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# PROMOTING THE GENERALIZATION AND MAINTENANCE OF NEWLY LEARNED SKILLS

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William L. Heward, Ed.D., BCBA-D

Eldar ABA Studies - Tel Aviv, Israel

June 16, 2016



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# OUTLINE

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- Importance of generalization & maintenance (G&M)
- 3 basic types of generalized learning outcomes
- Concepts essential to understanding G&M
- Obstacles to G&M
- Five guiding principles for promoting G&M
- Five strategic approaches for promoting G&M



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# WHAT DO FAILURES TO G&M LOOK LIKE?

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- Nata's mother taught her how to set out plates, cutlery, and glasses for dinner. One week later, Nata makes many mistakes when setting the table.



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# WHAT DO FAILURES TO G&M LOOK LIKE?

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- In spite of his long history of distractibility and poor endurance, Shai had learned to work independently for several hours at a time in the copy room at the vocational training center. This enabled Shai to get a job working as a copy machine operator in a downtown business office. However, his employer is complaining that Shai frequently stops working after a few minutes to seek attention from others. Shai may soon lose his job.



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# WHAT DO FAILURES TO G&M LOOK LIKE?

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- Zev is a 10-year-old boy with autism. To meet an objective on his IEP that targets functional language and communication skills, Zev's teacher taught him to say, "Hello, how are you?" as a greeting. Now, whenever Zev meets anyone, he invariably responds with, "Hello, how are you?" Zev's parents are concerned that their son's language seems stilted and parrot-like.



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# WHAT'S THE PROBLEM?

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- Nata is no longer using a previously learned skill.
- Shai is not using a skill he learned in one setting (the vocational training center) in a different setting (the job site).
- Zee greets people with the exact behaviors he was taught, even though other similar responses are also desirable.



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# WHAT CAN WE DO ABOUT G&M FAILURES?

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- We can lament.
- We can blame a real or presumed inherent trait of the student.
- We can blame something or someone in the setting where the student is failing.
- But the only useful thing to do is teach in a way that increases the likelihood the learner will generalize and maintain the new skill.



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# GENERALIZED BEHAVIOR CHANGE (BAER, WOLF, & RISLEY, 1968)

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- The new behavior must prove durable over time.
- Nata continues to set the table correctly 3 weeks (or months, or years) after her mother's instruction end.
- Two years ago, Mohammed was taught how to use the pronunciation symbols in the dictionary. Today, he can still look up an unknown word and pronounce it correctly the first time.



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# GENERALIZED BEHAVIOR CHANGE (BAER, WOLF, & RISLEY, 1968)

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- The new behavior must appear in settings/situations that are different from the training setting/situation.
- Shai works as independently in his new job downtown as he did at the vocational training center where instruction focused on increasing his independence.
- Judy's participation in the regular education classroom increased when her resource room teacher was there to provide support in the form of prompts and reinforcing smiles. Judy continues to participate in the regular classroom even though the special education teacher is no longer in the room.



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# GENERALIZED BEHAVIOR CHANGE (BAER, WOLF, & RISLEY, 1968)

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- Functionally equivalent behaviors that were not taught directly must be emitted.
- Zev begins greeting people with “Hi, how’s it going?” and “Hello (name), nice to see you again.”
- Matthew was taught two ways to ask a teacher for assistance. Later, he is observed using four different types of assistance-seeking behavior.

Functionally equivalent behaviors have the same effect on the environment, but are different from one another in terms of topography and/or magnitude.



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# THREE TYPES OF GENERALIZED OUTCOMES

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- Response maintenance - the learner continues to perform the target behavior after a portion or all of the intervention has been terminated.
- Sometimes called: maintenance, durability, behavioral persistence, “resistance to extinction”



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# THREE TYPES OF GENERALIZED OUTCOMES

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- Setting/situation generalization - the learner performs the target behavior in the presence of stimulus conditions different from the stimuli present during training
  - Sometimes called: stimulus generalization, transfer of training, and generalization



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# THREE TYPES OF GENERALIZED OUTCOMES

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- Response generalization - the learner performs functionally equivalent responses in addition to the target behavior(s) directly trained.
- Sometimes called: concurrent, collateral, or concomitant behavior change; creativity



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# INSTRUCTIONAL SETTING

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- The physical setting or place in which instruction is delivered and all aspects of that setting and situation that may influence the learner's performance (e.g., materials, people).
- The instructional setting includes both planned and unplanned elements of the setting and situation in which teaching is conducted.



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# BOTH PLANNED AND UNPLANNED ELEMENTS OF THE INSTRUCTIONAL SETTING/SITUATION CAN PROMOTE OR IMPEDE TO OCCURRENCE OF GENERALIZATION.

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- Planned elements: things the teacher programs in an effort to promote generalization.
  - The math problems selected for a lesson.
  - The format of those problems.
- Unplanned elements: things the teacher is not aware of or has not considered that might affect generalization.
  - The phrase, “how much” acquires stimulus control for adding the numbers in any word problem, even when another arithmetic operation is needed to solve the problem (e.g., “Steven earned how much more than Marilyn?”)



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# GENERALIZATION SETTING

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- Any place or stimulus situation that is different from the instructional setting in any meaningful way and where performance of the target behavior is desirable.



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# EXAMPLES OF INSTRUCTIONAL & RELEVANT GENERALIZATION SETTINGS

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## Instructional Setting

- Working independently in special education resource room
- Conversational skills practice in school
- Job coach teaches new employee how to operate package sealer at job site
- Passing drills during practice
- Vertical format math problems
- Story problems with no distracter numbers

## Generalization Setting

- Working independently in regular classroom
- Talking with friends in town
- New employee operating package sealer when job coach is gone
- Passing during a game
- Horizontal format math problems
- Story problems with distracter numbers



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# A GENERALIZATION SETTING IS NOT NECESSARILY ANOTHER PLACE

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- Do not think that a generalization setting must be some place other than the physical location where instruction occurred.
- Learners often receive instruction in the same place where they need to maintain and generalize what they learned.
- Instructional and generalization settings can, and often do, share the same place.



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# STIMULUS CONTROL

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- Is demonstrated when the presence or absence of a stimulus—or a change in some feature or dimension of a stimulus, such as its color, position, or loudness—produces a reliable change in some measurable dimension (such as frequency) of a behavior.
- A stimulus acquires control over behavior when it is correlated with an increased frequency or probability of reinforcement.



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# STIMULUS GENERALIZATION

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- When a response is reinforced in the presence of a particular stimulus, there is an increased tendency for that response to be emitted in the presence of stimuli that share similar physical properties or have been associated with the original stimulus.



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# DISCRIMINATION

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.. behavior is emitted in the presence of a given stimulus and not emitted in the presence of other stimuli.

- We pick up the phone only when it is ringing

We make sitting responses in the presence of objects sharing the critical features of “chairness”

- We write the number “4” in response to “2+2” and “7-3” but not to the problem “2+3”
- Essentially, discrimination is the opposite of stimulus generalization



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# A RESPONSE CLASS IS ..

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- a set of functionally equivalent but different (by topography or magnitude) responses
- Each member of a response class shares two characteristics with every other member. Each response in the class (1) produces the same consequence or effect on the environment, and (2) is influenced by the same motivating operations and stimulus controls.



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# RESPONSE CLASS EXAMPLES

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- Different ways of writing your name
- Different ways of sitting on a chair
- Different ways of writing a number (e.g. 4, four, IIII, IV, iv)
- Different ways of peeling an orange.



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# GENERALIZATION IS NOT ALWAYS DESIRABLE

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- Overgeneralization: The learner emits the target behavior under stimulus conditions that are similar to the instructional setting or situation, but are inappropriate occasions for the behavior.
  - Child says “doggie” in the presence of any four-legged, furry animal.
  - Sharon repeatedly says hello to everyone, including people she just greeted.



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# GENERALIZATION IS NOT ALWAYS DESIRABLE

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- Faulty stimulus control: target behavior comes under control of an irrelevant stimulus.
- A student is taught to use addition to solve story problems such as, “Mary has 3 candies. Amy has 5 candies. How many candies do they have in all?” The student then adds the numerals in any problem that includes the words “in all” (e.g., “Mary and Amy have 8 candies in all. Mary has 3 candies. How many candies does Amy have?”).



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- George's job coach taught him how to ride the public bus to and from work by accompanying him and providing praise and feedback for his correct responses. Six months later, George is riding the bus to and from work without assistance from anyone.

Response maintenance (8)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- Carrie was taught to solve addition and subtraction problems presented to her in a vertical format. Now when she is given with an addition or subtraction problem that is formatted horizontally, Carrie doesn't know what to do.

Setting/situation generalization  
(5, 5, 10)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- Joyce is taught to obtain assistance from her supervisor on the assembly line by calling out "Ms. Johnson, I need some help." Although she was never taught to do so, Joyce is observed to use a hand-waving response to signal for her supervisor's help when the production line is very noisy.

Response generalization  
(7, 10)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- Steven has been practicing his “4 x n” multiplication facts using flash cards. When a classmate presents the flash cards to Steven, he responds accurately to every math fact. Ms. Jones gave Steven a pencil-and-paper quiz containing ten “4 x n” math facts. When she graded Steven’s quiz, she was disappointed to see that Steven correctly answered only 3 of the 10 multiplication facts. This situation is a lack of what generalized outcome?

Setting/situation generalization  
(4, 5, 6)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- First-year math teacher Mr. Harper has begun using a fluency building activity with his students. Each day, he gives his students a sheet of math facts, sets a timer for 1 minute, and tells his students to write the answer to as many math facts as they can before the timer sounds. Mr. Harper uses the same sheet of math facts day after day. Which generalized outcome is he failing to plan for?

Setting/situation generalization  
(4, 5, 6)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- Julie was taught to drink from a straw and then a sippy cup. One day Julie's mom notices she was drinking from the side of the cup.

Response generalization  
(10)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- Ms. Peleg successfully taught parents of a toddler how to use a script to increase the frequency of language interactions their child during meals and bath time. Three months later the parents no longer use the script but provide the same frequency of language interactions they did when using it.

Response maintenance  
(1, 7, 9)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- Bob was taught to keyboard fluently on a standard typewriter. He types fluently on a variety of keyboards including computer keyboards and mobile device keyboards such as iPads.

Setting/situation generalization  
(2, 6, 8)



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# WHICH TYPE OF GENERALIZED OUTCOME?

