




State College Area School District

March 29, 2019

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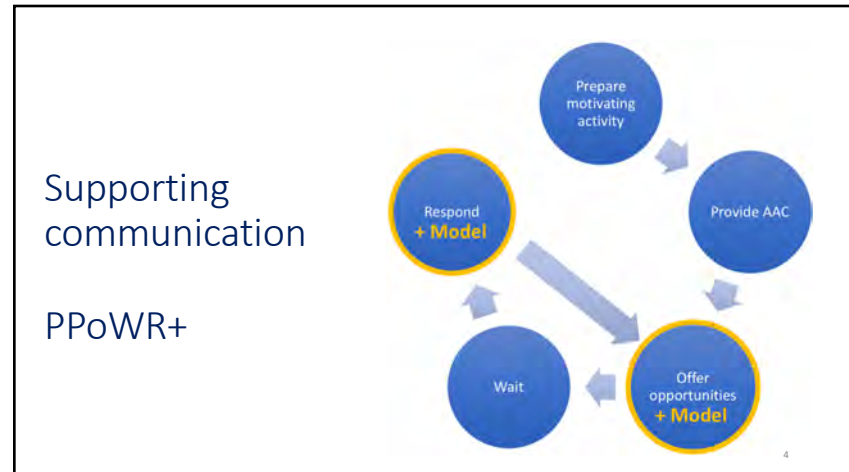
	David McNaughton	<ul style="list-style-type: none"> • 25 + years at Penn State • Worked as special education teacher and AAC consultant in Toronto, Canada
	Jess Caron	<ul style="list-style-type: none"> • 5 years at Penn State • Worked as a SLP and AAC consultant at Boston Childrens Hospital
	Salena Babb	<ul style="list-style-type: none"> • 3 years at Penn State • Worked as a special education teacher in SCASD

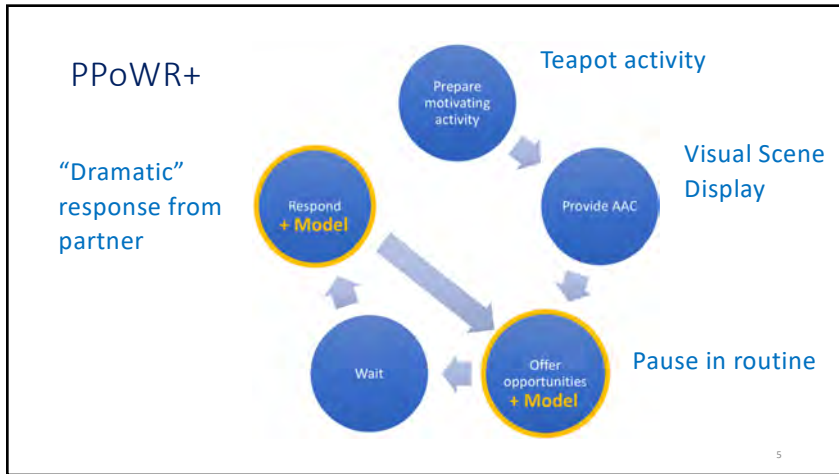
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Communication should be

- **Fun**
 - both needs and wants AND social
- **Easy**
 - Reward must exceed time and effort
- **Supported with models**
 - We learn by watching....
- **Supported with opportunities to “practice”**
 - We learn by doing..

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PPoWR+ : Jackson with Teapot activity

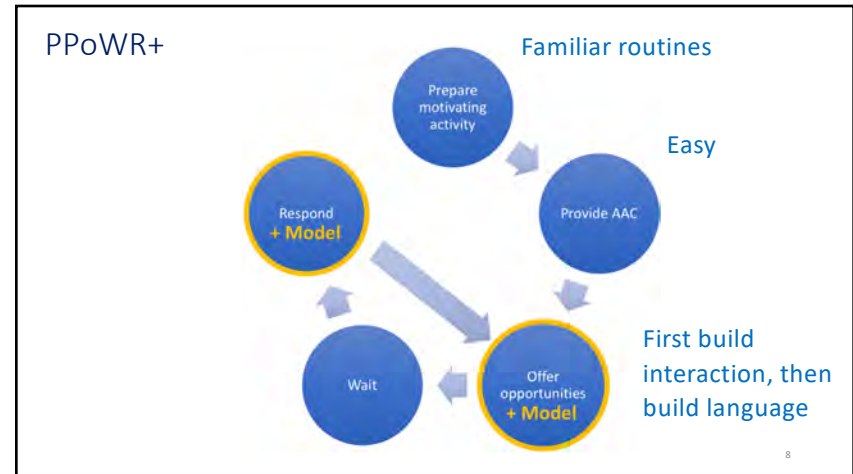
Prepare a motivating activity	• Song/play routine
Provide AAC	• Visual Scene Display
Offer opportunities	• Pause after each line
Wait	• At least 5-10 seconds
Respond	• Speak and act out story line
Model	• Speech, action, and process of making selection

