

AAC, ABA AND BEYOND

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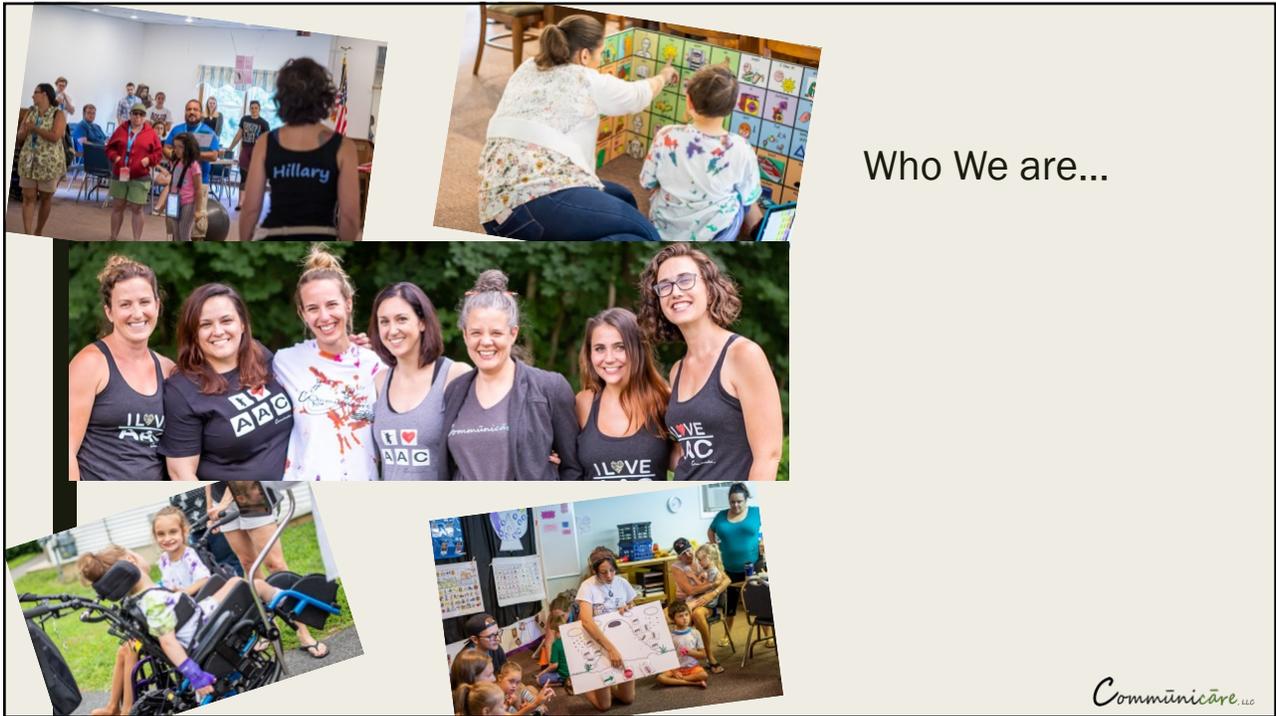
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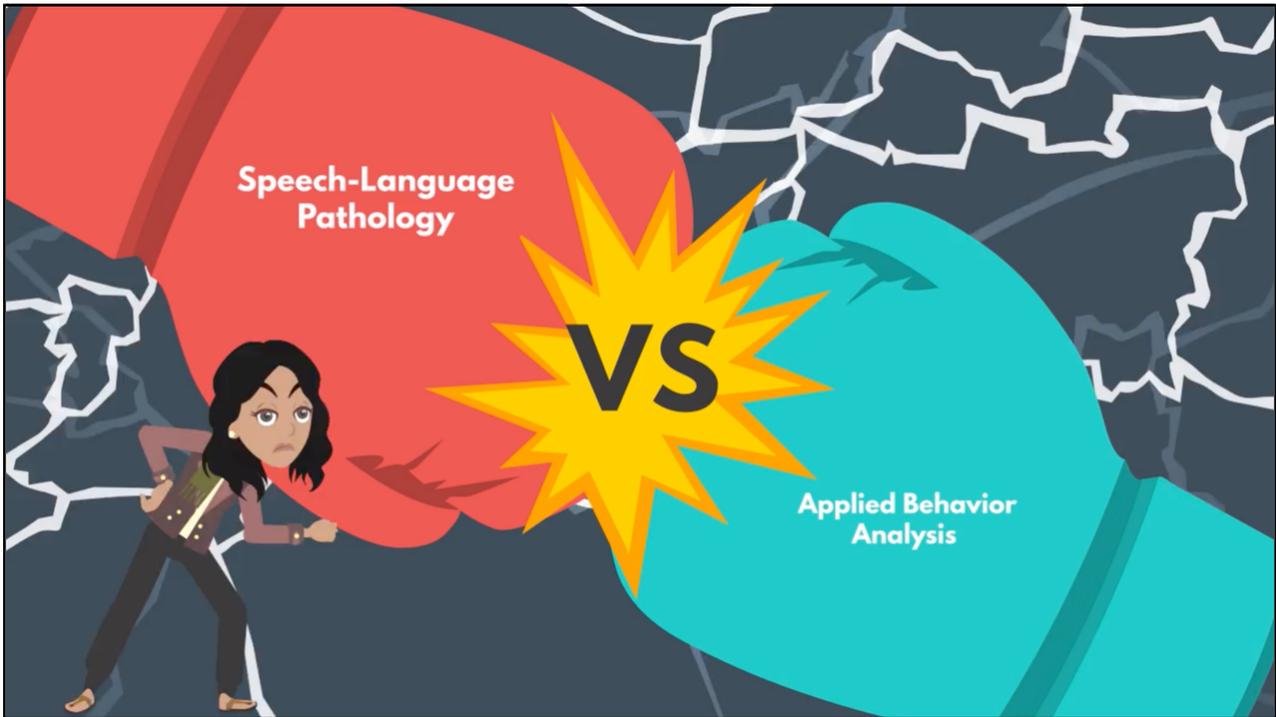
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Speech-Language Pathologist

