





PROGRESSIVE APPROACH TO TEACHING


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WHAT IS DISCRIMINATION?

- SD and S-Delta: Knows what is and what is not (e.g. colors)


	"RED"
SD	Response
  	"???"
S-Delta	Response



WHAT IS DISCRIMINATION?

- Learning associations


$2+2$	"3"	
SD →	"1"	"4"
		"7"



WHAT IS DISCRIMINATION?


- Learning associations

	S-Delta	
	→ $1+1$	
SD	→ $2+2$	"4"
S-Delta	→ $3+6$	
	→ $2+5$	



WHAT IS DISCRIMINATION?

- Learning associations
 - Categories
 - Cow goes with horse
 - Apple goes with banana
 - Where things go
 - Shoes go on feet
 - Spoon goes in the sink
 - Names of body parts
 - Describing action



Simple discrimination

- Item itself is SD for response (indicates which response to make in order to get reinforcement)
- Certain jelly beans taste good
 - Pink Jelly Beans Taste Good; Red Ones Taste Bad
- Target in isolation:
 - toy car is SD for driving; if you push the car you will receive reinforcement



Conditional discrimination

- When the rule changes
- More information is necessary in order to know which response is correct
 - Jar A has jelly beans from Jelly Belly
 - Jar B has jelly beans from
- Drive car only gets you reinforcement if teacher says “drive the car”.



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Conditional Discrimination:

- Most cognitive tasks require conditional discrimination
- If we are not careful we end up teaching something other than what we intended to teach

Ex: *NVI OBJECT MANIPULATION* with only one item present or only one action performed with item

- This is not conditional discrimination



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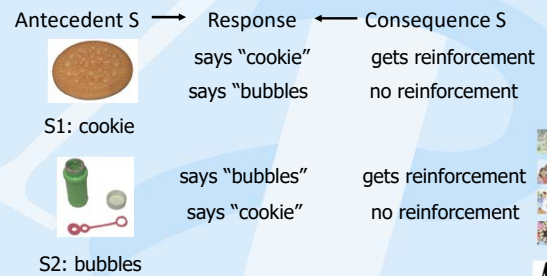
COMPONENTS OF A DISCRETE TRIAL

- Instruction or event
- Prompt (only if needed)
- Opportunity to respond (approx. 3-5 secs.)
- Feedback or other consequence
- Intertrial interval



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Three Term Contingency



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Three Term Contingency

- Need to have a temporal link between components
 - if response is not linked to antecedent stimulus then there is no discrimination



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Should These Items Be Part Of The SD?

- Person (which teacher)
- Setting variables
 - Environment
 - Persons
 - Time




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Role Of Context As Part Of The SD:

- Different free operant behavior in church vs. playground
- Repeated trials (Massed trials) works because of context
 - but response may be linked to context, not intended SD
- You know it's OK to drink this cup of coffee because you recently placed your cup in that location


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Role Of Context As Part Of The SD:

- Drills become a context
- Behavior taught in the distinctive context of a drill may not generalize because the context (drill) becomes part of the SD


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EXTRANEOUS VARIABLES THAT NEED TO BE CONTROLLED

- When those features are absent the remaining (intended) SD is less likely to occasion the intended R
 - e.g., instructions given in a booming voice
- Context as a prompt
 - repeated trials
 - If drill context is not faded then it becomes part of the SD

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SELECTING PROMPTS

Antecedent S → Response ← Consequence S

S-prompt ↑

- Students may actually ignore the S that is intended to be the eventual S^P
 - salience
 - previous history

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SELECTING PROMPTS

THE GOLDEN RULE

IF THERE IS AN EASIER WAY TO GET THE CORRECT R, YOUR STUDENT WILL PROBABLY FIGURE IT OUT


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SELECTING PROMPTS

- Each trial conducted with the S-prompt present, serves to strengthen the function of the prompt as SD
 - this will make it harder to fade the prompt

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SELECTING PROMPTS

S8 S3 S2
 Intended SD → Response ← Consequence S
 S6
 S-prompt ↑
 S5 S7 S4

- Other aspects of the teaching situation can also become part of the SD

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EXTRANEOUS VARIABLES THAT NEED TO BE CONTROLLED

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 - e.g., instructions given in a booming voice
- Context as a prompt
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SELECTING PROMPTS

- Prompt dimensions
 - Intrusiveness
 - Assistiveness
 - Fadeability
 - Scalability (vs. ALL or NONE)

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PROMPTING DECISIONS

- Deciding prompt type
 - Which prompt?
 - Scaleable vs. All-or-none
 - Intrusiveness vs. Fadeability

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COMMONLY USED PROMPTS

- Physical guidance (e.g. hand-over-hand)
- Verbal
- Gestural/pointing
- Modeling/Demonstration
- Proximity
- Recency

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PROMPTING DECISIONS

- Deciding prompt type
 - Which prompt?
 - Scaleable vs. All-or-none
 - Intrusiveness vs. Fadeability
- Deciding timing of prompt
 - Before trial?
 - Simultaneous with SD?
 - Delayed?

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WAYS OF FADING PROMPTS

- Reduce intensity
 - Less physical pressure
 - Decrease volume
 - Fainter visual image
- Eliminate part of the prompt
 - Partial verbal or auditory prompt
 - Backward or forward chaining
 - Spelling a word


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WAYS OF FADING PROMPTS

- Shorter duration
 - Brief display of visual
- Delay onset of prompt
- Slow down progression of prompt
 - Guide student slowly to target


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FLEXIBLE PROMPT FADING

- Deciding to fade prompt
 - How soon to Retest following prompted trial?
 - Can you provide reduced level of prompt on retrieval (fading)?