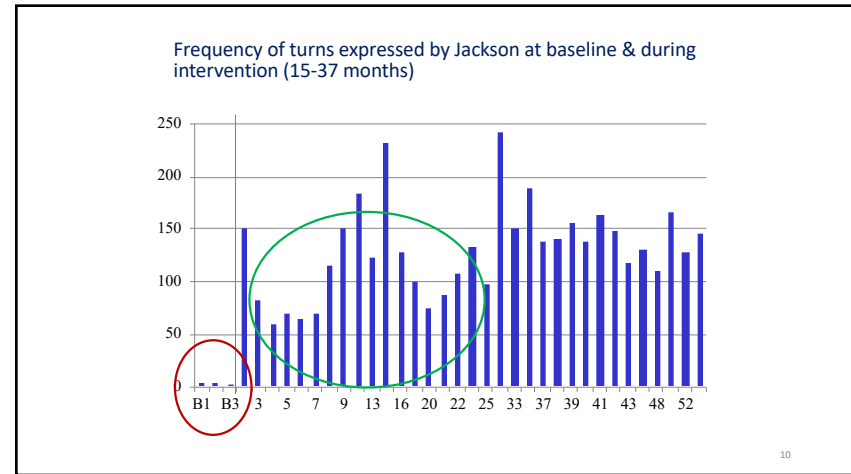
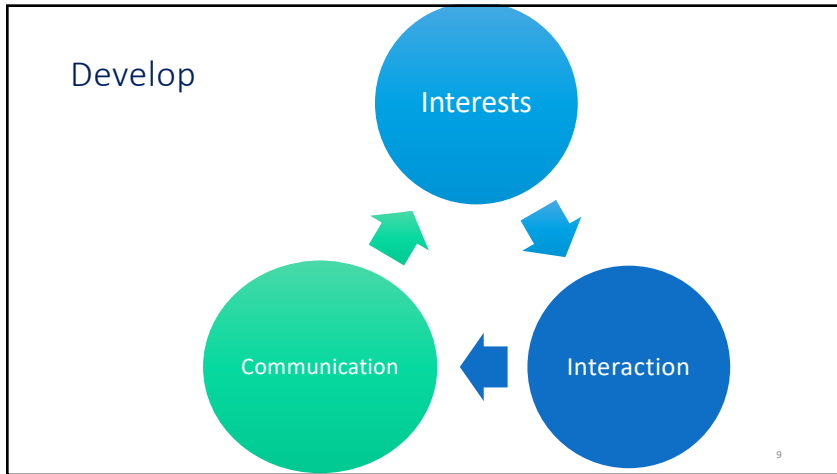
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PPoWR+ : Jackson with story book activity

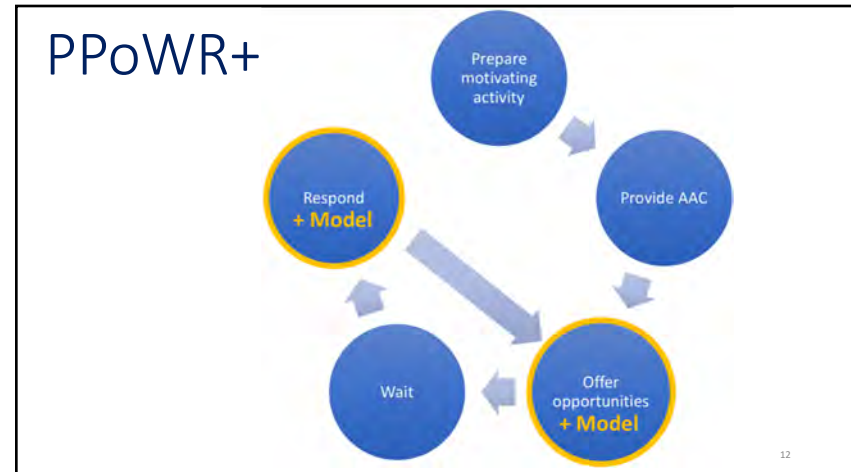
Prepare a motivating activity	• Story book
Provide AAC	• AAC display
Offer opportunities	• Pause within text to allow Jackson to participate with vocabulary
Wait	• At least 5-10 seconds
Respond	• Acknowledge selection
Model	• Speech, action, and process of making selection