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- Dave, a child with autism, was taught to use a picture exchange system (PECS). One of the first cards he learned to use was the card for cracker. Whenever he gave the cracker card to a member of his family, that person would say “Cracker” and give him an animal cracker. After a few weeks, Dave handed his mother the cracker card and said “Cracker.”

Response generalization  
(2, 6, 9)



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# OBSTACLES TO THE GENERALIZATION AND MAINTENANCE OF NEWLY LEARNED BEHAVIOR

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- Behavior learned in one setting/situation may not be emitted in other settings/situations. In other words, the new knowledge or skill may not appear setting/situation generalization in the first place.
- Newly acquired behavior that is emitted in the generalization environment may not be reinforced.
- The target behavior may be emitted at a very low rate in the generalization setting, because more reinforcing contingencies are in effect for competing behaviors.
- The target behavior might be punished in the generalization setting.



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# THEREFORE, WHEN IT COMES TO THE GENERALIZATION OF NEW BEHAVIOR, YOU ..

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.. have least 4 things to worry about—or, better yet, to plan and teach for:

- promoting the initial appearance of the behavior in the generalization environment
- making sure the new behavior gets reinforced when it does appear
- overcoming competition from other behaviors
- dealing with the possibility that the new behavior will be punished



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# FIVE GUIDING PRINCIPLES

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- I. Reduce the need for generalization as much as possible
  - Prioritize the settings in which the learner most often functions now.
  - Consider also the environments in which the learner will likely live in the near future and later in life.
  - Prioritize the knowledge and skills that will most often be required of the learner in those environments.
  - Teach the most important skill-setting-situation combinations directly and first.



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# FIVE GUIDING PRINCIPLES

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2. Probe for generalized outcomes before, during, and after instruction.
  - generalization probe: **an objective assessment of the learner's use of the target behavior in the generalization setting**
  - Example: A teacher assesses the extent to which a student has generalized the skill of solving two-digit minus two-digit arithmetic problems by presenting him with a set of problems of the same type but for which he's not received instruction or guided practice.



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# GENERALIZATION PROBES

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- Probing can often be made more efficient by contriving opportunities for the learner to use her new knowledge or skill
- Instead of waiting for (and perhaps missing) naturally occurring opportunities for the learner to use her new conversational skills in the generalization environment, enlist the assistance of a “confederate” peer to approach the learner.



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# GENERALIZATION PROBES

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## Probing before instruction ...

- might reveal that the learner already performs some or all of the needed behaviors in the generalization setting, thereby lessening the teaching task.
- is the only objective way to know if the learner's performance of the target behavior after instruction is truly a generalized outcome.
- enables observation of the contingencies operating in the generalization setting.



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# GENERALIZATION PROBES

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## Probing during instruction ...

- shows if and when generalization has occurred and instruction can be terminated or shifted in focus.
- shows if generalization is not occurring, indicating that a change in instructional strategies is needed.
- provides evidence of the existence and extent of response maintenance.



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# FIVE GUIDING PRINCIPLES

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- 3. Involve significant others.
  - Teaching for generalized outcomes is a big job. Recognize that you need help and try to get as much help as you can.
  - People are almost always around where and when important behaviors need to be prompted and reinforced.



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# FIVE GUIDING PRINCIPLES

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- Take a systematic approach to involving others.
  - 1. Identify significant others (e.g., teachers, employers, parents, family members, peers, neighbors, teammates, bus drivers, cashiers).
  - 2. Determine if and how they can help.
  - 3. Ask them to help. Be specific with request.
  - 4. Show your appreciation (better yet, have the students thank them if possible).



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# FIVE GUIDING PRINCIPLES

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- Use less intrusive and less costly tactics to promote generalization before using more intrusive and costly tactics.
- Example .. If a student can solve untaught examples of a type of algebra equation after instruction on just two examples, ending instruction on that type of equation would be less costly than continuing to teach additional examples.



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# FIVE GUIDING PRINCIPLES

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- Use less intrusive and less costly tactics to promote generalization before using more intrusive and costly tactics.
- If a student can solve untaught examples of a type of algebra equation after instruction on just two examples, ending instruction on that type of equation would be less costly than continuing to teach additional examples.
- If incorporating some relevant features of the generalization setting into the instructional setting produces the desired generalization, doing so would be less costly than conducting instruction in the generalization setting.



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# FIVE GUIDING PRINCIPLES

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- 5. Contrive instruction and generalization tactics as much as necessary to enable the learner to acquire, maintain and generalize critical knowledge and skills.
  - If necessary, throw Guiding Principle #4 out the window. Don't be so concerned about intrusiveness that you fail to implement a potentially effective intervention.
  - Don't give up the idea of teaching a student how to do something important because the student is unlikely to achieve total independence. Consider prosthetic aides (e.g., cue cards) and partial participation (e.g., performing some steps).



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# FIVE GUIDING PRINCIPLES:

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- 1. Reduce the need for generalization as much as possible.
- 2. Probe for generalized outcomes before, during, and after instruction.
- 3. Involve significant others in your generalization plan whenever possible.
- 4. Use less intrusive and less costly tactics to promote generalization before using more intrusive and costly tactics.
- 5. Contrive instruction and generalization tactics as much as needed to give the learner maximum success in the generalization setting(s).



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# STRATEGIES FOR PROMOTING GENERALIZED OUTCOMES

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- Aim for Natural Contingencies of Reinforcement
- Teach Enough Examples
- Program Common Stimuli
- Program Indiscriminable Contingencies
- Teach Self-Management Skills



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# AIM FOR NATURAL CONTINGENCIES OF REINFORCEMENT

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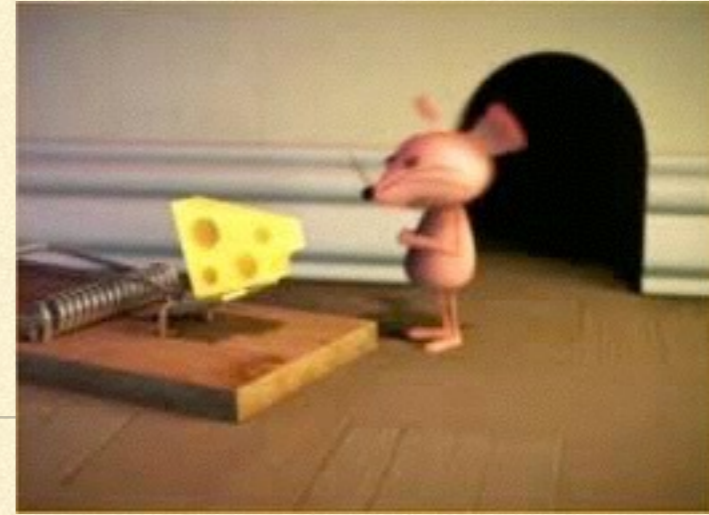
- Target age-appropriate behaviors needed/useful in everyday life
- Use intermittent reinforcement in training to build fluency and persistence
- Contrive reinforcement in generalization setting(s)
- Set behavior traps
- Teach learner to recruit reinforcement



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# BEHAVIOR TRAPS

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The essence of a trap, in behavioral terms, is that only a relatively simple response is necessary to enter the trap, yet once entered, the trap cannot be resisted in creating general behavior change. For the mouse, the entry response is merely to smell the cheese.

Everything proceeds from there almost automatically: The householder need not have more control over the mouse's behavior than to get him to smell the cheese, yet he accomplishes thorough change in behavior.

- D. M. Baer and M. M. Wolf (1970, p. 231)



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# BEHAVIOR TRAPS: FOUR DEFINING FEATURES

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- They are “baited” with powerful, virtually irresistible reinforcers that “lure” the student into the trap.
- To enter the trap, only a low-effort response already in the student’s repertoire is necessary.
- Once inside, interrelated contingencies of reinforcement motivate the student to acquire, extend, and maintain targeted academic and/or social skills.
- Can remain effective over a long period of time because the student shows relatively little, if any, satiation effects.



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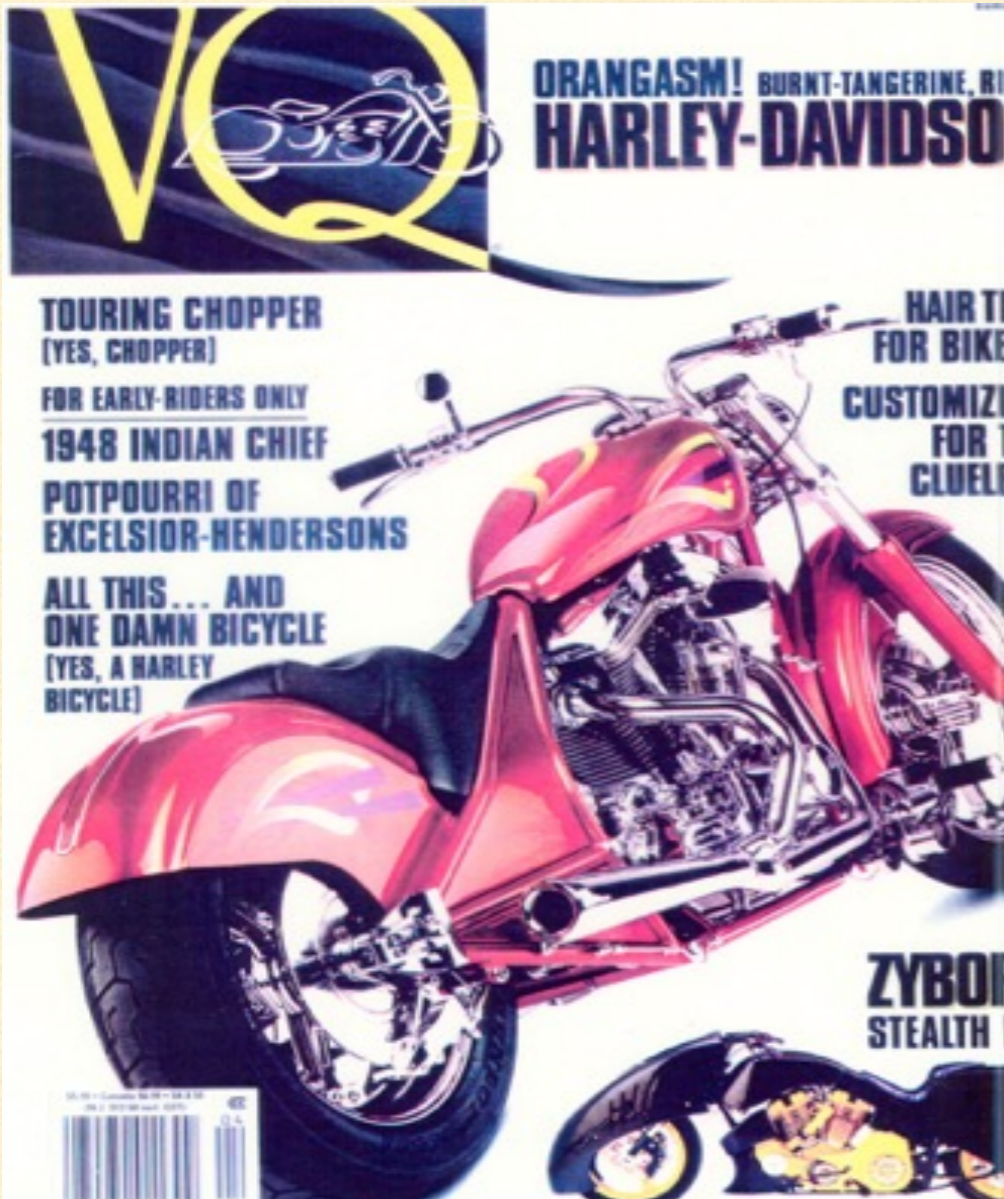
# STEP 1: FIND SOME POWERFUL BAIT

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- What does the student “always” do when left alone?
- Ask the student what he/she likes.
- Ask the student’s parents and/or peers.
- Observe the student’s disruptive behaviors.
- Provide a variety of activities the student can sample.

