

SPCD 519
Weeks 12

TEACHING FOR GENERALIZATION & MAINTENANCE

Goals

By the end of class, you should be able to:

- Explain what *generalization* is, why it is critical for teachers to know how to teach so that it occurs, and give an example of it from your own experience in the classroom
- Explain and give an example of the 3 types of generalization
- Explain and give an example of each teaching procedure to use in promoting generalization

Stages or Levels of Learning

Generalization



Maintenance



Fluency



Acquisition

Review

Generalization (transfer of learning) is using behaviors learned under one set of circumstances, such as the teaching setting, in other situations.

At other times and places



In the presence of other people



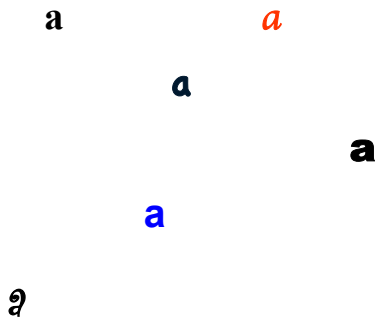
Teaching for Generalization has advantages such as not having to teach a behavior under every possible circumstance or start from “scratch” with every behavior.

- Possible problems
 - May experience *overgeneralization*
 - Response form may drift from desired response

Some Terms Associated with Generalization

- A **stimulus class** contains multiple stimuli that occasion (trigger) the same response
Stimulus Class: 'a'; (i.e., share common elements).
The more similar 2 stimuli are to one another, the more likely that a behavioral response will occur in the presence of both stimuli.
- A **response class** consists of behaviors share some features in common (i.e., that are similar to one another).

An example of a Stimulus Class:
'a'



Another example of a Stimulus Class: Crying Babies



[Some Useful Terms](#)

|| Social Greetings are an example of a Response Class.

Shaking hands



Sniffing (if you're a dog!)



Waving

Namaste hands



Bowing



Hugs



|| A **probe** is another term related to Generalization.

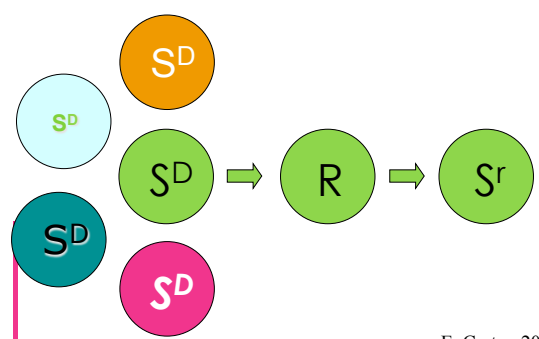
A probe is a brief assessment of the performance of a target behavior, often designed to see if the behavior is occurring across different contexts or people

|| **Stimulus Generalization**, one of two categories of generalization, occurs in presence of untrained (novel) but similar stimuli (in untrained contexts, at untrained times, or with new people).

▪ Examples:

- Greeting people (different faces)
- Identifying sight words (in different types of texts)
- Math problem strategies (applying the same math strategies to similar antecedents)
- Reading novel C-V-C words (after learning an initial C-V-C words)

Stimulus Generalization



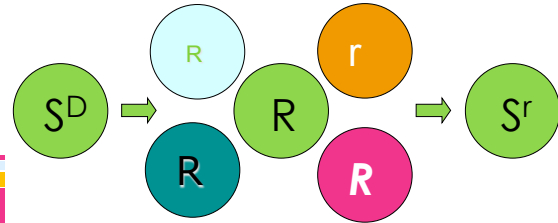
E. Carter, 2003

Response generalization, the second category of generalization takes place when a person displays a variation of the taught behavior in the presence of the original S^D .

- Some examples of response generalization are
 - Conversations
 - Behaviors requiring creativity
 - Writing
 - Dancing
 - Art



Response Generalization



E. Carter, 2003

Maintenance, another type of generalization, is when a learned behavior persists after instruction has ended.



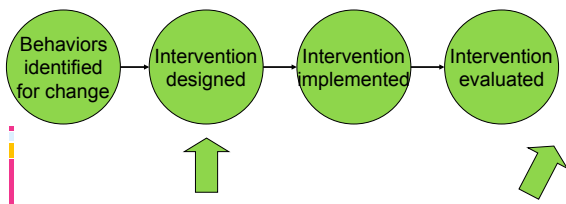
Behavior persists under natural environmental conditions



Occasionally generalization may take place without formal teaching.