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Differences Among Various Teaching Procedures

- Aim to minimize errors?
- Proactive decision to prompt vs. reactive (error correction)
- Assume learning progresses in straight line trajectory?


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Differences Among Various Teaching Procedures

- When can a prompt occur?
 - Simultaneous or very slight delay
 - Longer delay but before incorrect R
 - May necessitate teaching student to wait
 - Prior to commencement of trial
 - After incorrect R: this is error correction


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Differences Among Various Teaching Procedures

- Direction of prompt hierarchy
 - Most to least
 - Least to Most
- Willingness to use variations in prompt schedule as differential reinforcement for certain aspects of learning behavior


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Differences Among Various Teaching Procedures

- Use of Differential Consequences
- Preamble (verbal explanation that precedes trial or series of trials)
 - For receptive labels, name each item as you put it into the field

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Differences Among Various Teaching Procedures

- **Aim to minimize errors?**
- Proactive decision to prompt vs. reactive (error correction)
- Assume learning progresses in straight line trajectory?

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PROCEDURES WHICH MINIMIZE ERRORS

- Simultaneous (0 sec. delay)
- Constant Time Delay
- Progressive Time Delay
- Most-to-Least Prompt Fading

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PROCEDURES WHICH ALLOW ERRORS

- Least-to-Most Prompt Fading
- Flexible Prompt Fading
- Wrong-Wrong-Prompt
- Error Correction

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PROCEDURES BASED ON TEMPORAL ARRANGEMENT

- Trace Prompts (memory trace of very recent event)
- Priming
- “MASSED” TRIALS
- Expanding Trials

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CONSTANT TIME DELAY

- Controlling Prompt
 - ensures correct responding at 90% or above
 - least intrusive controlling prompt is used
- Initially, the controlling prompt is provided simultaneous to task directive (0 s delay)
 - initial session or specified block of trials
- A fixed delay interval is used until criterion is met
 - 4 s prompt delay interval is the most common

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CONSTANT TIME DELAY

- All correct responses (prompted or unprompted) result in reinforcement
- Incorrect or no responses can result in the following consequences:
 - verbal feedback (e.g., “No”)
 - removal of the stimulus
 - a short in seat time-out (e.g., looking away for 10 s)
 - a reminder to wait
 - assistance
 - a combination of the above

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CONSTANT TIME DELAY

- The order in which the target stimuli are presented and arranged for each trial is determined prior to each instructional session (see data sheet)
- New targets are introduced following criterion level responding
- After criterion, targets are placed on a review list
- If a student fails to maintain criterion level responding, an intermix condition is run

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CONSTANT TIME DELAY

- If the student makes consecutive errors before the controlling prompt is provided, then the prompt delay is reduced
 - The prompt-delay is systematically increased following consecutive correct responding
 - If the student continues to make errors, then a waiting baseline is recaptured
- Progressive time delay is used to teach student to wait for controlling prompt (Waiting Baseline)

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PROGRESSIVE TIME DELAY

- PTD is similar to CTD except that the prompt delay interval gradually increases instead of remaining constant across trials
- PTD begins with 0 s delay trials.
- The prompt delay interval can be increased by inserting either equal (e.g., 1, 2, 3 s) or varying (e.g., 1, 3, 5 s) increments of time

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PROGRESSIVE TIME DELAY

- The prompt delay interval is increased after:
 - each instructional session
 - following a certain number of trials
 - when a certain number of correct responses occur
- Increasing the prompt delay interval can continue until a maximum prompt delay interval is reached (constant time delay)
 - or a response criterion is met

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PROGRESSIVE TIME DELAY

- One can decrease the prompt delay interval following student errors:
 - return to 0 s delay trials and progressively increase again
 - present one 0 s delay trial and then return to the delay interval used before the error
 - reduce the delay interval to the level used right before the student made an error

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MOST-TO-LEAST PROMPT FADING

- Also known as decreasing assistance
- Assumes student should receive high level of assistance from the outset. Systematically reduce assistance by moving down the hierarchy
 1. Controlling prompt
 2. Reduced level of assistance
 3. Verbal directive alone without prompts
- Criterion for progressing to a less intrusive level in the hierarchy will be specified
 - percent or number of prompted correct responses

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MOST-TO-LEAST PROMPT FADING

- When the student achieves criterion responding, probe trials are conducted using the next prompt level in the hierarchy
- If the student responds correctly with a less intrusive prompt, this level of assistance is provided until the student meets the criterion
 - at which time another probe is conducted
- If the student does not respond or responds incorrectly, the teacher returns to a more intrusive level in the prompt hierarchy

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MOST-TO-LEAST PROMPT FADING

- This process continues until the teacher progresses through the hierarchy or until the student is able to respond correctly to the target stimulus

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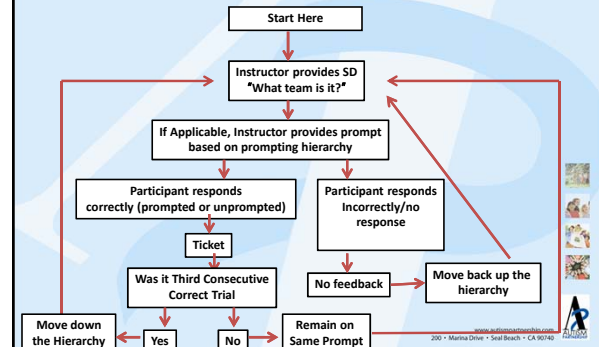


EXAMPLE OF MTL PROMPT HIERARCHY

- Full Verbal: “Patriots”
- 2-choice: “Patriots or Falcons?”
- Discriminative Stimulus: “What team is this?”