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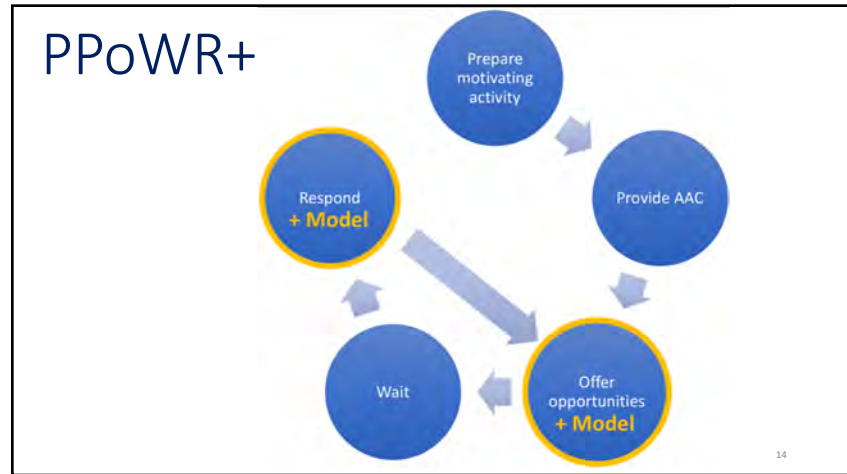
- Jackson – 2 years 9 months
- Acquired >1,000 words
 - Make representation of words **EASY**
 - Expresses 45-80 different concepts in 20 minutes of interaction
 - Typically uses single words
 - Increased use of 2-3 word combinations
 - Navigates aided AAC system independently
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PPoWR+ : Sal

Prepare a motivating activity	• Requesting food ?
Provide AAC	• Sign ?
Offer opportunities	• Pause
Wait	• At least 5-10 seconds
Respond	• Acknowledge selection
Model	• Speech, action, and process of making selection

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PPoWR Application: Case of B

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PPoWR+ : B

Background info/ Diagnosis	<ul style="list-style-type: none"> • 9 yrs old • Premature (26 w. gestation), Grade 4 intraventricular hemorrhage, Cortical Visual Impairment (CVI), Cerebral Palsy & recent ASD diagnosis • Vision report: needs frequent breaks/hard to sustain visual attention, doesn't visually fixate, 20/130 acuity, Stage 2 CVI
Communication before eval.	<ul style="list-style-type: none"> • Use of object schedules • Working on matching objects (e.g., 2 plastic containers)
Challenges	<ul style="list-style-type: none"> • Behaviors – flailing, screaming, and rocking

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PPoWR+ : B

- Beginning Communicator
 - Needs a way to express wants & needs
 - Needs ways to participate and engage
- Vision is key consideration – how do we work with this?

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PPoWR+ : B

Prepare a motivating activity	• Choice making of motivating items
Provide AAC	• 4 icon scanning (low & high tech)
Offer opportunities	• Present choices 2-3 seconds apart, give time to process without a lot of verbal input
Wait	• Preview choices, wait for a calm body, no/minimal while choices are being presented talking
Respond	• Provide & reinforce selection
Model	• Do some trials together!

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PPoWR+ : B

Prepare a motivating activity	• Choice making of 4 motivating items • Items change: Food, Puzzles, Toys
Provide AAC	• 4 icon scanning (SDP scanning training → GoTalk 4 icon)
Offer opportunities	• Present choices 2-3 seconds apart
Wait	• wait him out, give time to process without a lot of verbal input
Respond	• Provide & reinforce selection
Model	• Do some trials together!

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PPoWR Application: Case of E

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PPoWR+ : E

Background info/ Diagnosis	<ul style="list-style-type: none"> • 7 yrs old • ASD diagnosis • No vision, hearing, motor concerns
Communication before eval.	<ul style="list-style-type: none"> • Physical communication • Some speech • PECS – focus on requesting
Challenges	<ul style="list-style-type: none"> • Behaviors – escape

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PPoWR+ : E

- Stuck as Beginning Communicator due to lack of access to vocabulary??
 - Needs ways to participate and engage in tasks beyond requesting
 - Combine symbols? Support next stage of language learning → transition from single words to two-word combinations
 - Direct partner?
 - Comment?

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PPoWR+ : E

Prepare a motivating activity	<ul style="list-style-type: none"> • Playing with Elmo
Provide AAC	<ul style="list-style-type: none"> • Topic display on SGD
Offer opportunities	<ul style="list-style-type: none"> • Multiple opportunities to direct activity
Wait	<ul style="list-style-type: none"> • Give time to respond and participate
Respond	<ul style="list-style-type: none"> • Provide & reinforce selection by acting out directives
Model	<ul style="list-style-type: none"> • SLP –on system • Peer (brother) – on system

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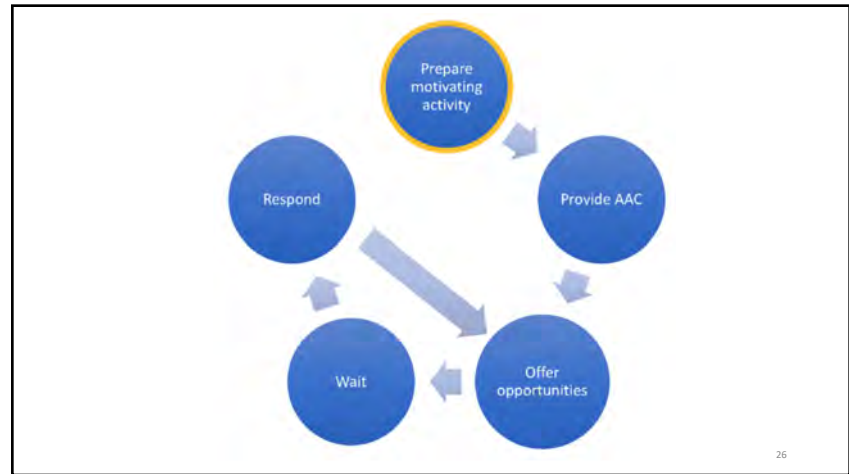
PPoWR+ : E