- Contextual, environmental factors
- Assessment and treatment of language disorders
- Modalities and technology
- Collaboration





Behavior Analyst

- Environmental analysis and changes
- Expertise in measurement and experimental design
- Select interventions based on client's preferences
- Use of AAC systems as a behavior change system
- Ethically required to cooperate with other professionals



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Transdisciplinary

“Transdisciplinary is an integrative process in which researchers work jointly to develop and use a shared conceptual framework that synthesizes and extends discipline-specific theories, concepts, methods, or all three to create new models and language to address a common research problem.”

Stokols et. al, 2008





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Transdisciplinary between SLP and ABA =

- Development of solutions to common clinical questions
- Development of a robust language system
- Use of precise measurement and single-subject design to determine the effectiveness of programming
- Development of evidence-based language programming for individuals using AAC
- Technological (clear write up)



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Applied Behavior Analysis (ABA)

“Applied behavior analysis is the science in which the principles of the analysis of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for behavior change,” (Cooper, 2007)

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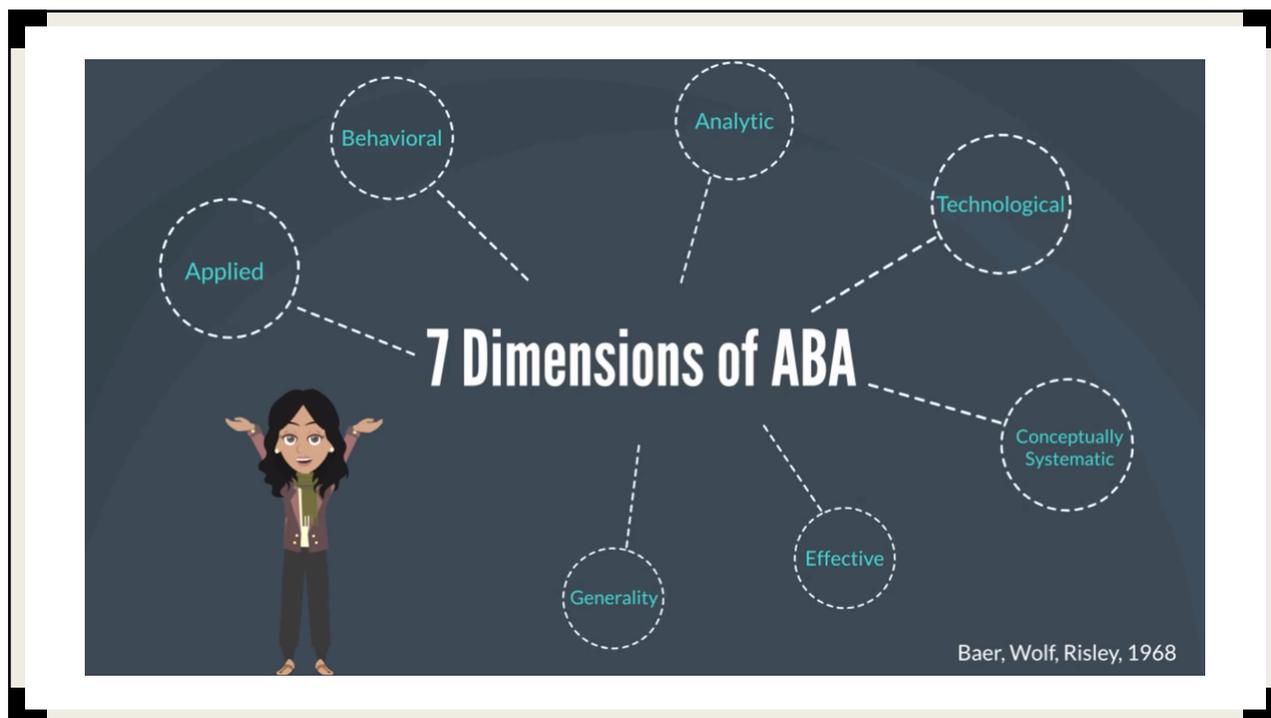
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Applied Behavior Analysis (ABA)