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MTL PROMPTING PROTOCOL



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PROCEDURES WHICH ALLOW ERRORS

- Least-to-Most Prompt Fading
- Flexible Prompt Fading
- Wrong-Wrong-Prompt
- Error Correction

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LEAST-TO-MOST PROMPT FADING

- Also known as system of least prompts and increasing assistance
- Prompt hierarchy needs a minimum of three levels:
 1. Target stimulus
 2. Increased level of assistance
 3. Controlling prompt
- The response interval and consequences for each student response must be determined before instruction

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LEAST-TO-MOST PROMPT FADING

- LTM procedure begins with the presentation of the task directive alone
- Prompts are only provided following a student error or if the student does not respond during the specified response interval
- This process continues until the student responds correctly or all the prompts in the hierarchy have been delivered

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LEAST-TO-MOST PROMPT FADING

- Each prompt should accompany the target stimulus (*antecedent prompt*), but can also occur after a student responds (*consequent prompt*)
- Reinforcement must follow all correct responses (prompted and unprompted)
 - differential reinforcement can also be used depending on the level of assistance provided

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FLEXIBLE PROMPT FADING

- Differs from other prompting strategies: NOT prescriptive or formula-based
- Teacher is given a procedural framework and must make decisions on a moment-to-moment basis
- It is a dynamic teaching approach that allows room for teacher discretion and use of judgment
- Does not assume learning progresses in straight line trajectory

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FLEXIBLE PROMPT FADING

- Wide Variety of Prompts May be Utilized
 - Organized into hierarchy
 - Give just enough assistance to ensure success, but never more than needed
 - Adapt to the participants ability to successfully use prompts

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FLEXIBLE PROMPT FADING

- Wide Variety of Prompts May be Utilized
 - Aim for student to average 80% correct responding over 5-10 trials
- Wide teacher discretion about when to prompt and which prompt to use

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FLEXIBLE PROMPT FADING

- The Golden Rule
 - If I do not prompt on this trial, what is the likelihood that he will get it right on his own?
 - Can you afford to miscalculate?

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FLEXIBLE PROMPT FADING

- Prompted trial should be quickly followed by retest
 - Immediately?
 - After 1-2 distractor trials?
- Prompt as a reinforcer for quality responding (effort)

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FLEXIBLE PROMPT FADING

- Fade prompts systematically
- Need to probe to evaluate readiness for reduced assistance
- Prompted trial should be quickly followed by retest
 - Immediately? After 1-2 distractor trials?
- Prompt as a reinforcer for quality responding (effort)

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FLEXIBLE PROMPT FADING

- Being correct after having made an error should be regarded as a prompted response
- Consecutive trials of the same target is also a prompted response
- Overprompting
- Enforcement prompts vs. assistive prompts

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Flexible Prompt Fading

- Being correct after having made an error is actually a prompted R.
- Consecutive trials of same target is also a prompted R

Both types of prompts need to be faded systematically

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Flexible Prompt Fading

- Prompt as reinforcer
 - factoring in behavior when deciding whether to prompt
 - be stingy with prompts if student has made an error due to inattention or off-task behavior

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NO-NO-PROMPT

- Where did the “No-No-Prompt” come from?
 - Don’t allow repeated errors
 - Do allow opportunity to learn from mistakes
- Little to No Empirical Research
- Described in
 - Teaching Receptive Language (Pelios & Sucharzewski, 2001)
 - *A Work in Progress* (Leaf & McEachin, 1999)

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NO-NO-PROMPT

- Used Clinically With Great Variation
 - Number of Stimuli
 - Magnitude of the No
 - Whether or not teaching begins with Massed Trials

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NO-NO-PROMPT

- Wrong-wrong-prompt-test makes more sense to use after there has been progress toward mastery
 - Would cause too many errors
 - Can cause prompt dependency or frustration
 - Exception: you are deliberately trying to establish trial and error learning

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NO-NO-PROMPT

- In some ways it is close to Trial and Error Learning
- However when based upon a TWO part discrimination it is a sophisticated prompting system
 - Because the No should serve as a Prompt to choose the other item

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NO-NO-PROMPT

Receptive Discrimination (field of 2):



Trial 1: "Where's the shoe?"

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NO-NO-PROMPT



Student incorrectly selects Apple

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NO-NO-PROMPT



Feedback: "No, try again"

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NO-NO-PROMPT

Receptive Discrimination (field of 2):



Trial 2: "Where's the shoe?"

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WHAT DOES THIS TELL YOU?




Student incorrectly selects Apple (again)

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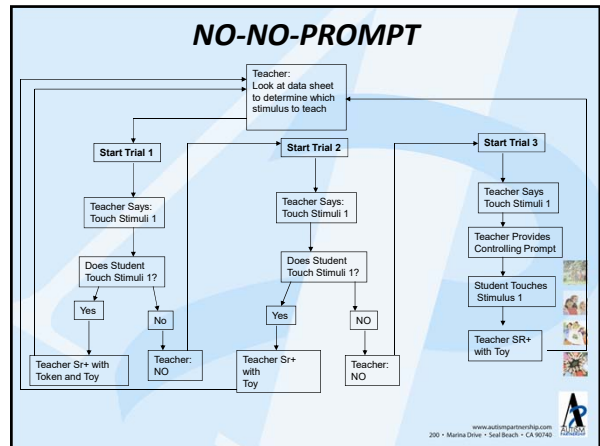


WHAT DOES THIS TELL YOU?



Student now correctly selects Apple. Was that an unprompted response?

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WHAT ABOUT A FIELD OF THREE?



Trial 1: "Where's the shoe?"

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WHAT ABOUT A FIELD OF THREE?



Student incorrectly selects Apple

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WHAT ABOUT A FIELD OF THREE?



Feedback: "No, try again"

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WHAT ABOUT A FIELD OF THREE?



Trial 2: "Where's the shoe?"

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WHAT ABOUT A FIELD OF THREE?