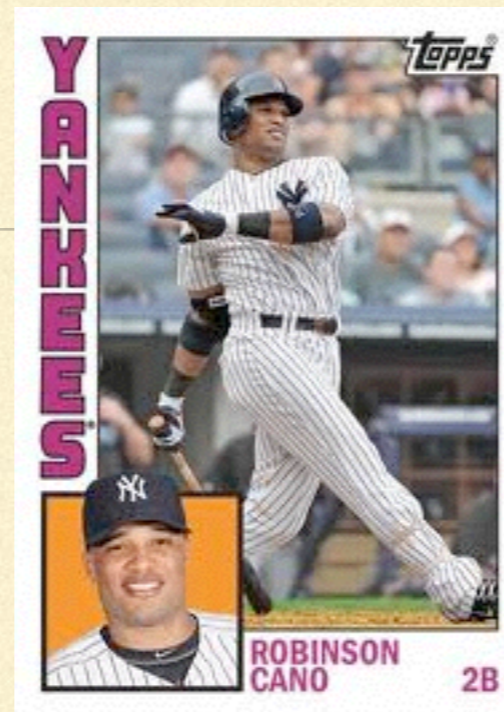
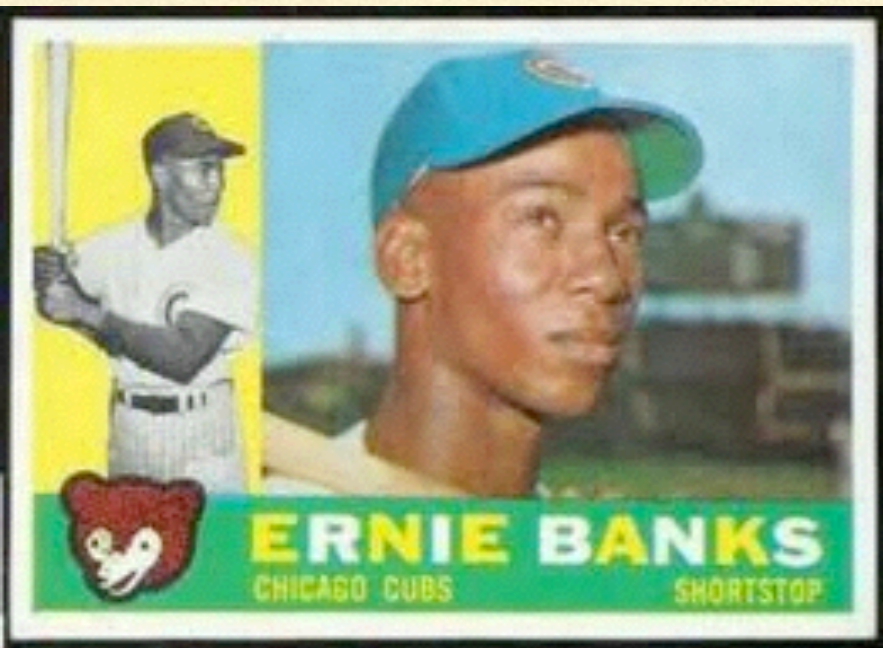








# CARLOS AND HIS BASEBALL CARDS



**80 DARRYL STRAWBERRY**

HT: 6'0" WT: 190 BATS: LEFT THROWS: LEFT DRAFT: METS #1-JUNE, 1988  
 AG: VIA DRAFT BORN: 9-12-62; LOS ANGELES, CALIF. HOME: LOS ANGELES, CALIF.

**COMPLETE MAJOR AND MINOR LEAGUE BATTING RECORD**

YR CLUB	G	AB	R	H	2B	3B	HR	RBI	SB	SLG	OBP	AVG
80 BRUSARD	44	151	27	42	5	2	3	29	5	.420	.28	.288
81 LYNCHBURG	129	425	84	107	22	5	7	78	31	.557	.32	.285
82 JACKSON	129	435	93	123	19	5	34	97	45	.600	.36	.283
83 TIDEWATER	19	57	12	15	4	1	3	13	7	.558	.34	.283
83 METS	122	420	82	109	15	7	25	74	19	.512	.31	.257
84 METS	167	522	75	131	27	4	28	97	27	.487	.32	.251
85 METS	171	500	78	105	15	4	25	79	28	.557	.32	.277
<b>MAJ LEA TOTALS</b>	<b>380</b>	<b>1235</b>	<b>276</b>	<b>348</b>	<b>97</b>	<b>15</b>	<b>91</b>	<b>256</b>	<b>72</b>	<b>.508</b>	<b>.32</b>	<b>.261</b>

GW-RBI (1988): 5 GW-RBI (CAREER): 27

**TALKIN' BASEBALL** THE FIRST PLAYER IN METS HISTORY TO BE TRADED FOR HIMSELF WAS HARRY CHITI FROM INDIANS 4-27-62 AND RETURNED 8-15-62.

**INDIANS** **1968 ROOKIE STARS**

**LOU PINIELLA • OF** **R. SCHEINBLUM • OF**

**TREVOR HOFFMAN**

MILWAUKEE BREWERS™ • PITCHER

HT: 6'0" WT: 220 THROWS: RIGHT BATS: RIGHT DRAFTED: REDS #11-JUNE, 1980  
 AG: FREE AGENT 1-8-89 BORN: 10-13-67; BELLFLOWER, CA HOME: ANAHEIM, CA

**COMPLETE MAJOR LEAGUE PITCHING RECORD** LEAGUE LEADER IN ITALICS, TIE

YR CLUB	G	W	L	IP	H	R	ER	RB	SO	CG	SHO	SV	WHIP	ERA
93 MARLINS	28	2	2	35.2	24	13	13	19	26	0	0	2	1.21	3.28
93 PADRES	39	2	4	54.1	56	30	26	20	53	0	0	3	1.40	4.31
94 PADRES	47	4	4	56	39	16	16	20	88	0	0	20	1.05	2.57
95 PADRES	55	7	4	53.1	48	25	23	14	52	0	0	31	1.16	3.88
96 PADRES	70	9	5	88	50	23	22	31	111	0	0	42	0.92	2.25
97 PADRES	70	6	4	81.1	59	25	24	24	111	0	0	37	1.02	2.66
98 PADRES	66	4	2	73	41	12	12	21	86	0	0	53	0.85	1.48
99 PADRES	64	2	3	67.1	48	23	16	15	73	0	0	40	0.94	2.14
00 PADRES	70	4	7	72.1	61	29	24	11	85	0	0	43	1.00	2.99
01 PADRES	62	3	4	60.1	48	25	23	21	63	0	0	43	1.14	3.43
02 PADRES	61	2	5	59.1	52	20	18	16	69	0	0	38	1.18	2.73
03 PADRES	9	0	0	9	7	2	2	3	11	0	0	0	1.11	2.00
04 PADRES	95	3	3	54.2	42	14	14	8	53	0	0	41	0.91	2.30
06 PADRES	60	1	6	57.2	52	23	19	12	54	0	0	43	1.11	2.97
06 PADRES	65	0	2	63	48	16	15	13	50	0	0	46	0.97	2.14
07 PADRES	61	4	5	57.1	49	21	19	15	44	0	0	42	1.12	2.98
08 PADRES	49	3	6	45.1	38	19	19	9	48	0	0	30	1.04	3.77
09 BREWERS	55	3	2	54	35	11	11	14	48	0	0	37	0.91	1.83
10 BREWERS	50	2	7	47.1	49	31	31	19	30	0	0	10	1.44	5.89
<b>MAJ LEA TOTALS</b>	<b>1035</b>	<b>61</b>	<b>75</b>	<b>1089.1</b>	<b>846</b>	<b>378</b>	<b>347</b>	<b>307</b>	<b>1133</b>	<b>0</b>	<b>0</b>	<b>601</b>	<b>1.06</b>	<b>2.87</b>

IN THE 1980 TOPPS SET, CARO NUMBER 271 WAS JOHNWAY POGGIO.

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OFFICIALLY LICENSED PRODUCT OF MLB. LICENSED BY MLBPA, 2011. © MLBPA. OFFICIAL LICENSEE - MAJOR LEAGUE BASEBALL PLAYERS ASSOCIATION. VISIT MLB.COM FOR TRACKING INFO. PLEASE SEE WWW.TOPPS.COM. CODE#321102.



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# STEP 2: IDENTIFY YOUR PREY

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Ask these questions:

- In which skill areas does the student need the most help? (academic, social, communication)
- How functional or relevant to the student is the target skill I want to trap?
- Am I targeting behaviors that lend themselves to frequent practice opportunities?
- Am I starting with “small game” and saving the larger “prey” for later?



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# STEP 3: SET THE TRAP

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- Place the bait in student's path
- Make it easy to enter
- Student has "free" access to the bait



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# STEP 4: MAINTAIN YOUR TRAP LINE

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- Start small
- Keep the bait fresh
- Don't overwork your trap: Give it a rest periodically
- Get classmates involved.