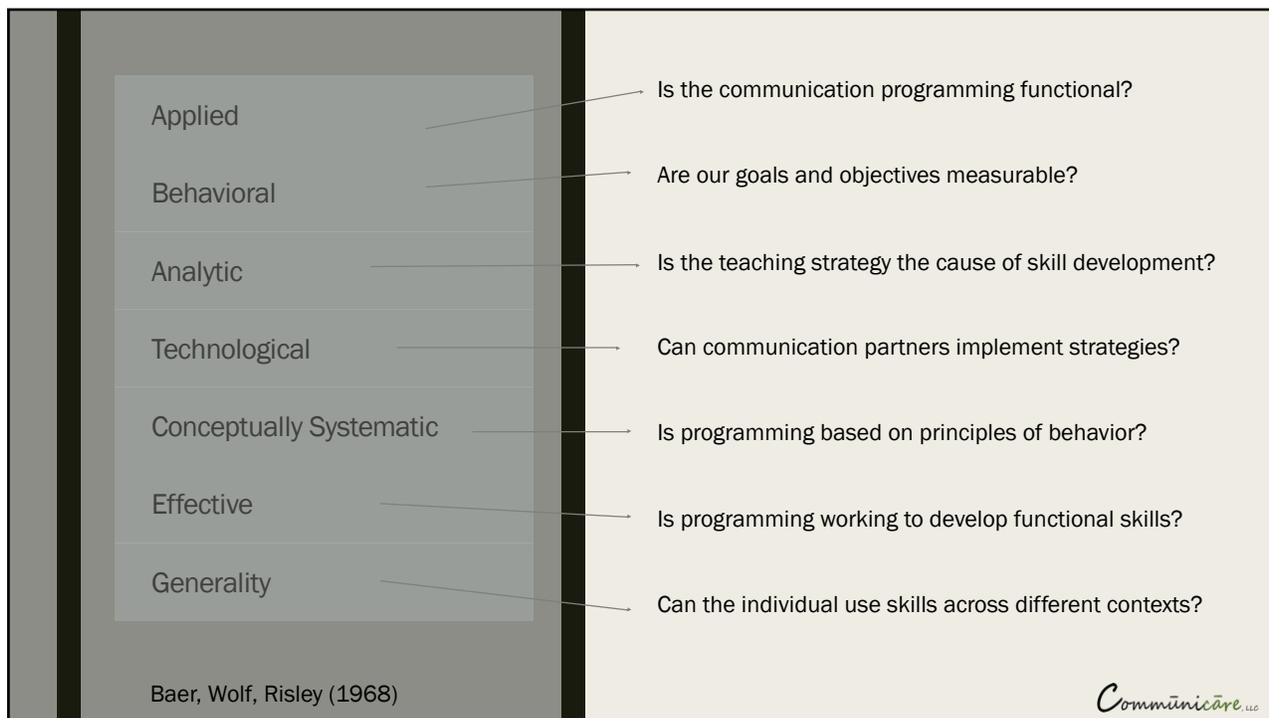
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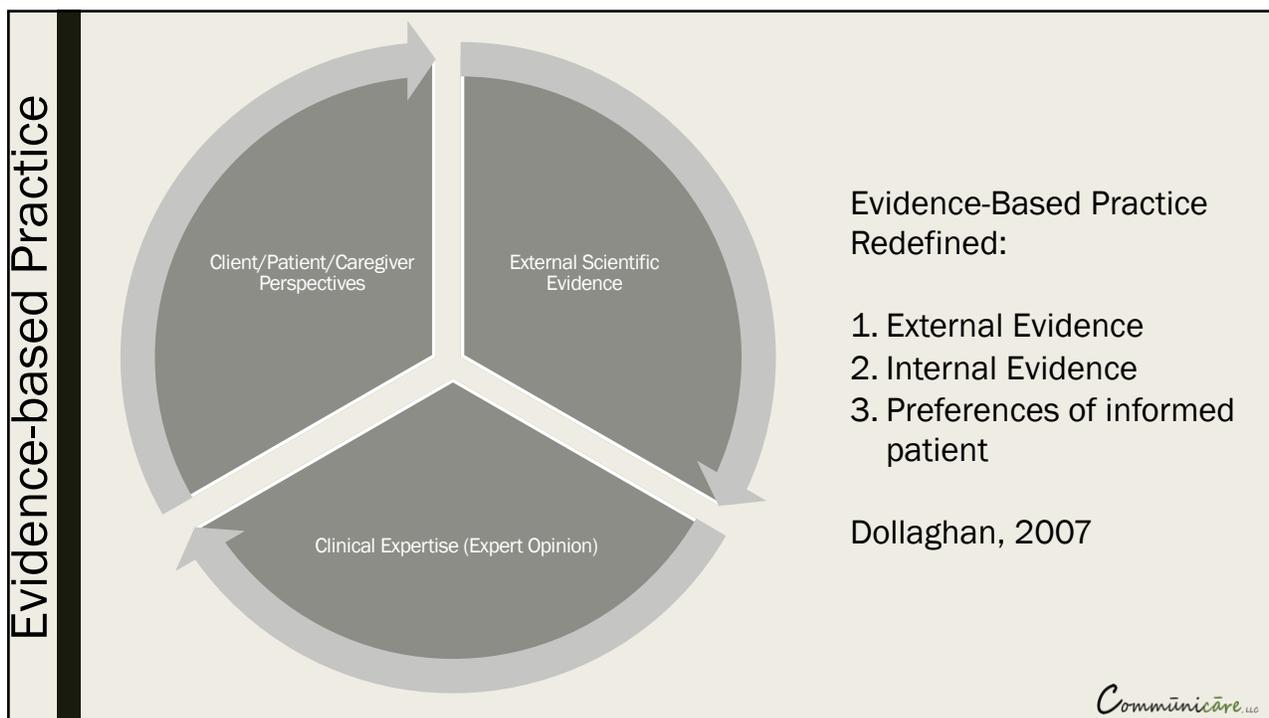
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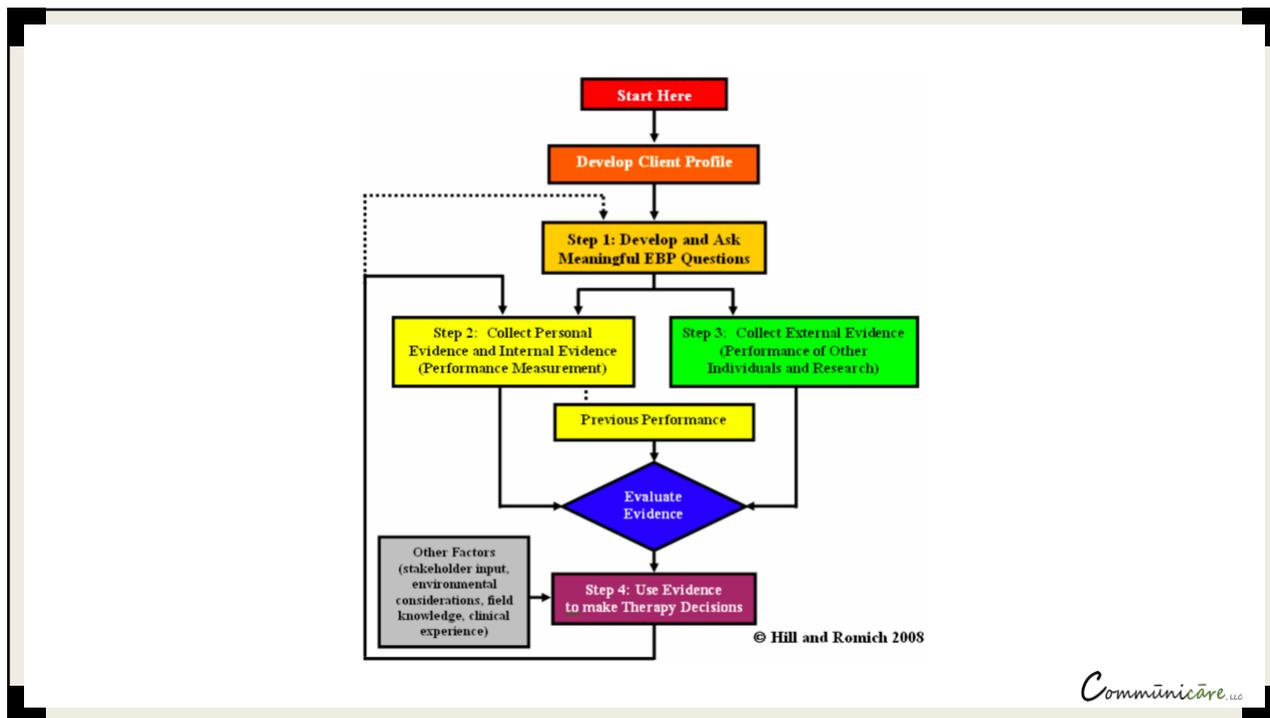
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