Prepare a motivating activity	<ul style="list-style-type: none"> • Toys/People + actions (simon says)
Provide AAC	<ul style="list-style-type: none"> • Topic display on SGD – moving beyond just NOUNS, teaching 2 word combinations
Offer opportunities	<ul style="list-style-type: none"> • Multiple opportunities to develop language and skills
Wait	<ul style="list-style-type: none"> • Give time to respond and participate
Respond	<ul style="list-style-type: none"> • Provide & reinforce selection by acting out directives/responding
Model	<ul style="list-style-type: none"> • Take turns! SLP & Peers

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Prepare a Motivating Activity

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- ## Identifying Motivating Activities
- First step: What are the interests?
 - Wants & Needs
 - For some that is going to be important for early communication skills
 - Social and routine activities
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Examples

Edibles	Snacks, treats
Activities/routines	Riding a bike, recess
Social opportunities	Delivering mail, work jobs, YouTube, movies
Technology	iPads, tablets, computer

- Sometimes it can be challenging to identify motivating activities

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Finding/Developing the student's interests

- Some students may not present with strong interests
- We need to engage them ("Teach" them to like something).
 - Possibilities: games, music, books (photo albums), singing songs, physical activities (walking, trampoline, etc).
 - What are their peers doing? (YouTube, music, physical activities)
 - How can those can be adapted?
 - How can communication be introduced into those activities?
 - What other routines can we add communication to?

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Finding/Developing the student's interests

- Preference assessments
- Reinforcer surveys - Ask parents/guardians
 - Who are the people and the activities that are important to the student in different environments?
 - Home interests can help in developing interests at school

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Finding/Developing the student's interests

- Talking mats – ask the student
- Collect data on if they are consistently selecting the same items
- *Integrate all teams responses
- *What is reinforcing in one setting may not be reinforcing in another



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Identifying Motivating Activities

- Social communication
- Using preferred videos with hotspots to support communication with a peer around a preferred topic
- Using videos and pictures to support communication



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Monitor for New Activities

- New interests develop overtime
- Interests change
 - Sometimes on the daily!
- Everyone is different – motivation is highly individualized

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Start with a Motivating Activity

- Needs and Wants
- Social Routines and Activities
- Lots of opportunities
 - Opportunities to ask for it again? More? Start? Stop?
- Quick reinforcement
 - Start with high rates and then fade
- *Start with activities that are engaging (art, cooking, music)
 - Then introduce communicating choices into the activity

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Butt...we can't watch YouTube videos all day....

- Control – sequence of activities
- Can you build in interests or motivation into a non-preferred activity?
 - Reading/Math apps
 - Literacy instruction with some preferred/motivating words
 - 'Work' that includes interests
 - Social opportunities

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- First, Then
 - Opportunity to provide choices!
 - Reinforcers
 - "When you finish X, you will get X."
- Preview the new activity
 - "Today we are going to try something new!"
- Time frame



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Visual Schedules

Clear positive images of child

Child can use stickers to self-monitor

Short clear instructions

Naptime Routine

	Listen to the story	
	Get your mat	
	Lay down on your mat	

If naptime is not a preferred activity, it would be a good idea to add a 4th step showing that after naptime, a preferred activity will occur

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Provide appropriate AAC to support participation/build communication skills

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Where to start....


Opportunities/Environments

Goals

Current communication

Cognition/ Current Language:
-Lexicon ??
-Literacy?


Motor, vision, hearing



AAC Needs:
-Representation
-Vocabulary
-Organization
-Output

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Where to start....



Cognition/ Current Language:
-Lexicon ??

goals

AAC Needs:
-Representation
-Vocabulary
-Organization
-Output

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Where to start....

What kind of communicator is the individual?
Design AAC & goals based on that...

- Pre-symbolic
- Early symbolic
- Semantic-Syntactic
- Emerging Independent
- Independent

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	Lexicon(#) & State Hallmarks	AAC Needs			
		Representation	Vocabulary	Organization	Output
Pre-symbolic	• <25 symbols	• Objects	• Relevant • Motivating • Meaningful • Consistently labeled	• NA	• NA
Early symbolic communicator	• Lexicon of approximately 25-50 words • Communication through single words • Comment on the current context	• Photographs	• Salient and meaningful • People, objects, actions familiar to the individual • "Grabbed" from the current context	• Schematic • Visual Scene Displays	• Digitized speech
Semantic-syntactic communicator	• Start of phase: Lexicon of at least 50-75 • End of phase: 200-300 • Shift from single-multi-words	• Photographs and line drawings	• Telegraphic 2-3 word utterance starting with known words and then expanding	• Grid	• Synthesized

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Emerging Independent communicator	• ~500 words • More range of syntax & expansion of utterance length	• Line drawings • Text/orthography	• Present and past tense • Range of vocabulary and concepts	• Grid • Alphabet/QWERTY	• Synthesized
Independent communicator	• 1000+	• Line drawings • Text/orthography	• Generative!!	• Grid • Alphabet/QWERTY	• Synthesized

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A few examples....