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# STEP 5: APPRAISE YOUR CATCH

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- Have you captured the right prey? Look for changes in the student's use of targeted skills
- Use frequent and direct assessments to determine if your catch is “big enough to keep”
- If a trap isn't working, make adjustments or design and set another one
- When your trap yields a good catch, celebrate!





# HANDOUT: BEHAVIOR TRAPS

**“GOTCHA!”**

**Twenty-Five Behavior Traps Guaranteed  
to Extend Your Students’ Academic  
and Social Skills**

*Describes effective natural reinforcers that teachers can  
use in the classroom to help students develop positive  
and constructive knowledge and skills*

Alber, S. R., & Heward, W. L. (1996). “GOTCHA!” Twenty-five behavior traps guaranteed to extend your students’ academic and social skills. *Intervention in School and Clinic, 31*, 285-289.



# HANDOUT: RECRUITING SR+

## **Teaching Students to Recruit Positive Attention: A Review and Recommendations<sup>1</sup>**

Sheila R. Alber, Ph.D.,<sup>2,4</sup> and William L. Heward, Ed.D.<sup>3,4</sup>

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*Positive teacher attention and praise are powerful influences on student performance in the classroom. But the classroom is a very busy place, a place where important efforts by students can easily go unnoticed. In such instances, an existing and potentially effective natural contingency of reinforcement is “asleep” and needs to be “woken up.” Teaching students how to recruit positive teacher attention is one way to activate dormant contingencies of reinforcement and help students take a proactive role in their learning. This paper reviews the recruiting research to date, discusses implications for practitioners, proposes a recruitment training package including strategies for promoting generalization of recruiting skills, and offers recommendations for future research.*

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**KEY WORDS:** generalization; inclusion; recruiting; reinforcement; special education; teacher praise.

Alber, S. Alber, S. R., & Heward, W. L. (2000). Teaching students to recruit positive attention: A review and recommendations. *Journal of Behavioral Education, 10*, 177-204.



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# TEACH ENOUGH EXAMPLES

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- The natural environment is characterized by its variability.
- To be truly functional (i.e., get reinforced and thereby be maintained), most behaviors must be performed in a wide variety of stimulus conditions.
- Examples: crossing the street, making change, conversing with others, putting on clothes
- instructional examples/items must be selected carefully to best represent the most likely stimulus conditions the learner will encounter in the future.



---

# TEACH ENOUGH EXAMPLES

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A different example is incorporated into the teaching program each time a change is made in the

- item taught (e.g.,  $7 \times 21$ ,  $14 \times 5$ )
- situation in which the item is taught (e.g., *word alone*, *word in context*)
- setting in which teaching takes place (e.g., *classroom*, *home*)
- person doing the teaching (e.g., different teachers)



---

# TEACH ENOUGH EXAMPLES

---

- A general rule: The more examples/situations used during instruction, the more likely the learner will respond correctly to untrained examples/situations.
- Teaching numerous examples does not guarantee that the needed generalization will occur. You must be sure to teach the right examples.
- Teaching the right examples means selecting and teaching a set of examples that systematically sample the full range of stimulus and variations and response requirements that exist in the generalization environment(s) where the learner must use his/her newly learned knowledge or skill.



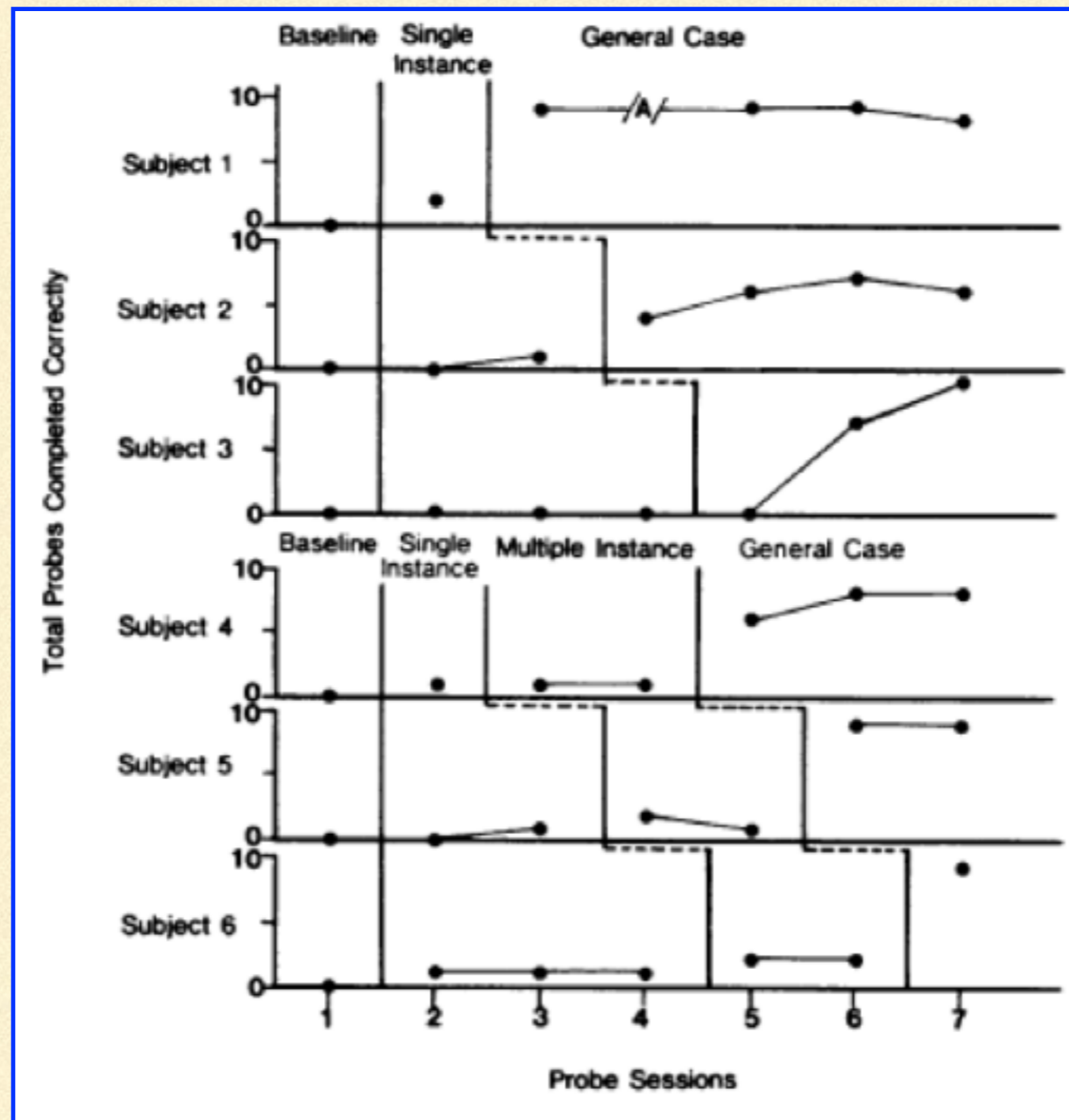


Figure 1. The number of nontrained probe machines completed correctly by students across phases and probe sessions.

SPRAGUE, J. R. & HORNER, R. H. (1984). THE EFFECTS OF SINGLE INSTANCE, MULTIPLE INSTANCE, AND GENERAL CASE TRAINING ON GENERALIZED VENDING MACHINE USE BY MODERATELY AND SEVERELY HANDICAPPED STUDENTS. *JOURNAL OF APPLIED BEHAVIOR ANALYSIS*, 17, 273-278.





WHO WANTS TO BE A GENERALITY PROGRAMMER?



---

# PROGRAM COMMON STIMULI

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- Newly learned behaviors are less likely to be emitted in settings and situations that differ significantly from those that present where the behavior was learned.
- Including stimuli (e.g., people, things, procedures) in the instructional setting that are commonly found in the generalization setting increases the likelihood that those stimuli will function as effective cues for the target behavior in the generality setting.



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# PROGRAMMING COMMON STIMULI: GUIDELINES

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- Assess the generalization environment(s) to identify significant stimuli for inclusion in the training program.
- When the generality environment includes important stimuli that cannot be moved or simulated, at least some training trials must be conducted “on-site.”
- But do not assume that community-based instruction will automatically include all of the important stimuli common to the generality setting.



---

# PROGRAMMING COMMON STIMULI: GUIDELINES

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Consider creating a common stimulus.

- A contrived common stimulus can help simplify a complex situation for the learner.
- People often make good common stimuli for behaviors that must be emitted in social settings.



---

# PROGRAM COMMON STIMULI

---

- Stimuli to be made common between the instructional and generalization settings can also be contrived.
- A stimulus selected for this important role must:
  - Be made functional - responses made in the presence of the contrived stimulus are reinforced during instruction
  - Be transportable - choose a stimulus that will easily go with the learner to the generalization setting; something the learner can “take with him.”



## How To Ask for Help

1. Is the teacher talking?
2. Is the student talking to someone else?
3. Get student's attention.
  - say their name quietly
  - say "Excuse me."
  - tap them on shoulder
4. Ask your question clearly
  - Can you explain what we are supposed to do?
  - How does this look so far?
  - Can you see if I am doing this right?
5. Say "Thank you."

Wolford, T., Alber, S. R., & Heward, W. L. (2001). Teaching middle school students with learning disabilities to recruit peer assistance during cooperative learning group activities. *Learning Disabilities Research & Practice, 16*, 161-173.



---

# PROGRAMMING COMMON STIMULI: GUIDELINES

---

- Tell the learner what is expected of him/her in the generality setting and how that situation will likely differ from the training situation.
- Don't forget this simple, direct approach. But, don't rely on it either!



---

# PROGRAMMING COMMON STIMULI: GUIDELINES

---

- When contriving a stimulus, remember to make the new stimulus both functional and transportable.
- The contrived stimulus becomes functional for the learner when it prompts and aides successful (i.e., reinforced) performance of the target skill.
- Transportability should be considered in the selection and design of contrived stimuli.



# Combining Generalization & Maintenance Strategies: Aiming for Natural Contingencies of SR+, Teaching Enough Examples, & Programming Common Stimuli

## - The Cooks -

**Lisa** - 21 yr old, IQ 72, no functional braille, verbal perseveration

**Steve** - 20 yr old, 64 IQ, reading K, arithmetic grade 3, no functional braille

**Carl** - 17 yr old, IQ 72, reading K, arithmetic grade 2.5, no braille skills, degenerative neurological disorder





---

# TRAINED & PROBE RECIPES

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## Trained Recipes

- These items were taught directly.