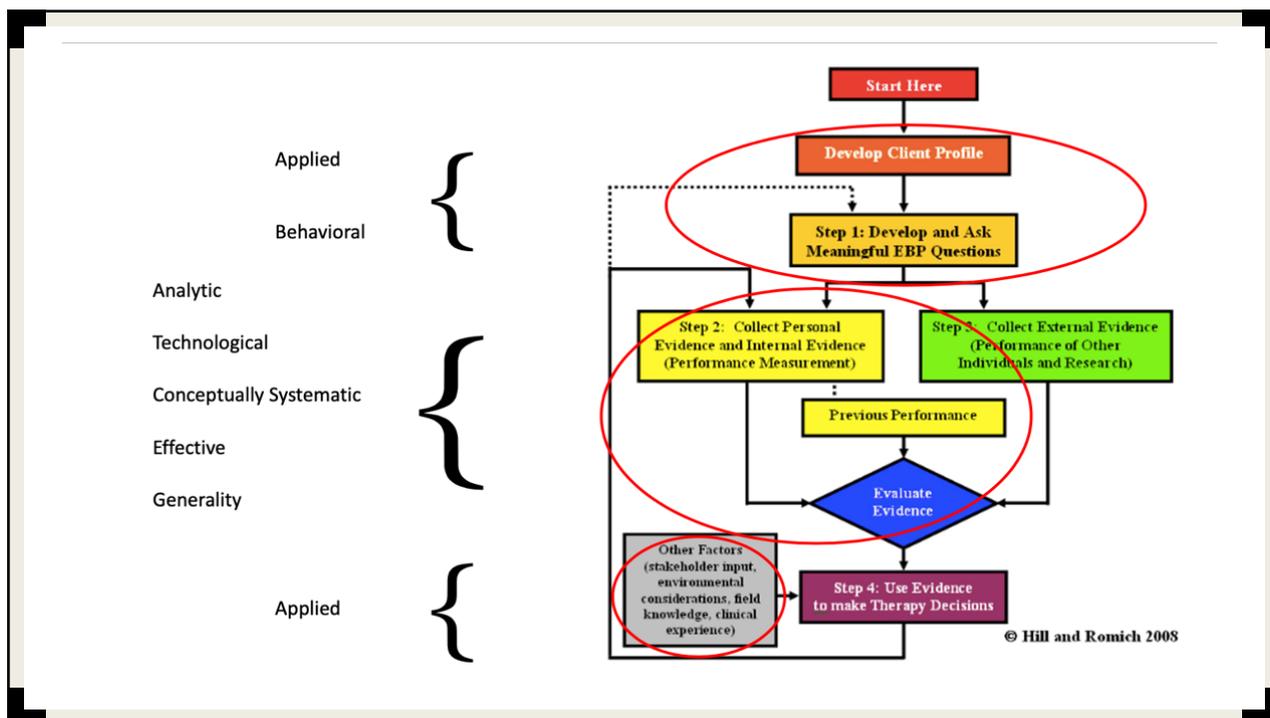
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Applied	Is the communication programming functional?
Behavioral	Are our goals and objectives measurable?
Analytic	Is the teaching strategy the cause of skill development?
Technological	Can communication partners implement strategies?
Conceptually Systematic	Is programming based on principles of behavior?
Effective	Is programming working to develop functional skills?
Generality	Can the individual use skills across different contexts?