- Pre-symbolic
- Early symbolic
- Semantic-Syntactic
- Emerging Independent
- Independent

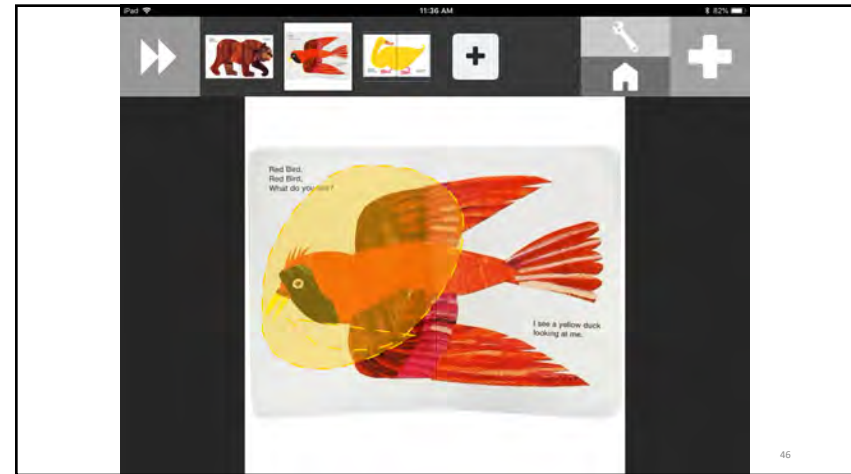
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Pre-Symbolic

- Pre-symbolic
 - Language stage: <9 months;
 - Partner carries lots of burden to support communication!
 - Shaping language learning through responses
- Working on:
 - Choice making with objects
 - Participation/ requesting continuation (e.g. more) / social connection
 - Cause & effect
 - Errorless participation



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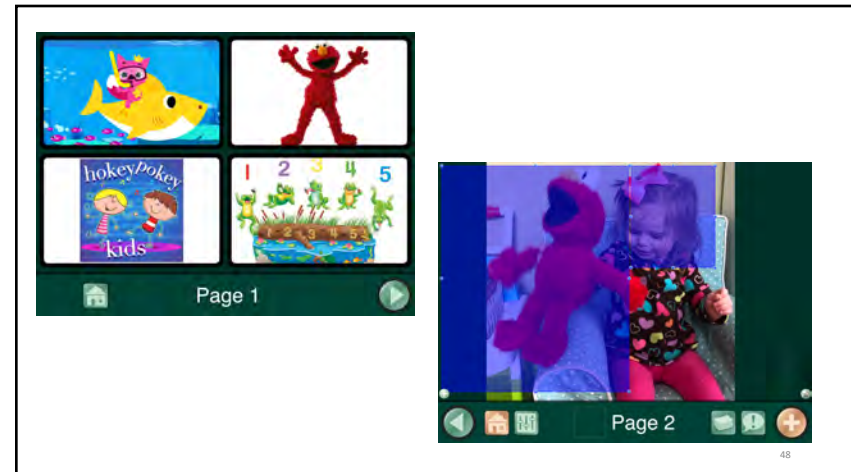


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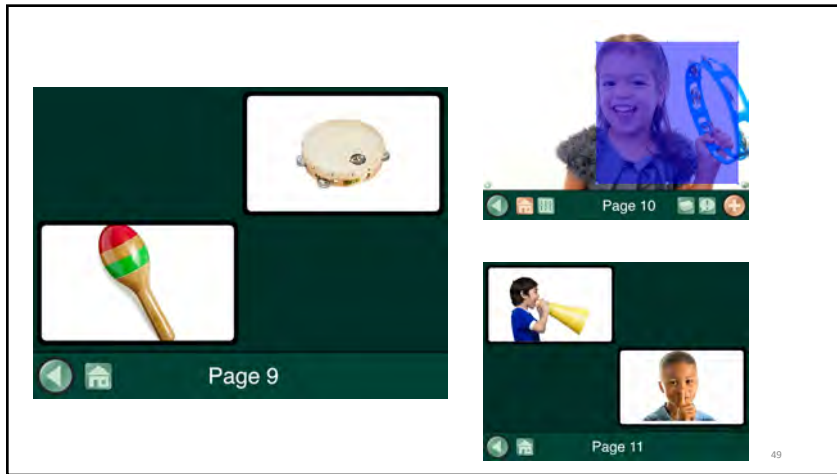
Early Symbolic