Trial 2: Student incorrectly selects Dog.

=====

Prompt or don't prompt on next trial?

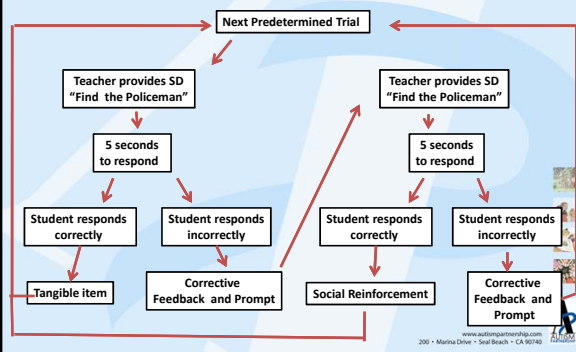
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ERROR CORRECTION STRATEGIES

- No proactive prompting
- Always begin with opportunity to perform independently
- May or may not provide Feedback
- Correction = Providing information about the correct response
- May simply be Passive Exposure or require Active Response in subsequent retrieval

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ERROR CORRECTION



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Proactive Prompting vs. Error Correction?

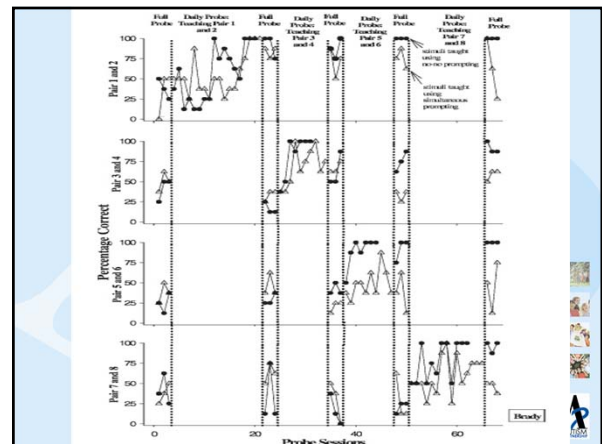
- It is a widespread belief that teaching procedures should minimize errors:
 - Error Correction should Not be Used When Teaching New Skills (e.g., Gast, 2012)
 - That Errorless Learning Is More Effective than Error Correction (e.g., Gast, 2012)
- However research does not support this practice
 - Leaf 2010 Study (NNP vs. Simultaneous)

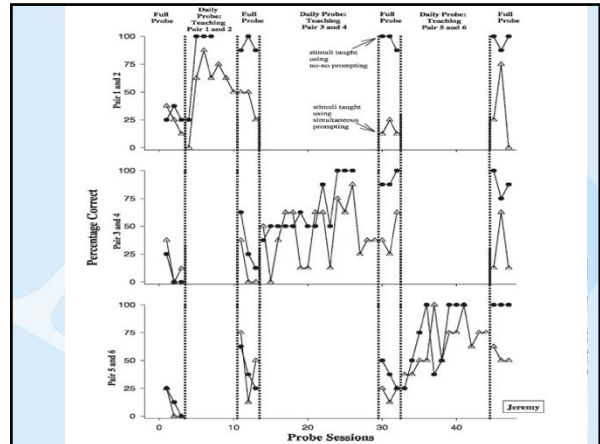
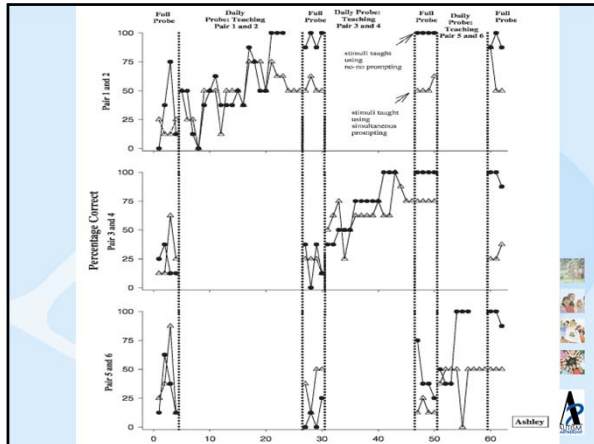
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NNP vs. SIMULTANEOUS PROMPTING: LEAF et al., 2010

Participant	Procedure	Pair 1	Pair 2	Pair 3	Pair 4
Brady	No-no prompting	1 + 3 and 2 + 8	1 + 6 and 2 + 7	2 + 3 and 1 + 9	1 + 7 and 2 + 4
	Simultaneous prompting	2 + 6 and 2 + 2	1 + 4 and 1 + 2	2 + 5 and 1 + 5	2 + 9 and 1 + 8
Ashley	No-no prompting	Baby and spoon	Banana and sock	Plate and pizza	Keys and car
	Simultaneous prompting	Cow and fork	Dog and marker	Ball and hot	Cold and hot
Jeremy	No-no prompting	Red light and green light	Baseball and golf	Sad and happy	Wake up and fall asleep
	Simultaneous prompting	Scissors and marker	Sad and happy	Wake up and fall asleep	

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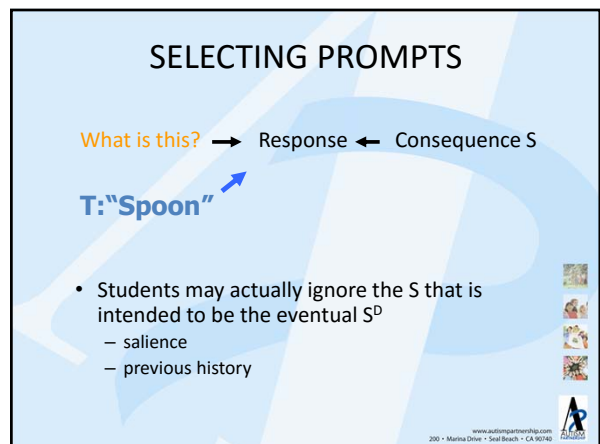


