's a match for the person.”
- Best Practices of the Day
 - Do a vocabulary inventory
 - Select or draw pictures unique for the person
 - Create a custom designed organizational system
 - Program the vocabulary gradually as the person needs and learns it



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“Language Camp” Response

- “Yes, you can pre-select words for someone because
 - there is plenty of evidence about the most frequently used words used by speaking people.”
 - providing those words in a well designed, pre-stored program provides the opportunity for more immediate intervention.”
- Best Practices of the Day
 - Provide a robust set of pre-stored core vocabulary words
 - Provide pre-stored extended vocabulary for a range of noun categories
 - Create an architecture that supports easy personalization and customization
 - Focus on implementation instead of customization



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Strategy 1: Identify a System Manager Who...

Understands the issues (physical/visual/language) that are challenging in use of an APP/MAP

Has the ability and boldness to think “out of the box” when necessary

Defines the “rules” and architecture of the system in order to renovate the design without causing harm

Does all the initial system re-design

Does or oversees any on-going changes to the AAC system



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Case Example: JB

- 19 year old male with significant physical challenges, but good cognitive/receptive language
- Not successful accessing a SGD (history of multiple devices and access methods tried)
- Using a PODD book with Partner Assisted Scanning – most communication is 1 word
- Exposed to Unity®60, but wants the language of Unity®144
- Recommendation: Go back to scanning, but with deep customizations, building on familiarity with Unity®60 and adding features to better accommodate scanning



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Strategy 2: Justify Solutions to Challenges

- More keys (144) means shorter icon sequences
 - Shorter icon sequences means less time spent scanning
- More keys (144) means more words in activity rows and on pages
 - More words means less navigations to deeper levels of rows and pages (with less time scanning)
- More keys (144) means no more need for combined icons
 - Cleans up the “semantic network” coded by each icon, simplifying the vocabulary coding
- Auditory scanning means less need to focus vision with motor movements (increasing accuracy with switch and language produced)



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If and When MAJOR changes are needed

- In an ideal world, do those changes before introducing the APP/MAP
- In the real world, (after you've already been working on a program and are invested in it)
 - collect data on why the changes are needed
 - get consensus from everyone to try the changes
 - bite the bullet and do it
 - document outcomes
 - make more changes (hopefully only minor) as needed

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"Original" Unity®60 Legacy



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JB's Main Unity®60 Display



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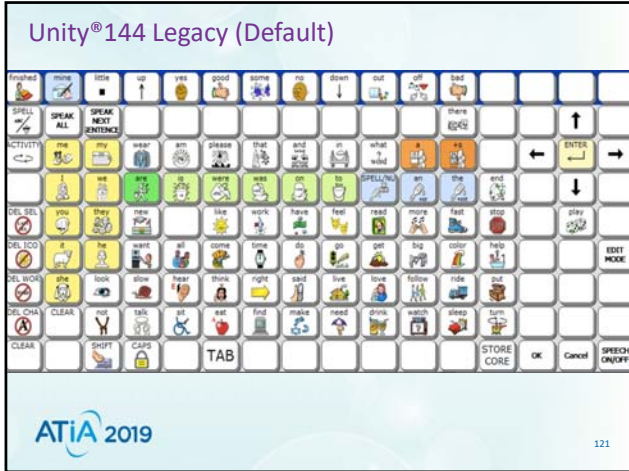
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JB's Main Unity®144 Display



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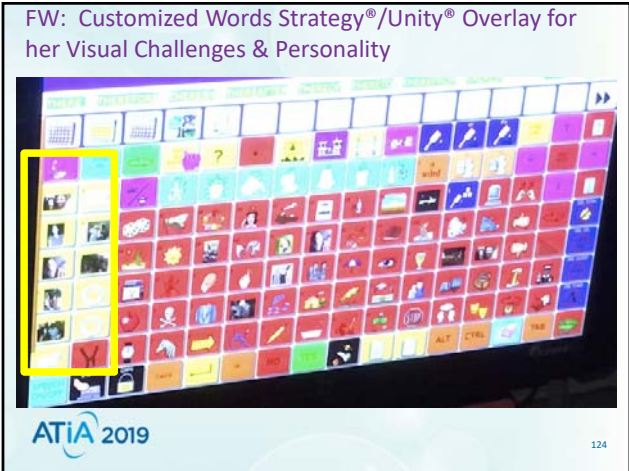


JB's Reaction to the Major Change

- After 1 hour using it, resisted ANY suggestion to go back to his former access method (eye gaze) and vocabulary configuration (Unity®60)
- Pride in his demonstrate of his knowledge of the Unity® codes he knew (but couldn't access reliably before)
- Increased expressive language output by 3 fold (MLU-M of 1.38 to MLU-M of 4.92)
- Adamant about less communication partner supports (e.g., "mom" "quiet" "I can" "myself" "talk")
- Requested device mounts for ALL seating options
- Increased time in independent exploration and learning

Strategy 3: Implement Simple Customizations

- Simple Customization = maintain the arrangement and architecture of the program, primarily adjusting vocabulary, symbols/icons, and auditory prompts
- Vocabulary
 - Add key people, places, and things (e.g., family names, favorite community places, favorite things)
- Symbols/Icons
 - Add the picture of the person/name of person
 - Adjust any pictures for gender/cultural background
 - Adjust color code (change, add more)
- Prompts
 - Customize auditory prompts, as needed



FW: Customized Spelling Overlay for her Visual Challenges



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Strategy 4: Do Deeper Customizations

- Icons/Symbols
 - More appropriate for CVI
- Icon Arrangements
 - Move symbols around
 - Add blank spaces (checkerboard, etc.)
- Scanning: Access “Escapes” in each row
- Vocabulary Codes/Navigational Paths
 - Order of Icon Sequence for Closed Class Words (Unity)
 - Adding Words in a Page-Based System = maintain gaps for the addition of words to not mess up motor plans

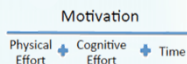
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- Sometimes, not even a highly motivated AAC user can overcome the challenges of an AAC system that is just not designed well enough to work for him/her. So... FIX IT.

