Teaching for Generalization & Maintenance

SPCD 519
Weeks 10 & 11

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

Goals

Discussion

• What factors about you as a learner and about a teaching situation make your ability to generalize more or less successful?

• What are characteristics of your students that may make generalization more difficult for them?
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.

There are many common generalization problems in our world. . .

- Weight loss programs
- Juvenile justice programs (recidivism)
- Alcohol and drug interventions
- Social skills interventions
- College methods courses
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 Useful Terms Associated with Generalization

- A stimulus class contains multiple stimuli that occasion (trigger) the same response
  - \( \text{Stimulus Class 'a'} \) (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 that share some features in common (i.e. that are similar to one another).

An example of a Stimulus Class:

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  a
 / \
a a
 / \
  a
 / \
  a
 / \
  a
 / \
  a
```
Another example of a Stimulus Class: Crying Babies

Some Useful Terms

Social Greetings are an example of a Response Class.

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 settings
  - 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

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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 SD.

- Some examples of response generalization are:
  - Conversations
  - Behaviors requiring creativity
    - Writing
    - Dancing
    - Art
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 how you will assess for generalization.

E. Carter, 2003
Questions to Ask When Deciding 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

1. “Train and hope”
   - Typically, this approach *doesn’t work*, so instead...
   - **ASSESS** for generalization
   - Ask: Is the behavior performed fluently?
     - What are the S’s and Ss individual is responding to?

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??*
3. Introduction of natural maintaining conditions (contingencies) is bringing the target behavior under the control of consequences that occur naturally in the environment.

Examples of this include:
- 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?

“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)
5. **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

6. **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
7. 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)

8. 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)
Small Group Work #7

20 min

• Select 3 of the scenarios to answer.
• Read over them carefully.
• Use assigned cooperative learning group roles to discuss answers and come to consensus.
• Record the group’s answers on 1 sheet.
• Be sure everyone signs the sheet.
• Turn it in!

Coming up. . .

• Next Week: Self-Management
  – Guest Speaker: Tiffany Otero will talk about how she uses goal setting with students in her classes.
  – Review Chapter 11 in your text.
• Small Group Activity # 8 – Self-Management
  – Groups will work in class to complete the activity (see Small Group Handout)
• Quiz 3 – Turn in at Class