EFFICIENCY & EFFECTIVENESS OF NNP VS SP

		# of Targets Attempted	# of Targets Successful	Maint %	trials/ targ
Brady	NNP	8	8	88.0%	90.5
Ashley	NNP	6	6	96.0%	140.0
Jeremy	NNP	6	6	94.0%	60.0
Brady	CTD-0	8	2	58.0%	515.0
Ashley	CTD-0	6	0	55.0%	>374
Jeremy	CTD-0	6	0	36.0%	>175

- ### EXPANDING TRIALS
- Learning new vocabulary is a memory task
 - Strengthening memory requires repeated recall
 - Immediate recall is very easy
 - 0:00 T: "What is this?" (shows spoon)
 - 0:02 T: "Spoon"
 - 0:04 S: "Spoon"
 - 0:05 T: "right"
 - 0:10 T: "What is this?" (shows spoon)
 - 0:12 S: "Spoon"

- ### EXPANDING TRIALS
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 - 0:05 T: "right"
 - 0:10 T: "What is this?" (shows spoon)
 - 0:12 S: "Spoon"



EXPANDING TRIALS

- Increase delay between opportunities to practice skill
- Increase distracting or interfering activity during the delay interval

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EXPANDING TRIALS

	SD	Prompt	R	Feedback	ITI
Trial 1	"What is this?"	"Spoon"	"Spoon"	"Right"	
					5 secs
Trial 2	"What is this?"		"Spoon"	"Right"	

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EXPANDING TRIALS

	SD	Prompt	R	Feedback	ITI
Trial 1	"What is this?"	"Spoon"	"Spoon"	"Right"	
					1 min.
Trial 2	"What is this?"		"Spoon"	"Right"	

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EXPANDING TRIALS

	SD	Prompt	R	Feedback	ITI
Trial 1	"What is this?"	"Spoon"	"Spoon"	"Right"	
Trials 2-7					
Trial 8	"What is this?"		"Spoon"	"Right"	

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EXPANDING TRIALS

- Short term memory 15-30 secs. without rehearsal
- Rehearsal keeps memory alive and moves information into long term memory
- Recall is easy over short duration
- Learning is optimal when recall occurs at the brink of forgetting

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EXPANDING TRIALS

- Ease of recall (and likelihood of success) is affected by
 - Duration since last recall
 - Interfering mental activity
- Expanding trials is systematic approach to fading trace prompts
 - Target
 - Distractor
- Degree of expansion

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EXPANDING TRIALS

- Degree of expansion
 - T = Target
 - D = Distractor (e.g. previously mastered target)

TRIALS								Degree of Expansion
1	2	3	4	5	6	7	8	
T	T							E0
T	D	T						E1
T	D	D	D	T				E3
T	D	D	D	D	D	T		E5

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How do we know which procedures we should be using?

A Better Question . . .

- How do we know:
 - Which procedures
 - With which students
 - For teaching which skills

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Measuring Advantages and Disadvantages of Procedures

- Fewer trials to mastery
- Shorter time to mastery
- Easier to implement
- Easier to train
- Teacher preference
- Fewer errors during acquisition????

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Measuring Advantages and Disadvantages of Procedures

- Higher occurrence of positive side effects
 - Learning to learn
 - ability to learn from trial and error
 - Can use process of elimination

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Measuring Advantages and Disadvantages of Procedures

- Higher occurrence of positive side effects
 - Visual attention, scanning entire field
 - Self-directed, sustained on task behavior
 - Higher level of affective engagement

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Measuring Advantages and Disadvantages of Procedures


- Lower occurrence of negative side effects
 - Reduction of off-task and disruptive behavior
 - prompt dependency?



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Measuring Advantages and Disadvantages of Procedures


- Fewer errors during acquisition may be a redundant measure
 - If time to mastery is not longer, then this is only an issue if there are negative side effects
 - Sometimes errors are good
 - can learn more from an error than correct R
 - helps determine maximum acquisition curve



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QUEST FOR EFFICIENCY


	Instructor Prompts	No prompt
Student can perform target		
Cannot perform		



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QUEST FOR EFFICIENCY


	Instructor Prompts	No prompt
Student can perform target	OVERPROMPTING Advantage to Error correction **	
Cannot perform		



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QUEST FOR EFFICIENCY


	Instructor Prompts	No prompt
Student can perform target	OVERPROMPTING Advantage to Error correction **	
Cannot perform		UNDERPROMPTING Advantage to errorless



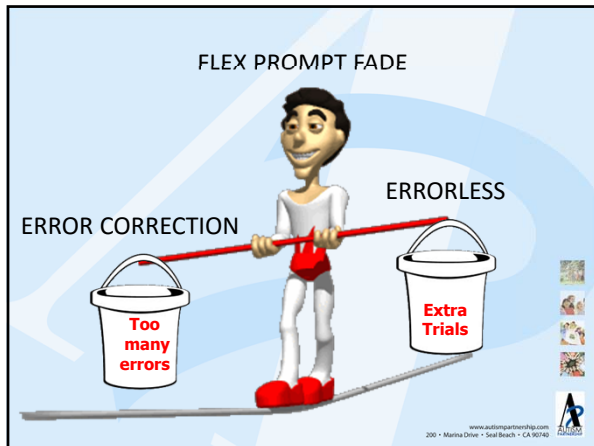
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QUEST FOR EFFICIENCY

	Instructor Prompts	No prompt
Student can perform target	OVERPROMPTING Advantage to Error correction **	MOST EFFICIENT
Cannot perform	MOST EFFICIENT	UNDERPROMPTING Advantage to errorless