Baker* Communication Equation

- “If the motivation to communicate a message is greater than the physical effort, cognitive effort, and time required to produce it, then communication will occur. If not, no message will be generated.”



- **Motivation:** how much the PWUAAC wants to communicate his/her message
- **Physical effort:** the amount of effort (and energy) required to produce the message
- **Cognitive Effort:** remembering where a message is located or how it is coded
- **Time:** how long it takes to produce the message

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AAC Users Living Long Lives in the Adult World

What does AAC Intervention look like for adults with I/DD who are aging and facing health issues?

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Adults using AAC systems have many of the same health issues as the rest of the aging population.

There are many health care disparities for aging adults with I/DD.



They are a vulnerable and underserved population.

AAC intervention plays a role in helping them deal with their aging and the aging of their parents.

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Aging of the Person using AAC

- Joints and Muscles
 - Arthritis
 - Repetitive motion injuries (e.g., carpal tunnel)
- Eye Issues
 - Presbyopia (see close up/small print)
 - Floaters and flashers, dry eyes
 - Cataracts (cloudy areas that block the retina)
 - Tired, strained eyes with screen time (20/20/20 rule)
- Hearing Loss
 - Presbycusis (usually changes in inner ear)
- Cognitive Changes
 - Memory loss and/or dementia
 - Depression & anxiety
 - Behavior changes
- Other Health Issues
 - Swallowing (g-Tube)
 - Pneumonia
 - Acid Reflux


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AAC Strategies



Support health care advocacy

- Program sentences into the device for talking with doctors
- Teach about and include vocabulary for all health issues and medications
- Role play medical visits to practice talking with medical team





Monitor changes in communication skills which may signal physical or health issues

- RS – tracking RATE of communication and MLU-M to monitor motor skill changes
- KA – tracking ERRORS and AMOUNT of communication to track vision changes
- All – tracking CONTENT to monitor depression, pain, etc.

Aging of Parents of a Person with I/DD

- There are almost 1 million families in which adults with I/DD are living with aging caregivers.

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- Parents and their adult children with I/DD are growing older together in a mutually dependent relationship
 - Companionship
 - Share household chores
 - Financially share household expenses
- Siblings/family are compound caregivers (“sandwichers”)
 - Dual stress and exhaustion
 - Fewer financial resources
 - Competing demands for their time
 - Concerns about the next generation taking over if the sibling with I/DD survives them



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A crisis may ... be at hand as aging caregivers, (whose adult children with intellectual disabilities and complex communication disorders live at home), can no longer care for them. According to The State of the States in Developmental Disabilities (2013), in 2011, 71.5 percent of people with these disabilities lived with family caregivers. Over the next few decades this group will flood the group home system (or go into nursing homes – GVT) as their parents age.

Carrie Kane, SLP at the Good Shepherd Rehabilitation Network in Allentown, Pennsylvania, “As Adults With Intellectual Disabilities Live Longer, They Need More AAC Support,” ASHA Leader.

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Talking about Death & Managing Grief

<http://www.intellectualdisability.info/mental-health/articles/managing-grief-better-people-with-intellectual-disabilities>

- Be open & honest about death and grieving
- Listen and be there for them (as they are for you)

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The Power of Relationships

... Every time I come back from a trip to Wisconsin, I can count on Duncan asking me about my parents, particularly my dad. And Robin will ask about my mom. Faye is always offering prayer and spiritual support. And Jonah and his mom continually remind me to “take care of your parents and don’t worry about us.”

During 1:1 chat times, my adults with I/DDhave told me to take care of myself (e.g., Duncan told me to go home and sleep because I looked tired). They have used their AAC devices to pray for me and my family (e.g., Ken said God could hear him in his mind, but I needed to hear the words too, so he used his AAC device).....

<https://gvantatenhove.wordpress.com>

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Talking about Death & Managing Grief

<http://www.intellectualdisability.info/mental-health/articles/managing-grief-better-people-with-intellectual-disabilities>

- Prepare them to participate in cultural rituals (e.g. funeral/memorial service)
- Respect photos and memories (e.g., add stories to notebooks in devices, record their stories via StoryCorps, etc.)
- Assist in searching behaviors (e.g., revisit childhood places, go to cemetery - “place gone dirty”)
- Support observance of anniversaries of family events



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Talking about Death & Managing Grief

<http://www.intellectualdisability.info/mental-health/articles/managing-grief-better-people-with-intellectual-disabilities>

- Upon the death of a parent/caregiver
 - Minimize change (for at least 2 months)
 - Placement – provide AAC services in new place
 - Provision of services – find new funding for AAC services
 - Avoid immediate assessment for future services
 - Seek specialists, as needed, for support services
 - Grief counselor



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Upon the Death of a PWUAAC

- Do a final Memory Transfer of their AAC program
 - Take device back to Default if donating/selling it
- Do a final download of the last things they said (LAM in PRC devices)
 - Print and share with family (if desired)
- Assist family in dissolution of technology bits & pieces
 - Donation
 - Private sale



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“I learned that courage was not the absence of fear, but the triumph over it. The brave man is not he who does not feel afraid, but he who conquers that fear.”

— Nelson Mandela

Helping the PWUAAC talk about health issues, illness, death, and dying helps them conquer their fears. Have the courage to do it with the adults you support.



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Thank you!
Comments? Questions?

To share your thoughts and experiences privately with Gail, please contact her at gvantatenhove@cfl.rr.com.



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