## Untrained Recipes: Simple Generalization

- Preparation of these recipes required the same skills as the trained recipes

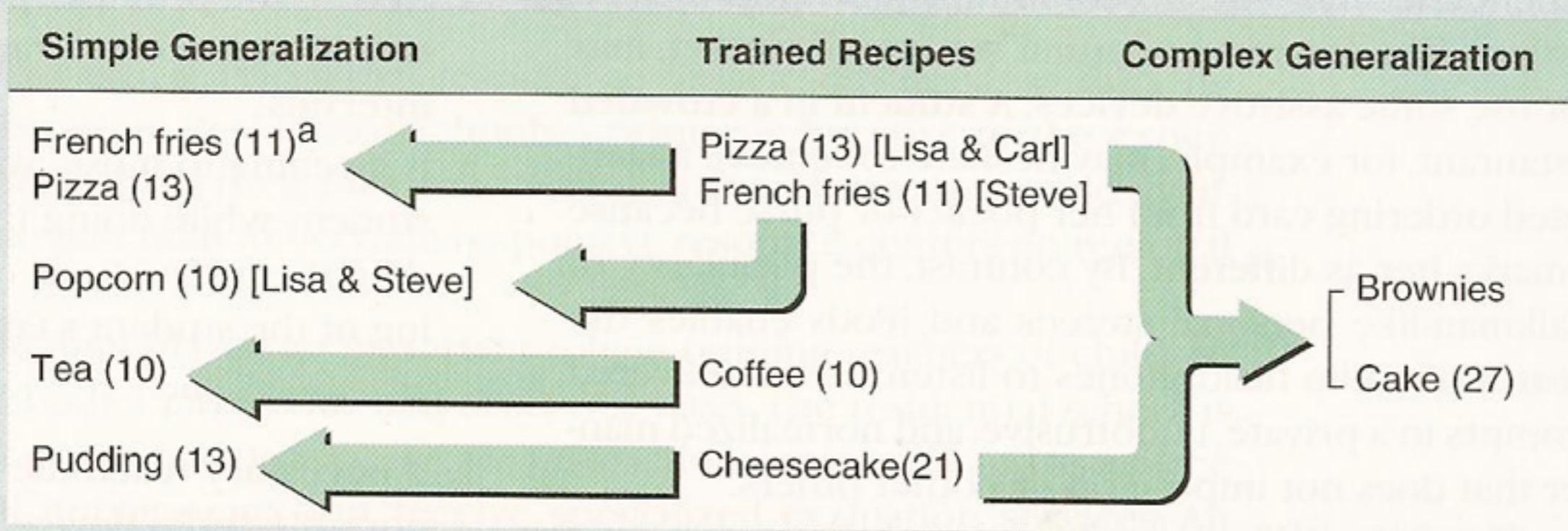
## Untrained Recipes: Complex Generalization

- Preparation of these recipes required a combination of the skills learned in two of the three recipes items

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



Relationship between trained recipes and two classes of untrained recipes used to assess generalization



*Trained Recipes* - These recipes were taught directly.

*Simple Generalization* - Preparation of these recipes required the same preparation skills as trained recipes.

*Complex Generalization* - Preparation of these recipes required a combination of the food preparation skills learned in two of the three trained recipes.

<sup>a</sup> = Numbers in parentheses indicate number of steps in task analysis.

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



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# RESULTS

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## Trained Recipes

- Steve, Lisa, and Carl learned to prepare the trained food items with the tape recorded recipes.
- A total of 12, 20, and 36 trials were needed to teach Steve, Lisa, and Carl to prepare three different recipes.

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



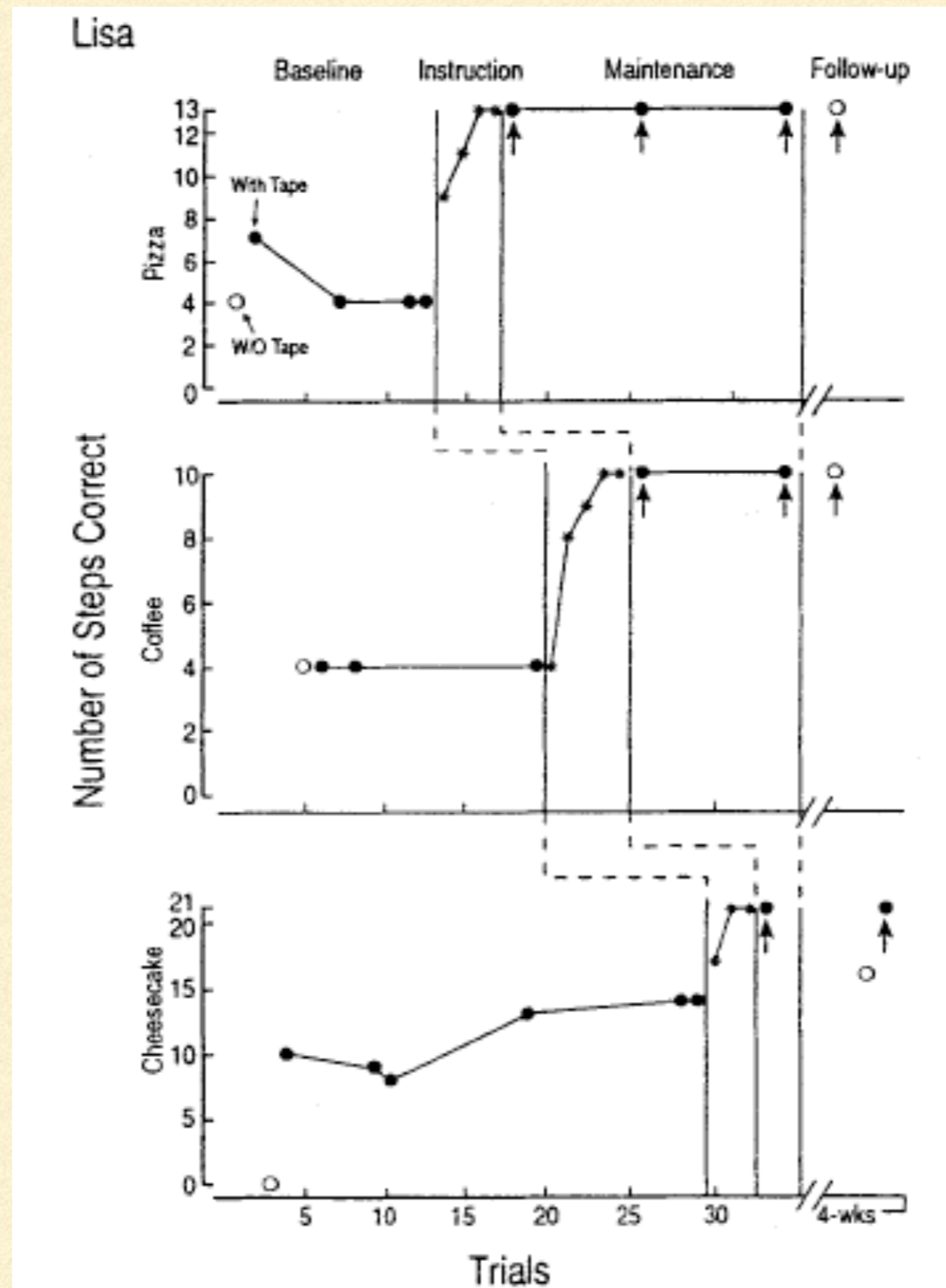


Fig. 1. Number of correct recipe steps completed by Lisa during baseline, instruction, maintenance, and follow-up probes for three trained recipes. Arrows indicate trials in which the prepared food was edible.

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



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# RESULTS

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- Steve, Lisa, and Carl also learned to prepare both the simple and complex generalization tape recorded recipes as a function of their mastery of the trained recipes.

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



Lisa

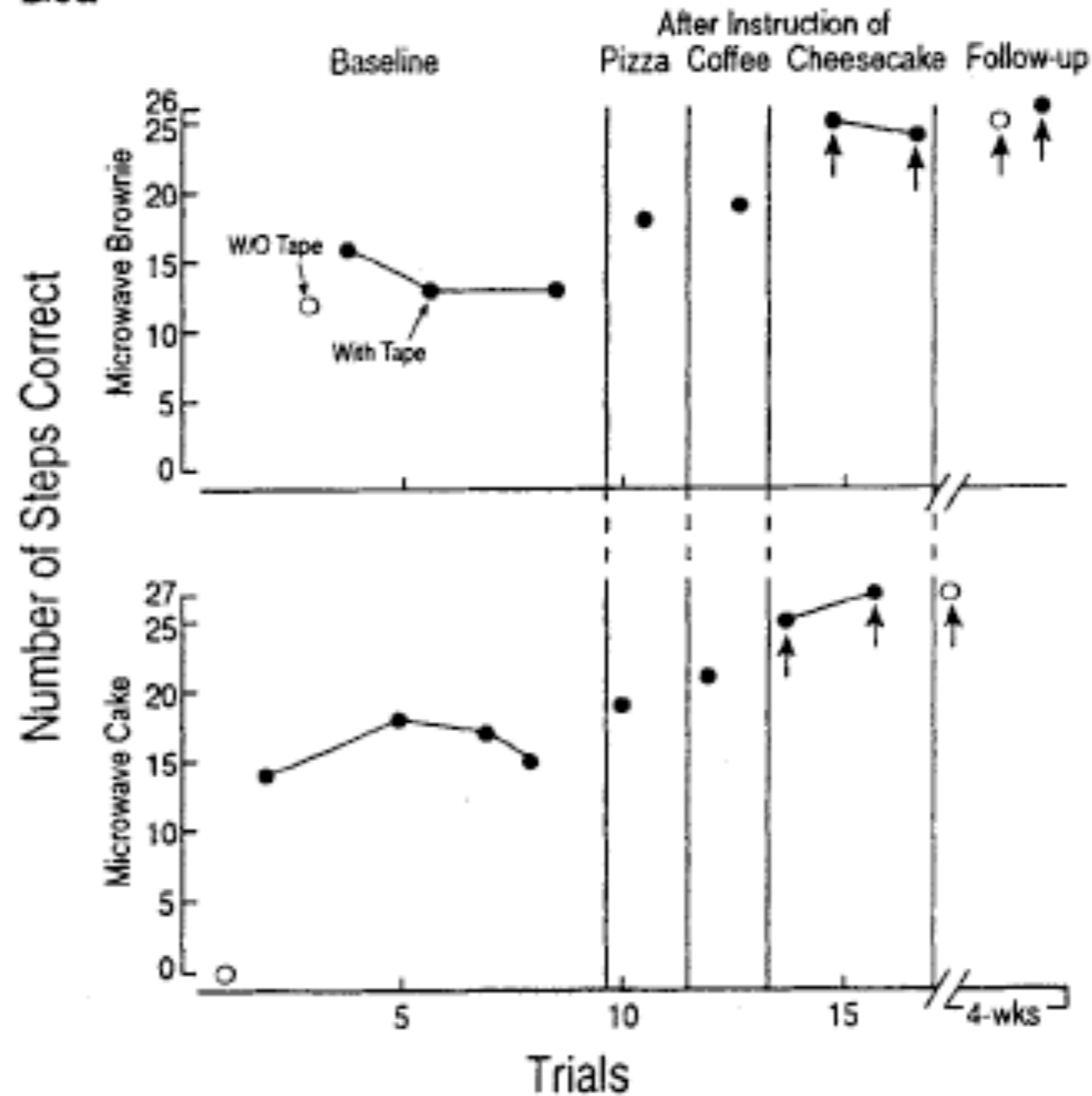


Fig. 7. Number of correct food preparation steps completed by Lisa during baseline, after instruction on trained items, and during follow-up for two untrained recipes representing complex generalized outcomes. Arrows indicate trials in which the prepared food was edible.