- Early symbolic
 - First word stage of language development
 - Single Words (~50 or less)
- Working on:
 - Choice making with objects → photographs → PCS
 - Participation/ requesting continuation (e.g. more) / social connection
 - Errorless participation and exploration
 - Cause & effect
 - VSD

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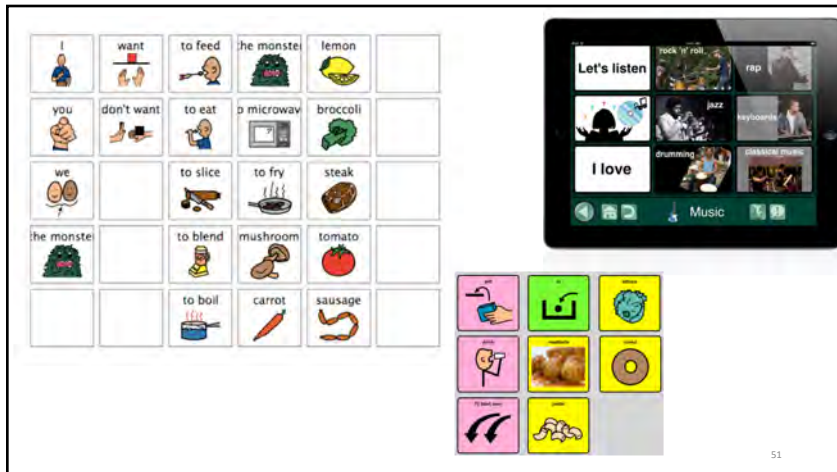


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Sematic Syntactic

- WORD COMBINATION STAGE!
 - Taking those single words and putting them together
- AAC:
 - Uses Photographs & line drawings
 - Vocabulary supports symbol combination (this means not just access to NOUNS!)



Emerging Independent & Independent

- Using more words together → generative
- AAC:
 - Line drawings
 - Line drawings + orthography
- Supporting AAC across partners & contexts, conversation
 - Email, text, social media
 - Supporting literacy / writing



App Name

Story Time

Describing Words

the wildebeests live together

like have so

wildebeest grassland are

walking they farmstead

Document1

On Monday we went swimming.
On Tuesday we went to the park.
On Wednesday we went |

we	went	town
On	to	Wednesday

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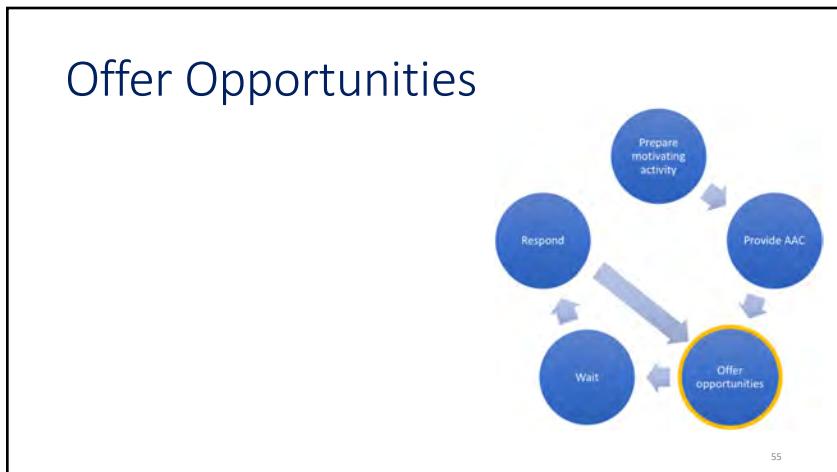
Document1

I like to watch Cats

watch	Cats	like
to	I	

Cats	I	watch
to	like	

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How is AAC used throughout the day?

- TEAM task
 - Supports and ideas from SLP
 - Implementation and integration from teacher & para

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Big & Small blocks of time

- What does the day look like?
 - How does AAC fit in?
 - What do you need to participate?
 - Who is helping?/leading?/responding?
- What does a 30 min. time block/session look like?