Baer, Wolf, Risley (1968)

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Preference Assessment



- Identification of Preferences
 1. Items
 2. Interaction with items
 3. Interaction with communication partners
- Analysis of context
- Function of communication
- Identification of not only fringe but **core** vocabulary

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Responsive and Effective

REAL

Analysis of Language

PREFERENCE LANGUAGE PLAN

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Preference Language Plan: Activity: *Play w toys at desk*

Observation			Language Planning										
Time engaged: <i>30 minutes</i>			Function										
What items do student engage with? (fringe)			Manding					Tacting			Other		
What items do student engage with? (core)			Requesting	Directing	Asking for Help	Rejection	Cessation	Asking Question	Answering Question	Labeling	Commenting	Greeting/Parting	Vocabulary
Antecedent	Behavior	Consequence											
1	A Shake egg		✓									want do	
	B reach egg											open	
	C give egg											look	
2	A toy stopped		✓									go	
	B turn											do	
	C turn and make go											turn	
3	A out of reach		✓									want more	
	B reach for apple											open	
	C give apple & Eeppened											go	
4	A toy stopped			✓	✓							go you	
	B turn wrong way											help	
	C modeled help and make go											do	
5	A toy stopped moving			✓	✓							go you	
	B turn wrong way											do	
	C model help and make go											help	
6	A toy stopped moving			✓	✓							go do	
	B turn wrong way											help	
	C modeled help to CP, CP modeled											do help you	

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 preference expansion: making things go; looking on containers

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Identifying Baseline Language Skills/ Language Sample:

Communication Partner	X Initiated	Function
What are we going to earn?	Mickey Mouse	Answer question/choice making
Sit-ups or hop and gallop	Sit ups	Choice making
	No (doing sit-ups and stopped)	Protest
Do you want to ride bike	Yes	
	Nothing when blocking access	
	I need help	
	Reach in bag presymbolic; pushing elbow,	
CP holds ball overhead without throw	Throw	
CP holds ball overhead without throw	Throw	
	Cart	Labeled shopping cart
	Go/I need help	
Mickey car out of reach	turn	
Mickey car out of reach	My turn	
Ready set,	go	
	Hug (with pulling of CP arm)	
	Me (pulled to hug)	

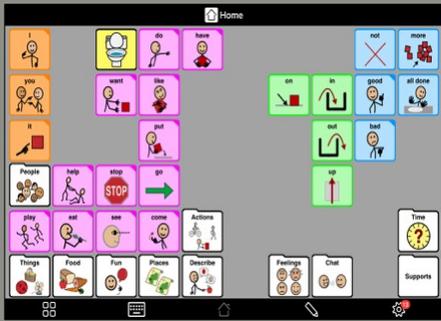
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Then what?