- Why does spontaneous generalization occur?
 - The skill is reinforcing in itself
 - The setting becomes a conditioned reinforcer
 - Adult/staff behavior has been changed
- Inappropriate generalization (overgeneralization, for example) also sometimes occurs and may be corrected by discrimination training

Think about/plan for Generalization from the **beginning** of planning for instruction and include in your teaching plan how you will assess for generalization.



E. Carter, 2003

Questions to Ask Before Planning Instruction to Teach for Generalization

(Haring & Liberty, 1990)

1. Has student *acquired* the target skill?
Can s/he perform it fluently?
2. Can the student obtain reinforcers *without* performing the skill?
3. Does the student perform *part of the skill*?

Eight Strategies to Use When Planning and Teaching for Generalization

“Train and hope” (not a real strategy!)

e.g., teach addition facts and hope John scores well on the timed quiz; practice asking a peer to play during a 30 min teaching session in the classroom and hoping that Mary uses the skill when she is at recess on the playground

Typically, this approach doesn't work, so instead. . .

- **ASSESS** for generalization & use some of the following specific teaching strategies
- Ask: Is the behavior performed fluently?
 - What are the S_Ps and S_Deltas individual is responding to?
 - Select a strategy and teach it!

1. Introduction of natural maintaining conditions (contingencies)

- *Bringing behavior under the control of consequences that occur naturally in the environment*
 - Natural supports
 - Behavioral trapping:
 - Teach relevant, socially valid behaviors
 - How do you determine what these are?
 - Identify conditions present in the natural environment that are likely to support (naturally reinforce) the behavior, and thus maintain it

|| Example of natural maintaining consequences

- Which are natural contingencies for:
 - Greeting a peer appropriately?
 - Completing an assignment accurately?
 - Showing up on time?
 - Failing to complete a task?

- What are the typical school-based contingencies for these same tasks?

|| 2. **Sequential modification** is when we implement the intervention across all settings in which the target behavior is expected to occur.

- Teach response with initial stimulus/ context; then probe next situation; if no generalization, teach response in that situation; etc. until generalization occurs
- Teach across responses, academic subjects, settings, people, etc.

Is this really an example of generalization??

“The most common mistake that teachers make when they want to establish a generalized behavior change, is to teach one good example of it and expect the student to generalize from that example.”

(D. Baer, 1999, p. 15)

|| 3. **Training sufficient (multiple) exemplars**

- Ensuring that behaviors are performed across a variety of stimulus conditions in which the behaviors will be required
- Teach across multiple settings, activities, and teachers
- Select the **most representative** examples to use in teaching by analyzing the task:
 - Identify critical aspects of the stimulus (natural cue)
 - Identify aspects that must be present if the example is to belong to the general stimulus class
 - Identify nonexamples
 - Teach the examples and nonexamples

|| 4. **Train loosely** is to teach what naturally occurs but to do so by identifying “trainable” moments and teach whenever they occur.

- Is the **opposite** of discrimination training
- Purpose is to prevent irrelevant stimulus controls that inhibit or suppress generalization
- Includes
 - Naturalistic teaching
 - Milieu teaching
 - Incidental teaching

|| 5. **Using indiscriminable contingencies** is using reinforcement or punishment contingencies that are unpredictable to the student

- Difficult for individual to discriminate antecedent and consequential contingencies operating at any particular moment so individual responds to loosely related cues

|| 6. **Programming common stimuli**

is making the teaching setting and natural setting as similar as possible by including common elements.

- In the **teaching** environment, provide stimuli common to **natural** environment (discriminative stimuli, rules, instructional materials, schedules of activities, schedules of reinforcement)

|| 7. **Training to generalize & Mediating generalization**

- Reinforce students for generalizing the target skill
 - Examples: telling students they will receive reinforcement for using their target skill in new settings or situations
- Helping oneself to generalize (mediating)
 - Examples: Self-instruction, self-recording, arranging physical cues, correspondence
 - Training



Steps for Teaching for Generalization

1. Identify situations in which you want the behavior to occur (target stimulus situations).
2. Identify natural sources of reinforcement for the behavior.
3. Select and *implement* appropriate strategies to promote generalization.
4. Monitor generalization of the behavior across settings, people, and time.

(Miltenberger, 2001)

Coming up. . .



- **Next Week (week 14)**
 - **Teaching Individuals to use Self-Management Strategies**
 - **Ethics and ABA**
- **Read: Chapters 12 & 13**
- **Turn in: Quiz 2**