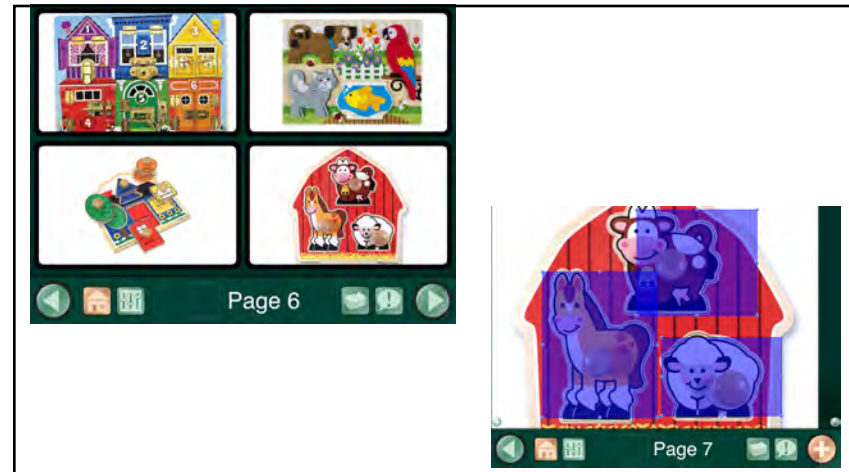
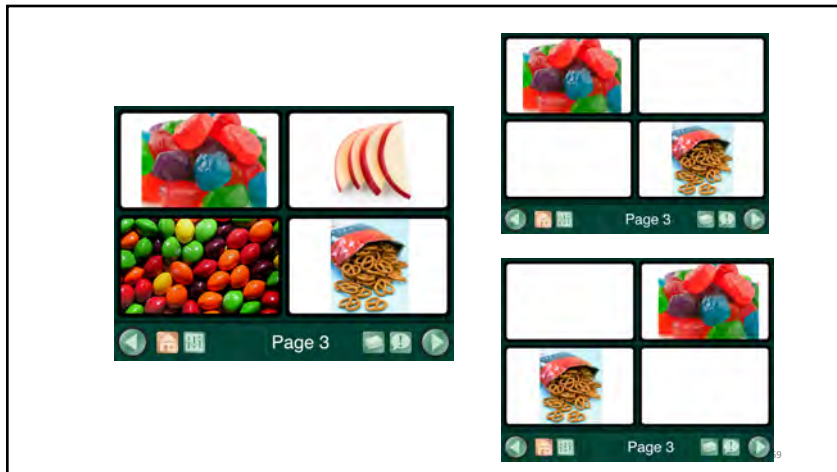
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Beginning Communicator Example

- **30 min sessions**
 - Choice making with objects or photographs (5-10 mins)
 - Errorless participation / social engagement (5-10 mins)
 - I say something → YOU do something
- REPEAT!



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Beginning Communicator Example

Day

- Morning meeting
 - Break out 1
 - Music
 - Break out 2
 - Lunch
 - Therapy (PT/OT/SP)
 - Break out 3
 - Group Activity
- Morning meeting
 - Sharing
 - Participation & choice making
 - Break out 1 (1:1 time w/ para)
 - Choice making of objects
 - Book reading
 - Music
 - Choices of objects for playing
 - Instruct class how to play instruments (fast slow loud soft)

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High School Example – GP TASK ANALYSIS

- Work Tasks
 - Shredding
 - Smoothies / hummus
 - Library
- Communication Opportunities
 - Social scripts
 - Communication embedded within work
 - Choices of what to listen to/do
- Leisure/Switch Work
 - Switch apps
 - Scanning through YouTube Channel/music options

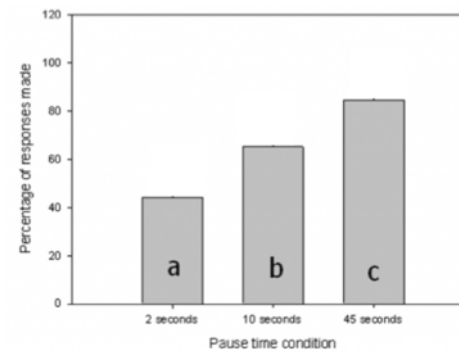
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Wait



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Impact of wait time



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Documenting opportunities for Bill: Communicating Choices

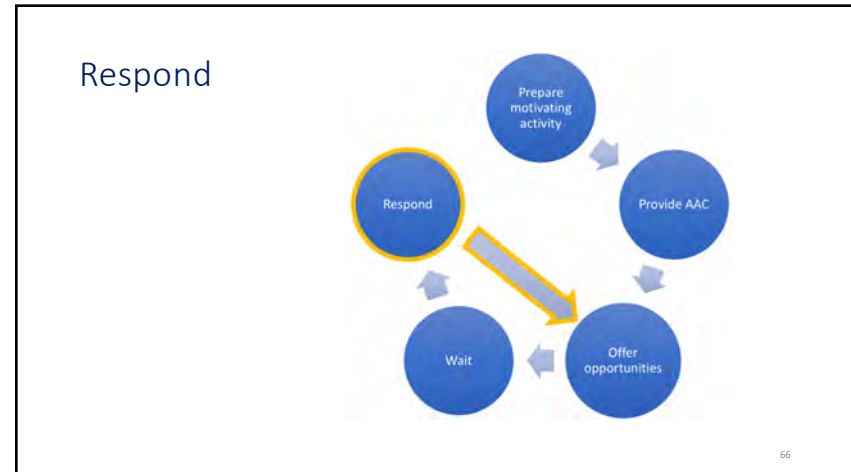

Opportunities

- Snack (coffee, cookies, water,
- Free time choice (music, magazines, books)
- Work schedule (worksheets, cleaning up)

Partner skills

- When Bill has a choice, present and label objects one at a time (e.g., "Bill, do you want to do worksheets or clean up"). **Wait at least 10 sec.**
- If Bill reaches, acknowledge and respond (You reached for the worksheet, you want the worksheet)
- If Bill does not reach in 10 sec, repeat offer. **Wait 10 seconds**
- Prompt by lifting hand. **Wait 10 seconds**
- Acknowledge and recognize eye-gaze (you are looking at the worksheet, you want the worksheet). Prompt to touch worksheet
- If Bill still does not respond, remove choices. Try another choice at a later time (as appropriate).