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



# NUMBER AND PERCENTAGE OF TRIALS IN WHICH EACH STUDENT PREPARED EDIBLE FOOD

	Trained Recipes		Simple Gen. Recp.		Complex Gen. Recp.	
	Baseline	Maint. & Follow-Up	Baseline	Maint. & Follow-Up	Baseline	Maint. & Follow-Up
Steve	1/13 (8%)	8/8 (100%)	0/20 (0%)	7/14 (50%)	0/8 (0%)	5/5 (100%)
Lisa	0/13 (0%)	7/7 (100%)	2/12 (17%)	12/12 (100%)	0/11 (0%)	5/5 (100%)
Carl	0/19 (0%)	7/10 (70%)	4/18 (22%)	7/8 (88%)	8/18 (44%)	3/5 (60%)
<b>All 3</b>	<b>1/45 (2%)</b>	<b>22/25 (100%)</b>	<b>6/50 (12%)</b>	<b>26/34 (76%)</b>	<b>8/37 (22%)</b>	<b>13/15 (87%)</b>

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



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# HOW TEACHING ENOUGH EXAMPLES WAS USED IN THIS STUDY:

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- Training recipes included the full range of stimulus variations (e.g., ingredients, cooking utensils) and response requirements (e.g., stirring, opening containers, breaking eggs, measuring) found in the generalization environment (i.e., the untrained recipes).

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



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# HOW PROGRAMMING COMMON STIMULI WAS USED IN THE STUDY:

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- Instructional setting included appliances, materials, sights, and sounds of typical “real world” kitchens.
- The tape recorded instructions were a contrived common stimulus made functional during training and transportable from one kitchen to another.

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



---

# HOW AIM FOR NATURAL CONTINGENCIES OF REINFORCEMENTS WAS USED IN THIS STUDY:

---

## Primary reinforcement

- Students ate the food they correctly prepared

## Social reinforcement

- Students shared the food they prepared: Lisa with friends & staff in group home, Carl and Steve with their classmates; Steve cooked in front of his girlfriend

Trask-Tyler, S.A., Grossi, T.A., & Heward, W. L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education*, 4, 283-311.



---

# PROGRAM INDISCRIMINABLE STIMULI

---

The clear, predictable, and immediate consequences that are typically part of systematic instruction can work against generalized responding. This is most likely to occur when:

- The learner can easily discriminate when the instructional contingencies are absent in the generalization settings.
- “The game’s off. I don’t need to respond here/now.”



---

# PROGRAM INDISCRIMINABLE STIMULI

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Two general strategies

- Intermittent reinforcement
- Delayed consequences



---

# PROGRAMMING INDISCRIMINABLE STIMULI EXAMPLES

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- **Following Classroom Rules** - Periodically, sometimes right away, and sometimes 5 or 10 minutes into a classroom activity or lesson, the teacher praises specific students for following classroom rules and procedures.
- **Composition** - The teacher randomly selects two or three students to read aloud part of their stories to the class, praising the students for their good writing.



---

# IMMEDIATE CONSEQUENCES

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- We purposely design and implement teaching programs so the learner receives consistent and immediate consequences for emitting the target behavior.
- Although consistent and immediate consequences are often necessary to help students acquire new behavior, those very contingencies **can actually impede/work against performing the target behavior consistently in generalized settings.**



---

# DELAYED CONSEQUENCES

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Programming delayed consequences is similar to programming intermittent reinforcement in two ways:

- Reinforcement is **not delivered each time** the target behavior is emitted.
- The contingency is **unpredictable** in that there are no clear stimuli to signal the learner which of his/her current responses will produce reinforcement.



---

# DELAYED CONSEQUENCES

---

The use of delayed rewards differs from intermittent reinforcement in that:

- Reinforcement is **not delivered immediately** after the target behavior has been performed; the reinforcer is provided after a period of time (i.e., delay) has elapsed.



---

# WHY DELAYED REINFORCEMENT

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- An effective “delayed reinforcement” contingency can make it difficult for the learner to discriminate **when (and/or where) the target behavior must be emitted in order to receive reinforcement.**



---

# WHY DELAYED REINFORCEMENT

---

- The delayed reward is **contingent on the learner performing of the target behavior** in the generalization setting during an earlier time period.
- Because the **learner does not know when** during the earlier time period that his behavior is being evaluated, he is more likely to “be good all of the time” in order to be eligible for the delayed reward.



---

# CAUTION!

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- When using a delayed reward tactic, you must **build a relationship between the target behavior and the reinforcer that will be received by the learner at a later (i.e., delayed) time.**
- Delayed rewards may not be effective with learners with severe cognitive disabilities.



---

# DELAYED REWARDS AT SCHOOL

---

- **Math Seatwork** - Every few minutes (e.g., on a VI 3-min schedule), the teacher:
  1. walks to a randomly selected student's desk and has the roll a pair of dice or student spin a spinner,
  2. counts backwards from the worksheet problem the student is currently working on by the number shown on the dice/spinner, and
  3. gives a token to the student if that problem is correct.
- Students' best chance to contact reinforcement is to begin working immediately on the problems and to working quickly but carefully throughout the seatwork period.



---

# DELAYED REWARDS AT SCHOOL

---

- **Numbered Heads Together** - Students are seated in heterogeneous groups of three or four, and each student is given the number 1, 2, 3, or 4. The teacher presents a problem to the class, and each group discusses it and comes up with an answer. Next, the teacher randomly selects a number from 1 to 4 and then calls upon one or more students with that number to answer. This strategy promotes cooperation within the group rather than competition. All students must know the answer so group members help each other understand not only the answer, but also the how and why behind it.

Maheady, L., Mallette, B., Harper, G. F., & Sacca, K. (1991). Heads together: A peer-mediated option for improving the academic achievement of heterogeneous learning groups. *Remedial and Special Education, 12*(2), 25–33.



---

# DELAYED REWARDS ON THE JOB

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- At break and at shift's end, the supervisor marks on a large chart the number of rooms (or parts of rooms) correctly cleaned by each worker. One employee's name is then drawn. If that person has met a specified production criterion, the entire crew receives a reward.



---

# DELAYED REWARDS ON THE JOB

---

- At break and at the end of the shift, Faye pulls a slip of paper from the supervisor's hat. The item and room number marked on the slip of paper (e.g., rug #566) are then checked by the supervisor, and Faye earns a reinforcer if that item has been cleaned properly.



---

# DELAYED REWARDS ON THE JOB

---

- The supervisor collects all the “post-it” notes left by Faye in the rooms (or items within rooms) that she completed. The notes left on rooms/items that were properly cleaned get initialed by the supervisor. After work Faye draws a “post-it” note from all that were collected. If it’s initialed, she gets a reward.



---

# TEACH SELF-MANAGEMENT SKILLS

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# POST-IT NOTES TO THE RESCUE!

---

Calling Eitan “forgetful” or “absentminded” was a huge understatement--he was always failing to do things that he needed and wanted to do. His day was just so busy! But Eitan is starting to get a handle on things. In the morning, a Post-It Note on his bathroom mirror reminds him to wear his gray suit for his presentation at today’s sales meeting.



---

# POST-IT NOTES TO THE RESCUE!

---

When he opens the refrigerator, Eitan sees another note on the orange juice reminding him to take the revised sales report to work. And then when Eitan gets in his car — sales report in hand and looking sharp in his gray suit — he sits on the library book he put on the driver's seat the night before, which greatly increases the probability of his returning it to the library before it's overdue.



---

# 24/7 BEHAVIOR CHANGE AGENT?

---

- Widespread generalization and maintenance of important skills would occur if someone could be found to accompany the student to every generalization setting, to always be available to prompt and reinforce every desirable form of the target behavior.
- Fortunately, there is always someone with the potential to fill this demanding job: **the student himself!**



---

# NEEDED: SELF-MANAGEMENT SKILLS

---

- To be effective as his or her own behavior-change agent, a person must learn to use some special skills--a set of skills collectively referred to as self-management.
- An effective self-manager makes responses, responses designed to serve as **cues and/or consequences for the target behavior.**



---

## Target Behavior

- Put the garbage cans out by the curb on Thursday nights
- Ride exercise bike for 30 minutes a day

## Self-management Response(s)

- When leaving for work in the morning, pull the trash cans onto the space in garage where you park the car
- Each morning show co-worker your graph of minutes rode



---

## Target Behavior

- Write 20-page term paper

## Self-management Response(s)

- (1) outline paper and divide into 4 parts, specify due date for each part;  
(2) give roommate 4, pre-dated \$20 checks;  
(3) roommate returns one check on each due date, contingent upon completion of one part of the paper.



---

# IS SELF-MANAGEMENT A GOOD DEAL?

---

Now we have two generality problems instead of just one:

- Giving a subject a self-control response designed to accomplish the generalization of some critical behavior changes does not ensure that those self-control responses will indeed be used. They are, after all, just responses: they too need generalization and maintenance (Baer et al., 1981, p. 39).