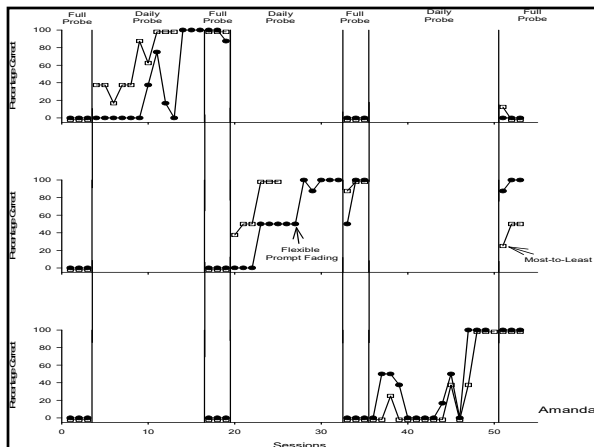
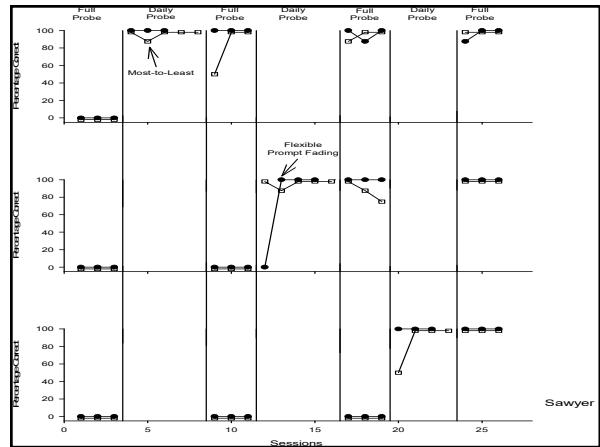
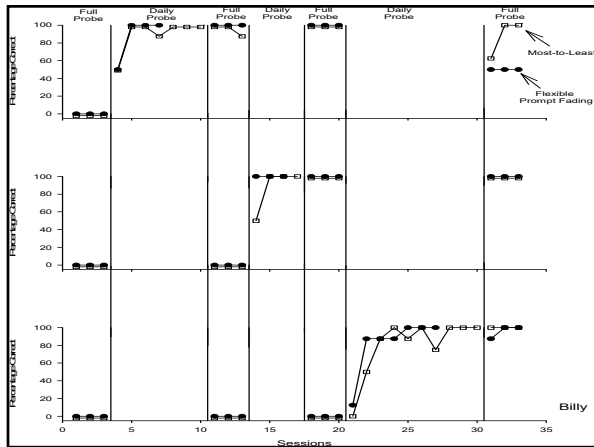


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TARGETED SKILLS: EXPRESSIVE LABELING

Participants Name	Targets for Most-to-Least	Targets for Flexible Prompt Fading
Billy	Notre Dame & Colts Timberwolves & Diamondbacks Orioles & Tennessee Volunteers	White Sox's & Bluejays Broncos & Marlins Twins & Grizzlies
Sawyer	Alfred & Riddler Jaba the Hut & Chewbacca Cyclopes & Magneto	Penguin & Poison Ivy Darth Maul & The Emperor Wolverine & Storm
Amanda	Marlene & King Julian Skeeter & Brain Angelica & Grimm	Mort & Maurice Buford & Roger Waffle & Dexter



Efficiency FPF vs MTL

Participant	Total Number of Sessions FPF	Total Number of Sessions MTL	Total Number of Teaching Trials FPF	Total Number of Teaching Trials MTL	Total Amount of Time FPF	Total Amount of Time MTL
BILLY	14	21	253	379	34 min.	57 min.
SAWYER	10	14	180	252	26 min.	37 min.
AMANDA	40	31	720	558	84 min.	73 min.

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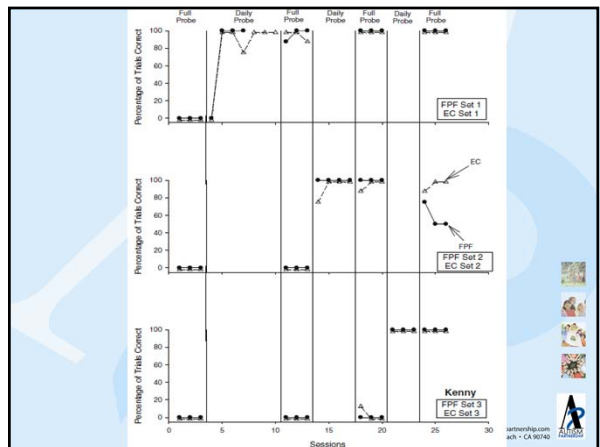
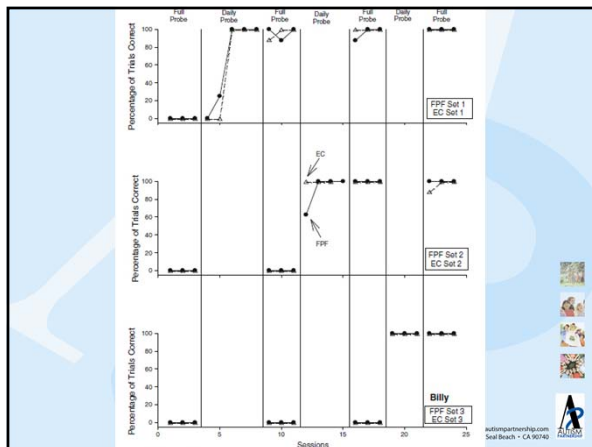
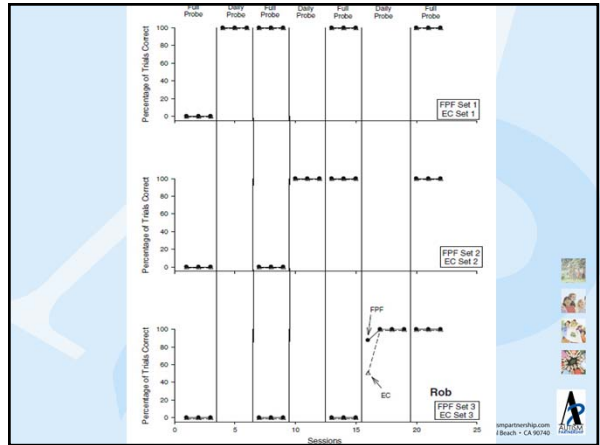
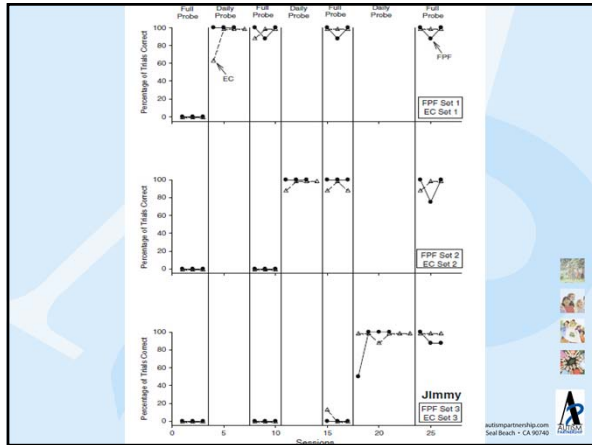
QUEST FOR EFFICIENCY