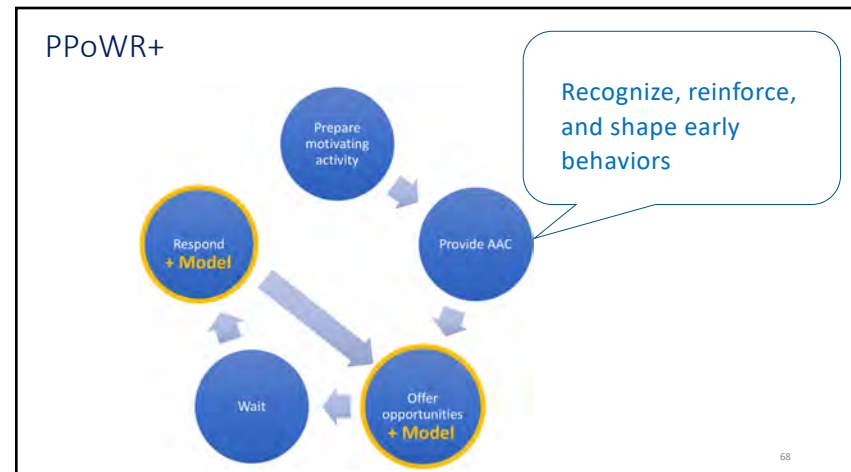
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Teaching Peers to Recognize Early Communication Behaviors

Christine Holyfield
Arkansas University
(Proud Penn State grad!)

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The Problem

- Older beginning communicators interact with wide range of communication partners
- Different communication partners respond in different ways



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What is the impact of

- a short, AAC app-based video training on participant's:
 - accuracy in judging video clips documenting the behavior of presymbolic communicators, and
 - self-reported level of certainty when making those judgments.



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Early Communicative Behaviors

What does it look like?	What does it mean?
<ul style="list-style-type: none"> • Smiles • Moves hand/arm 	"That's funny"

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Early Communicative Behaviors

What does it look like?	What does it mean?
<ul style="list-style-type: none"> • Smiles • Moves hand/arm 	"That's funny"
<ul style="list-style-type: none"> • Moves eyebrows down and together • Moves hand/arm 	"I'm unhappy"

Probes

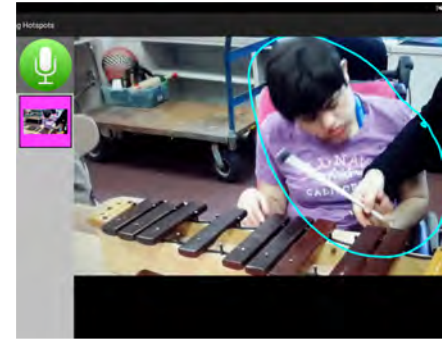
- 18 unique clips showing the communicative and non-communicative behavior of the students with multiple disabilities.



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Video Training

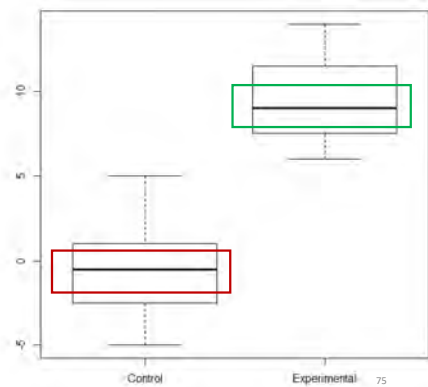
- multiple clips of communicative and non-communicative behavior.
- videoVSD software
 - with hotspots.



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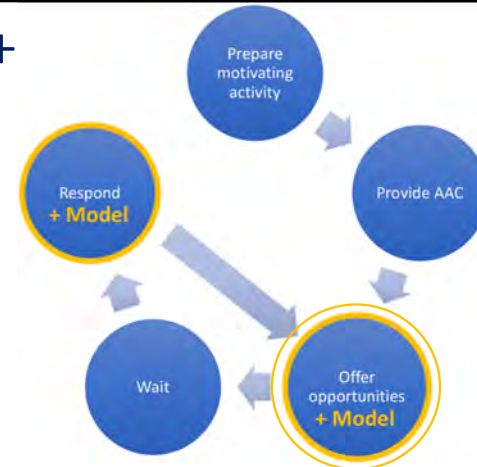
Gain Scores

- Significant difference between control and experimental group



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PPoWR+ Model



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