Communication Support Plans

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Communication Support Plan: Part 1



Communication System: Proloquo2Go on iPad
X uses the Proloquo2Go application to supplement his verbal communication. While X is able to produce speech, his use of language to communicate for variety of purposes (ex: requesting, directing the actions of his communication partner, asking questions) is limited. His communication system features both core and fringe vocabulary.

Core Vocabulary: words that have multiple meanings that can be used in a variety of contexts (ex: want, eat, play, go, help)

Fringe Vocabulary: context specific words that are primarily nouns (ex: roller skates, Sprite, cookie)

It is important for X to have access to both core and fringe vocabulary in order to communicate for a variety of purposes beyond requesting and in order to combine words in different ways to express himself.

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Teaching Strategies: Part 2



Aided Language Modeling

- While communicating with X, staff pairs his or her verbal communication with the use of his device. For example, when verbally stating, "It's time to eat lunch," press eat on his communication device.
- Behavior skills training module on aided language modeling located on classroom google drive.
- **Please refer to language modeling plan.**

Prompting

- When X initiates presymbolic means to communicate a message (ex: gesture, point) provide a point prompt to corresponding word on communication device. For example, X points to his shoe because it is untied, provide a point prompt by hovering over the, "help," button.
- **Behavior skills training module on aided language modeling located on classroom google drive.**

Expansion Modeling

- When X initiates speech or a communicative attempt on his device, the staff member models a longer phrase, expanding upon the X use of language. If X uses one word to communicate, the staff member can model combinations of 2-3 words to expand the message. X is not required to demonstrate the expansion. For example, X selects "go" on his device to direct his communication partner to push him on the swing. His communication partner models a longer utterance, "go fast" on his device.
- **Behavior skills training module on aided language modeling located on classroom google drive.**

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Antecedent Manipulation / Environmental Arrangement : Part 3

The environment or activity can be arranged to elicit communication for different purposes. Examples include:

Function	Antecedent Manipulation Example
Request	Preferred item is placed out of reach; preferred item is placed out of sight; X is provided with limited access to preferred item (ex: few pieces of snack item)
Directing actions	Communication partner discontinues performing preferred action for X (ex: pushing on swing, providing squeezes); communication partner does not initiate performing preferred action for X.
Request assistance	Preferred item is placed in a tightly sealed container and individual is unable to open it; passcode is placed on iPad or computer

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Part 4:

VB-MAPP Level	1		2			3								
Communicator Level	Emergent		Context Dependent			Independent								
PRC Stages	1		2		3		4		5		6			
MLU Range	1		1.5-2.5		2.5-3.0		3.0-3.75		4		4.5+			
Functions	Naming, commenting, requesting objects, requesting information, responding, protesting, reacting		Requesting action, responding to requests, stating, regulating conversational behavior			Other performatives such as teasing			warning, sarcasm, humor metaphors					
Phrase Types	Agent Object Action Possession		Subject + verb Verb + object Verbal + Subject + object Question + _____			Subject + verb + object Subject + verb + adverbial Verb + object + object Verb + object + adverb Question + object + verb Verb + object Subject + verb + object + adj. Subject + verb + obj + comp. Subject + verb + obj + obj Question + verb + obj + obj Question + verb + subject								
Verbs	Present tense verbs					-ing Infinitive complement		Irregular past tense Imperatives Uncontractible copula Past tense modals		Regular past: -ed 3 rd person regular present tense Future tense				
Plurals						Regular plurals								
Possessives						Possessive: -s								
Articles														
Prepositions						In, on, under								
Pronouns	I, it		My, me, mine, you			She, he, yours, we		They, us, hers, him them, her						
Adjectives			Size, Temperature			Color, distance, quality			Comparative (-er) Superlative (-est)					
Adverbs	What					Place, number Yes/no		Manner, purpose Who when, why, which, how, Interrogative reversals		Tag questions Negative interrogative				
Questions						What, where								
Conjunctions						And		But, or						
Negatives	No		Not			Don't				Subordinating conjunctions				