	MTL	EC	FPF
JL n=3	1	--	2
LD n=4	--		
AA n=4			--

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Targeted Skills: Muppet Characters Expressive

Participants Name	Targets for FPF	Targets for Error Correction
Jimmy	Scooter & Honeydew Sweetums & Camilla Floyd & Lew	Beaker & Janice Rizzo & Sam Dr. Teeth & Animal
Rob	Beaker & Janice Lew & Sweetums Dr. Teeth & Zoot	Scooter & Honeydew Rizzo & Sam Camilla & Floyd
Billy	Beaker & Janice Rizzo & Pepe Dr. Teeth & Zoot	Scooter & Honeydew Sweetums & Camilla Floyd & Lew
Kenny	Fozzie & Woldorf Zoot & Lew Dr. Teeth & Statler	Sweetums & Camilla Rowlf & Floyd Rizzo & Sam



FPF vs EC

J Dev Phys Disabil (2014) 26:203–224

219

Table 2 Efficiency data

Participant	Total number of sessions (FPF)	Total number of sessions (EC)	Total number of trials (FPF)	Total number of trials (EC)	Total amount of time (FPF) Min & sec	Total amount of time (EC) Min & sec
Jimmy	10	14	200	280	67:16	89:51
Rob	10	10	200	200	66:19	69:22
Billy	12	11	240	220	83:38	82:44
Kenny	11	14	220	280	93:20	130:12
Across all participants	43	49	860	980	310:33	368:08

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Efficiency FPF vs EC

Participant	Total Number of Sessions FPF	Total Number of Sessions EC	Total Number of Teaching Trials FPF	Total Number of Teaching Trials EC	Total Amount of Time FPF	Total Amount of Time EC
JIMMY	10	14	200	280	67:16	89:51
ROB	10	10	200	200	66:19	69:22
BILLY	12	11	240	220	83:38	82:44
KENNY	11	14	220	280	93:20	130:12

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QUEST FOR EFFICIENCY

	MTL	EC	FPF
JL n=3	1	--	2
LD n=4	--	1	3
AA n=4			--

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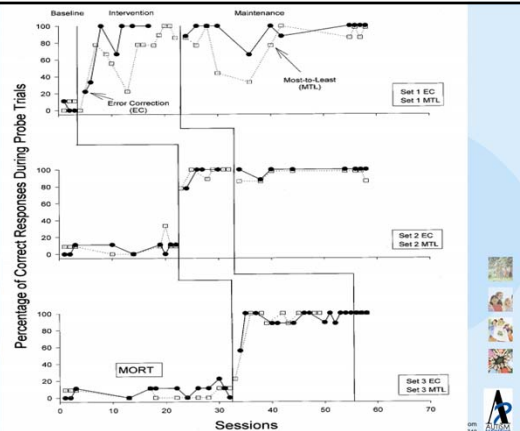