---

# TWO GENERALIZATION PROBLEMS?

---

- Don't worry too much about this. There is a trade-off; and it's one that works in your favor: **A small repertoire of self-management (SM) techniques can be used to extend and maintain a wide variety and large number of behaviors.**



---

# TWO GENERALIZATION PROBLEMS?

---

Then again, don't get too carried away either: Self-management is not magic. Remember that **SM consists of nothing more than behavior.**

- SM techniques consist of behavior that must first be acquired by the student; then those SM behaviors must be generalized and maintained if they are to have an effect on the target behaviors.



---

# DEFINING SELF-MANAGEMENT

---

## The “Self” as controller of behavior

- There is nothing mystical about self-management. A person controls himself precisely as he would control the behavior of someone else--**by manipulating variables that influence his or her behavior.**



---

# SKINNER'S TWO-RESPONSE CONCEPT OF SELF-CONTROL

---

When a man controls himself, chooses a course of action, thinks out the problem, or strives toward an increase in self-knowledge, he is behaving. He controls himself precisely as he would control the behavior of anyone else--through manipulation of variables of which behavior is a function. His behavior in so doing is a proper object of analysis, and eventually it must be accounted for with variables lying outside the individual.

*Science and Human Behavior, 1953 (pp. 228-229)*



---

# SKINNER'S TWO-RESPONSE CONCEPT OF SELF-CONTROL

---

The controlling response affects variables in such a way as to change the probability of the other, the controlled response. The controlling response may manipulate any of the variables of which the controlled response is a function; hence there are a good many different forms of self-control.

*Science and Human Behavior*, 1953 (pp. 228-229)



---

# SELF-MANAGEMENT INVOLVES AT LEAST TWO RESPONSES

---

- The self-management response (Skinner’s “controlling response”) is behavior (e.g., placing the overdue library book on the driver’s seat of your car the night before) the person emits in order to increase the probability that she will emit the
- Target behavior of interest (Skinner “controlled response”) at a later time (e.g., returning the book the next day).



---

# SELF-MANAGEMENT DEFINED

---

The personal application of behavior change tactics that produces a desired change in behavior.

- Cooper, Heron, & Heward (2007, p. 578)



---

# SELF-MANAGEMENT DEFINED

---

Advantages of this definition:

- **Includes all types of SM efforts** from one-shot, “tape-a-note-to-the-mirror-to-remind-myself-to-do-something-later” affairs to complex SM interventions with concurrent contingencies.
- Does not rely on a notion of “internal causation,” but looks to **observable alterable events in the environment.**
- Is a functional definition in that the person must achieve **success with the target behavior** before the effort is deemed self-management.



---

# IS IT SELF-MANAGEMENT?

---

Using this definition, some degree of self-management is involved whenever a person behaves to provide himself

- **antecedent cues/prompts** that evoke the target behavior, and/or
- **contingent consequences** that alter the rate, or some other measurable dimension of the target behavior.
- But SM has not occurred if the target behavior would have occurred or changed without the self-managing/self-controlling response.



---

# WHAT IS SELF-MONITORING?

---

- Self monitoring occurs when a person **systematically observes his/her own behavior and responds to the occurrence or nonoccurrence of a target behavior.**
- That response might be recording the occurrence or nonoccurrence of the behavior (i.e., self-recording) and/or assessing or evaluating one's performance of the behavior (i.e., self-evaluation).



---

# HOW SHOULD SELF-MONITORING BE CONDUCTED?

---

- The occurrence (or nonoccurrence) of the target response **should be recorded immediately**.
- Self-evaluative statements said to oneself immediately after noting/recording the response may also influence the target behavior.
  - “Good! I kept my head down on that swing.”
  - “I’m having one of my best days ever! It’s 5 p.m. and I’ve only smoked one cigarette!”
- Devices and procedures for self-monitoring include recording **charts or cards, lunchroom counters, wrist counters, moving pennies, masking tape**.

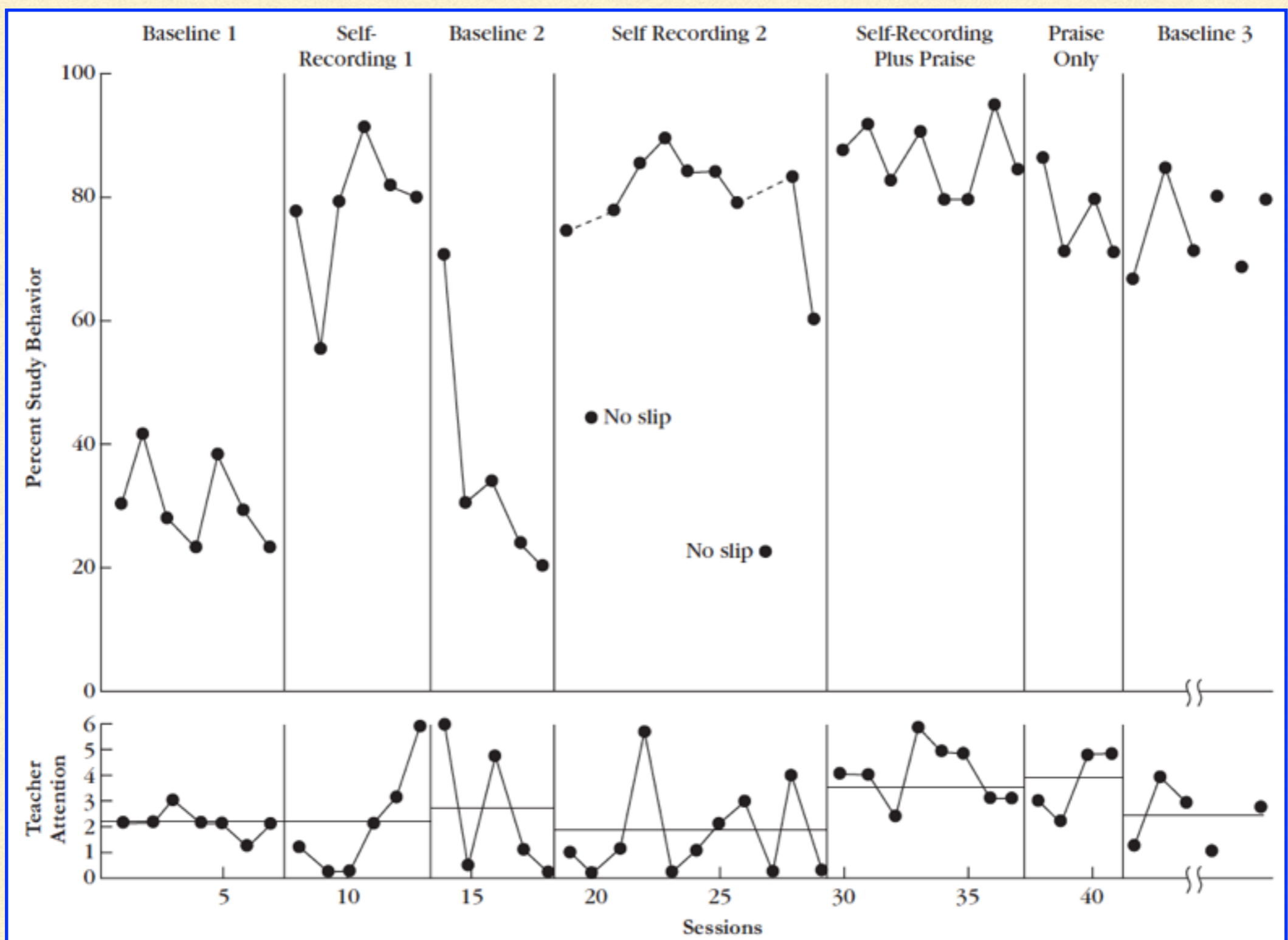


									_____
									Date
+	+	-	-	+	+	-	+	-	+
-	+	-							

At the top of the page are several rows of squares. At different times during the period (whenever you think of it but don't fill them all in at the same time) put down a "+" if you were studying and a "-" if you weren't. If, for example, you were ready to mark a square, you would ask yourself if, for the last few minutes you had been studying and then you would put down a "+" if you had been studying or a "-" if you hadn't been studying.

Self-Recoding form used by an 8th grade girl.  
(Broden, Hall, & Mitts, 1971, JABA)






**Figure 27.3** Percentage of observed intervals in which an eighth-grade girl paid attention in a history class.  
 From "The Effect of Self-Recording on the Classroom Behavior of Two Eighth-Grade Students" by M. Broden, R. V. Hall, and B. Mitts, 1971, *Journal of Applied Behavior Analysis*, 4, p. 194. Copyright 1971 by the Society for the Experimental Analysis of Behavior, Inc. Reprinted by permission.




Date: \_\_\_\_\_


Work quietly




1. "Am I working quietly?"




2. Check my work




3. "Do I need teacher?"



4. Raise my hand




5. "How am I doing?"



6. Say "thank you"

THANK YOU



Each item has two columns of three smiley face icons (happy and sad) for self-monitoring.