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Technological and Analytical

Break it down this discreetly so that the process is replicable across people and environment.

don't				green			
down				happy			
eat				hello			
fast				help			
finished				in			
go				like			

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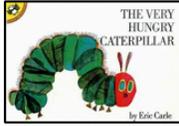
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Communication Activity List

	Activity Arrangement	Model	Consequence
	Toy off and placed on table	Turn on	Toy performs movement
	Toy off and placed on table	Go	Toy performs movement
	Toy starts going	Look	Observing toy's movement
	Toy stops moving	Do more	Make the toy go again
	Toy placed in container – shake	Open	Open and see what is inside
	Open container and point inside	Look	Observe what is in container
	Take toy out	Out	Able to interact with item
	Toy out of container on table	Put in	Place toy in container
	Initiate taking turn by taking apple	Turn	Play with apple
	Pull car back and do not release	Go	Release and make the car go
	Retrieve car	Do more	Make the car go again
	Place are at top of ramp	Down	Release the car down the ramp
	Initiate taking turn by taking car	Turn	Play with car
	The car stops moving	Stop	Attention brought to car stopping

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	Activity Arrangement	Model	Consequence
	Blow bubbles	Look	Directed to look at bubbles
	Discontinue playing bubbles	Want	Blow more bubbles
	Discontinue playing bubbles	Go	Blow bubbles
	Position want in upward position	Upward	Blow bubbles upward
	Present book	Read	Begin reading book
	Don't immediately turn the page	Turn	Turn the page
	Put food near caterpillar's mouth	Eat	Put food in caterpillar's mouth
	Put food near caterpillar's mouth	Put in	Put food in caterpillar's mouth
	Food is in caterpillar's belly	Look	Observe what is in belly
	Do not initiate swinging	Go	Initiate swinging
	Swing stops	Stop	Attention drawn to stopping
	Swing stops	Do more	Resume swinging
	Swing stops	Want	Initiate swinging
	Do not initiate bouncing	Go	Initiate bouncing
	Initiate bouncing	Up	Make go up
	Ethan approaches therapy ball	Play	Play with ball
	Therapy ball stops	Stop	Attention drawn to stopping

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**TECHNOLOGICAL:
THE IMPORTANCE
OF SYSTEMATIC
TRAINING-
BEHAVIOR SKILLS
TRAINING**

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Team Members	Core vs. fringe	BST Modeling	Communication opportunities	BST Prompting	BST Expansion Modeling
Student					
Parents					
Teacher					
Para					
SLP					
OT					

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Take Aways...

- When we use evidence-based practice for AAC we are following best practice for our students.
- Evidence-based practice for AAC aligns with the principles of ABA
- We are just showing evidence and data for what we might know intuitively as speech language pathologists



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The Commūnicāre Learning Team has a number of presentations and publications in various formats. View the sections below to find handouts, references, publication links, and additional resources. Please don't hesitate to contact us if you can't find what you are looking for.

Conferences...



Offered by: Sarah Fitta, MA.CCC-SLP, BCBA
Hillary Jellison, MS.CCC-SLP, ATP

This presentation reviews how we can use the principles of ABA to help support successful AAC implementation within the home and classroom setting to develop functional communication skills for individuals with complex communication needs.

[Handouts...](#)

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· REAL · Responsive and Effective Analysis of Language

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[Sarah Fitta](#)

A transdisciplinary approach to Augmentative and Alternative Communication (AAC) that integrates the sciences of speech language pathology and applied behavior analysis.”

Sarah Fitta, Founder and Author of REAL AAC



About

About

REAL - Responsive and Effective Analysis of Language - is a systematic approach to evidence-based intervention and assessment procedures. It is primarily designed to support individuals with complex communication needs, benefitting from AAC, but can be implemented with any learner.



systematic
evidence-based
effective

REAL, AAC is an approach to ensuring the **internal integrity** of the services we provide. This is essential. This tells us that what we are doing is effective. It is a critical element of what speech language pathologists need to do

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