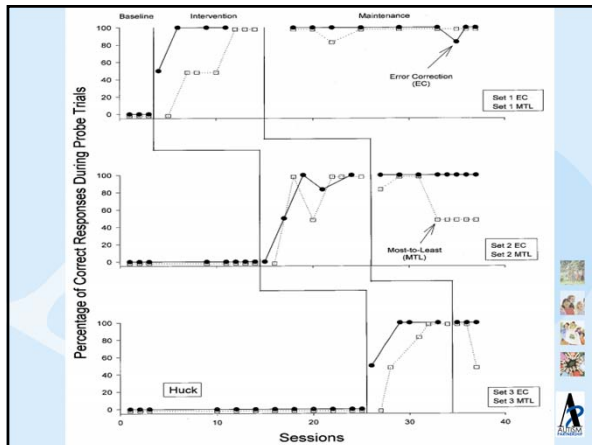
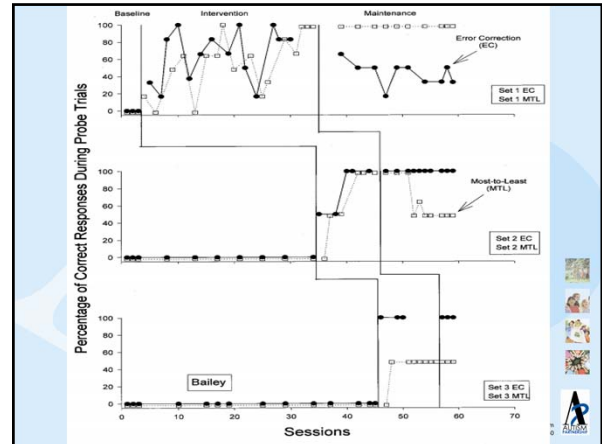
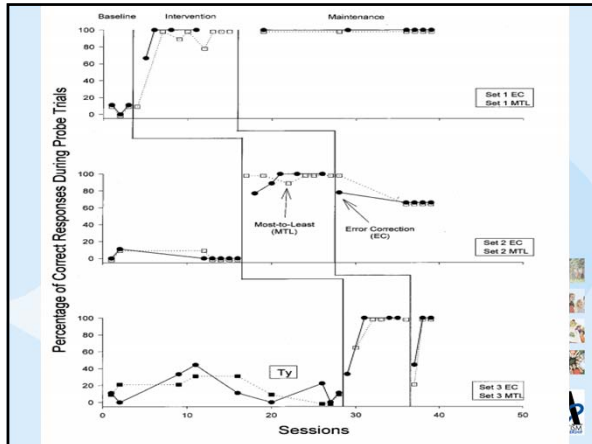
Targeted Skills

Participants Name	Type of Skill	Targets for Error Correction	Targets for Most-to-Least
Mort	Receptive	3 Muppet Characters 3 Shrek Characters 3 Toy Story Characters	3 Muppet Characters 3 Shrek Characters 3 Toy Story Characters
Ty	Receptive	3 Actions 3 Locations 3 Community Helper	3 Actions 3 Locations 3 Community Helper
Bailey	Expressive	2 Cars Characters 2 Muppet Characters 2 Toy Story Characters	2 Cars Characters 2 Muppet Characters 2 Toy Story Characters
Huck	Expressive	2 Batman Characters 2 Comic Book Characters 2 Comic Book Characters	2 Batman Characters 2 Comic Book Characters 2 Comic Book Characters

Efficiency

Group	Total Number of Sessions EC	Total Number of Sessions MTL	Total Number of Teaching Trials EC	Total Number of Teaching Trials MTL	Total Amount of Time EC	Total Amount of Time MTL
MORT	28	25	504	450	238:29	230:00
TY	13	18	234	324	108:58	156:16
BAILEY	18	32	396	576	191:08	352:40
HUCK	13	18	234	324	77:55	130:45





Efficiency EC vs MTL

Participant	Total Number of Sessions EC	Total Number of Sessions MTL	Total Number of Teaching Trials EC	Total Number of Teaching Trials MTL	Total Amount of Time EC	Total Amount of Time MTL
MORT	28	25	504	450	238:29	230:00
TY	13	18	234	324	108:58	156:16
BAILEY	18	32	396	576	191:08	352:40
HUCK	13	18	234	324	77:55	130:45

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QUEST FOR EFFICIENCY

	MTL	EC	FPF
JL n=3	1	--	2
LD n=4	--	1	3
AA n=4	1	3	--
	2/7 29%	4/8 50%	5/7 71%

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DID YOU REALLY REMOVE THE UNWANTED PROMPT?


Receptive discrimination task:

"Find banana"

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DID YOU REALLY REMOVE THE UNWANTED PROMPT?

Receptive discrimination task:



Student Points to Middle Picture

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DID YOU REALLY REMOVE THE UNWANTED PROMPT?

Receptive discrimination task:



Instructor scrambles field

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DID YOU REALLY REMOVE THE UNWANTED PROMPT?

Receptive discrimination task:




"Find banana"

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DID YOU REALLY REMOVE THE UNWANTED PROMPT?

Receptive discrimination task:



Student Points to Middle Picture

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WHAT ARE YOU REALLY TEACHING?

Spell your name using location prompt

A N I E L
D _ _ _ _

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WHAT ARE YOU REALLY TEACHING?

- Mass trials for teaching receptive labels
 - If you can say "blah, blah, blah" and the student makes correct R . . .
- Two step receptive out of chair:
 - if student makes a mistake, prompting him through will not help him learn to remember
 - teach him to verbally direct himself through the steps

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WHAT ARE YOU REALLY TEACHING?

Two item object retrieval (field of 2):



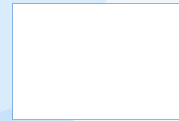
“Get the shoe and the apple”

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WHAT ARE YOU REALLY TEACHING?

Compose quantity with exact field prompt:



“Make it three”

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WHAT ARE YOU REALLY TEACHING?

- Object manipulation NVI with only one object or only one action



– “do what you’re supposed to do” would work equally well as SD

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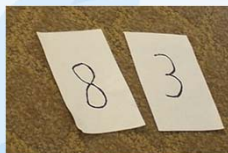
TASK SEQUENCING VS. CONTROLLING PROMPTS

- Leading students to discover the concept you are trying to teach
- Controlling prompts do not assure this
- May be able to conduct rational analysis of task
- Otherwise dependent on trial and error testing

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TASK SEQUENCING VS. CONTROLLING PROMPTS



“Which number is bigger?”

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TASK SEQUENCING VS. CONTROLLING PROMPTS



“Put these in order”

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TASK SEQUENCING VS. CONTROLLING PROMPTS

"Which is biggest?" "Which is smallest?"

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TASK SEQUENCING VS. CONTROLLING PROMPTS

"Put these in order"

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TASK SEQUENCING VS. CONTROLLING PROMPTS

"Which is smallest?"

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TASK SEQUENCING VS. CONTROLLING PROMPTS

"Put these in order" "Which one is bigger?"

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