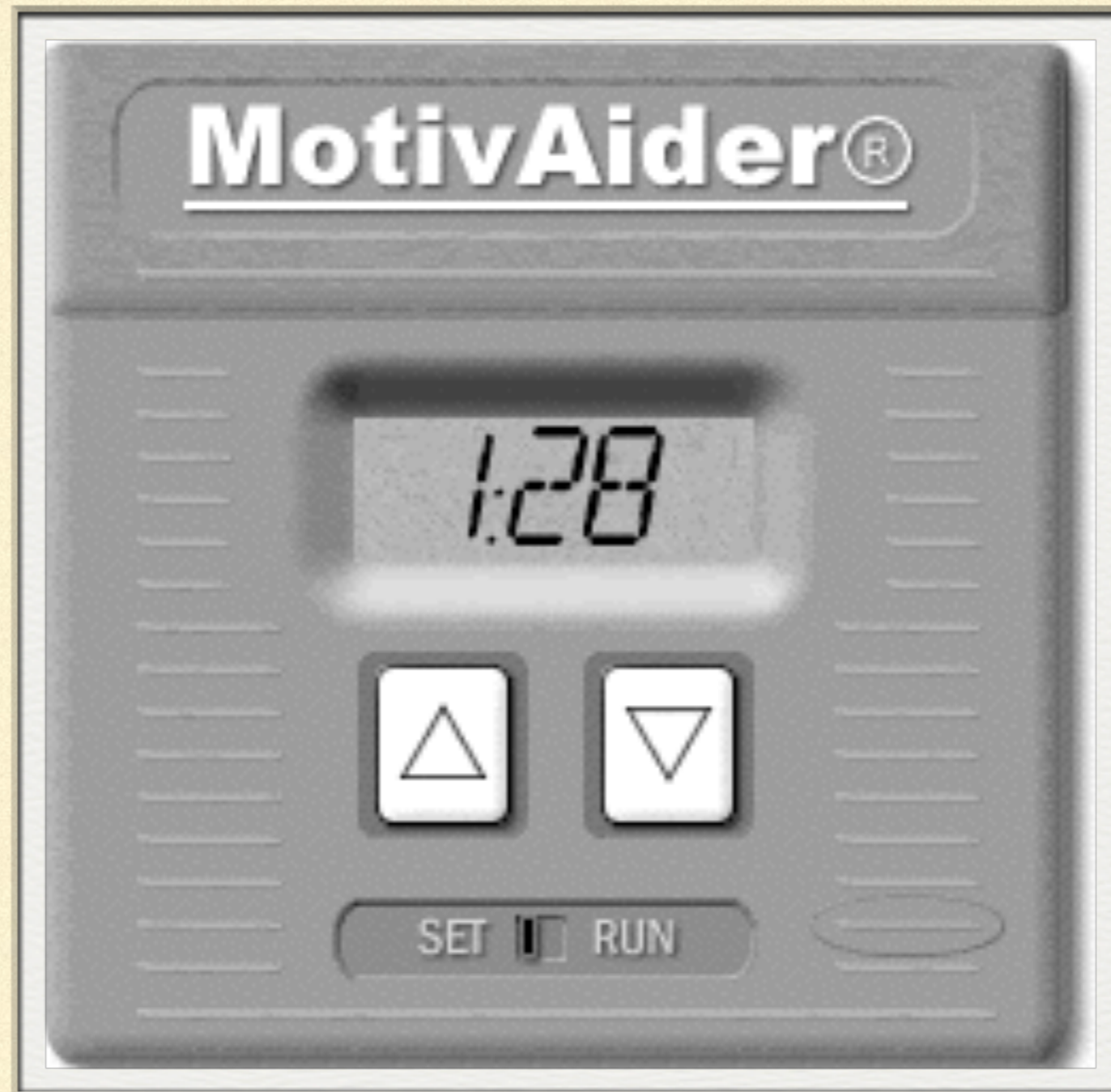
FORM USED BY ELEMENTARY STUDENTS TO SELF-MONITOR FOLLOWING DIRECTIONS DURING INDEPENDENT SEAT WORK. (LO, 2003)



John Doe Name			Math Subject	Oct. 19 Week	Fall Quarter					
Day/ Date	Absent/ Tardy	Prepared	Tests and Assignments	Due Dates	Completed	Turned In	Points Possible	Points Earned and/or Grade	Student Rating Citizenship Grade	
<b>Mon</b> 10/19	--	Yes	Page 66 1-10	10/20	✓	✓	10	10	S	
<b>Tue</b> 10/20	T	No	Page 70 25-50 (odd)	10/21	✓		12	0	U	
<b>Wed</b> 10/21	--	Yes	Page 78 1-30 (even)	10/22			30	0	S	
<b>Thu</b> 10/22	A									
<b>Fri</b> 10/23	--	Yes	Test	Today			50	30	S	
<b>Estimated academic grade for this term</b> <u> D </u>							<b>Weekly Total</b>	102	40	S
<b>Estimated citizenship grade for this term</b> <u> S </u>										
<b>I could improve my grade by</b> turning homework in and studying for tests.										

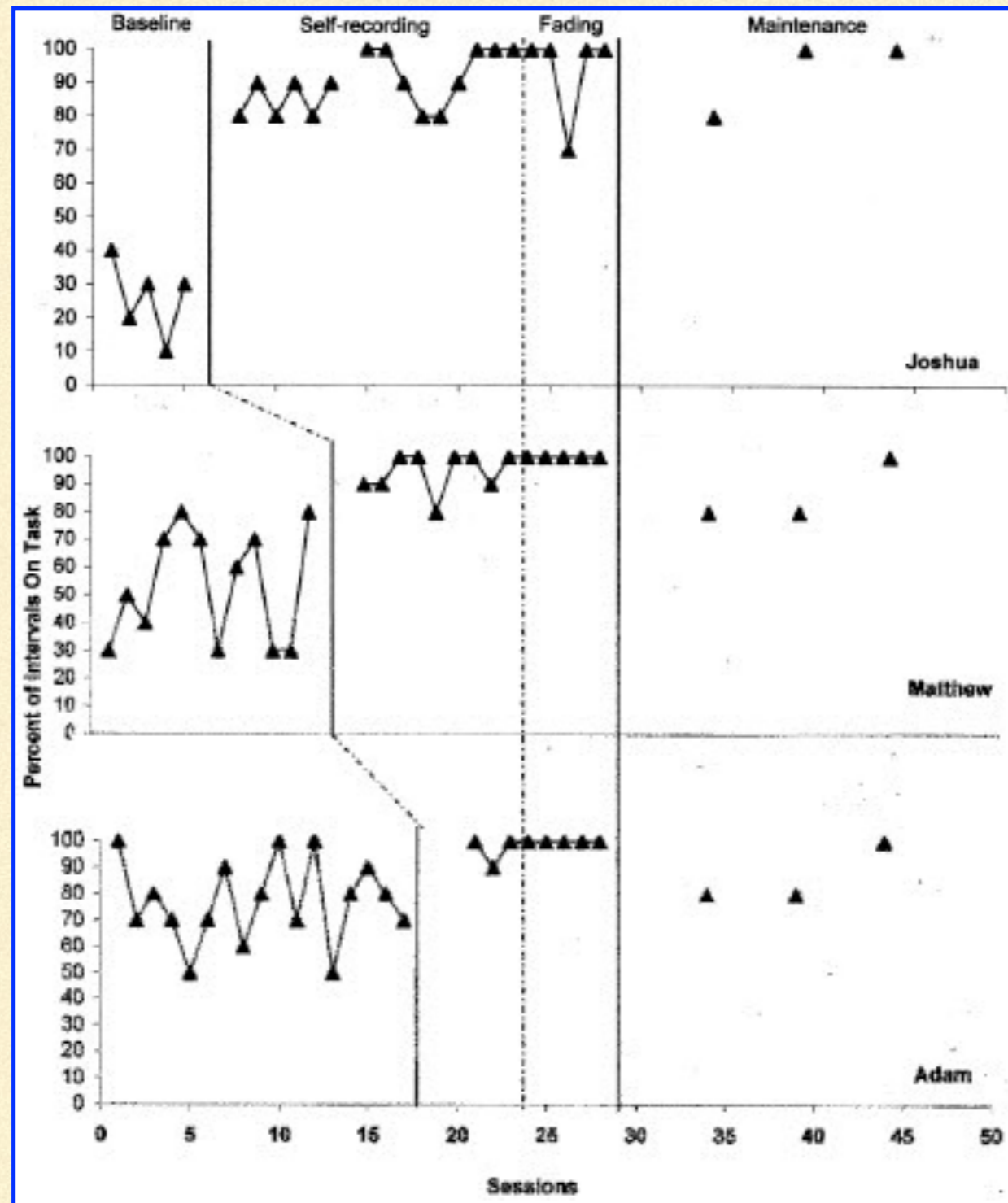
Form used by middle and secondary school students to self-monitor their assignment completion and citizenship scores. (From "Teaching Self-Management Strategies to Adolescents" by R. K. Young, R. P. West, D. J. Smith, and D. P. Morgan, 1991).





The MotivAider™ provides a gentle vibrating signal at regular or variable intervals programmed by the user. (Photo © 2005, Behavioral Dynamics, Inc.)





Bocuzzi Legge, D., DeBar, R. M., & Sheila R. Alber-Morgan, S. R. (2010). The effects of self-monitoring with a MotivAider® on the on-task behavior of fifth and sixth graders with autism and other disabilities. *Journal of Behavior Assessment and Intervention in Children*, 1(1), 43-52.



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Click on each tool name to view the tool and get tips for using the tool. This is a good place to look at the tools, learn about the strategies, and decide which ones to use.

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File Tool Menu

**Pick a Tool!**





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<b>Monitoring Cards</b>  Molly	<b>Make-a-Plan</b>  Mike	<b>Contracts</b>  Callie




1. First you will give this card a name for your good behavior choice.

2. Then you will click on the pink words for **STOP**, **THINK**, **ACT**, and **RESULTS**.

### Staying Cool

		Follow STAR?		
		Time	Yes	No
 <b>STOP</b>	Yelling at kids when they bump my desk.			
 <b>THINK</b>	I can control my temper. I can be cool.			
 <b>ACT</b>	Say, "It's OK". Pick up anything that fell on the floor.			
 <b>RESULTS</b>	I will be cool. I will keep my recess time. I will get a good note home.			

Click on me to start making your own card!





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# DOES ACCURACY MATTER?

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Accuracy depends, in large part, upon the **reinforcing and punishing contingencies in effect for the self-reported data.**

- When self-reported scores are used to determine whether or not a student receives reinforcement, accuracy deteriorates over time.
- As a rule, the “bigger” the reinforcers (or the punishers) that are contingent upon meeting (or failing to meet) criterion scores, the less accurate students will be in self-recording those scores.



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# DOES ACCURACY MATTER?

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It is important to **reinforce accurate recording**, rather than the absolute scores or data reported.

- Gradually shift from frequently checking the accuracy of students' self-recorded data to a random schedule of infrequent checks.
- Check students' self-reported data on a random schedule (i.e. an indiscriminable contingency), and make it **“fun to get caught.”**
- Remember that accurate self-recording isn't your main interest. Target behaviors often improve even though the self-recorded data are accurate.



# HANDOUT: SELF-MONITORING



Joseph, L. M., & Konrad, M. (2009). Twenty ways to help students self-manage their academic performance. *Intervention in School and Clinic, 44*, 246-249.



# HANDOUT: MOTIVAIDER

## Motivate Me! 20 Tips for Using a MotivAider® to Improve your Classroom

Amanda J. Flaute  
Stephanie M. Peterson  
Renee K. Van Norman  
Tracey Riffle  
Amanda Eakins

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### **Abstract**

The MotivAider is a small electronic device that can be set to vibrate at different times to remind people to manage their behavior. This article includes several examples of how the MotivAider can be effectively used in the classroom to manage both student and teacher behaviors.

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### **Keywords**

self management, self motivation, motivation techniques



