



**Children's Hospital  
of Michigan** 

**DMC** DETROIT MEDICAL CENTER

Autism Center

# Generalization and Maintenance

---

## Behavioral Technician Training 6



# Learning Objectives

---

- Define generalization
- Define maintenance
- Describe strategies that help to promote generalization and maintenance

## Generalization & Maintenance

- If we are going to teach skills, we need to ensure that they will generalize to the natural environment and maintain across time.

## Example

---

- A baby picks up a flower, puts it to his nose and smells it. The mom approaches and says, “Oh, good boy! Did you get that for momma?!”
- A few minutes later, the boy picks up a stick, puts it to his nose and smells it.
  - What was the response that generalized?
  - Why did this response generalize?

## Generalization: Definition

---

The ability to perform the behavior:

- Across different settings (setting generalization)
- Across different stimuli (stimulus generalization)
- Across different response topographies (response generalization)



# Types of Generalization


---

**Setting Generalization:** behavior that occurs at different places such as home, school, community; and at different times such as morning, evening, and different days of the week.

**Stimulus Generalization:** behavior that occurs in response to different stimuli, for example, saying "car" when shown different pictures and objects representing different kinds of cars.

**Response Generalization:** behavior that can occur in a variety of ways, for example, making complex requests or drawing different kinds of faces.

# Strategies for Generalization



Natural Environment Training  
Multiple Exemplar Training  
Vary the Training Situation  
Program Common Stimuli  
Train and Hope  
Train to Generalize



## Natural Environment Training

---

Stimuli and reinforcers for the response more closely match those in the natural environment.

Example...

When teaching a child to manipulate fasteners you teach them the skill when they are getting dressed with the clothes they are putting on.



## Multiple Exemplar Training

---

The response is trained with more than one example of each stimulus.

Example...

A child is taught to identify “dog” using a small plastic toy dog, a plush toy dog, a picture of a dog and a real life dog.



## Vary the Training Situation

---

Making sure to change the training situation frequently

Example...

Use 2 or more teachers; Teach in 2 or more settings; Vary your tone of voice, choice of words, body position; Have other people present sometimes and not other times; Vary the reinforcers; Teach sometimes in noisy settings, sometimes in quiet ones; Vary the times of day when trainers teach.

## Program Common Stimuli

---

Include aspects of the generalization setting into the instructional setting

Example...

When teaching a student an object that you want him to identify in a classroom to improve independence in following verbal instructions, ask the teacher to supply items that she commonly asks students to retrieve.

# Train and Hope

---

Train under a specific condition and then do not train or plan for generalization under other conditions (responses, settings, trainers, and/or time)

Example...

The behavior technician teaches the child to ask for a drink of water while doing ABA. They tell the parents that the child can do this skill now and the parents should make the child ask for things they want while at home after session.

- Not recommended – Why?



# Train to Generalize

---

Reinforce generalization explicitly

Example...

When a child engages in a new response or when they try a skill in a new way, with a new person or in a new place reward it at a higher level than when they did it in the situation it was taught.

## Maintenance: Definition

---

The child can continue to perform a skill after time has elapsed.

“Generalization across time”

# Successful Teaching

---

- Frequent learning opportunities
- Focus on independence
- Intersperse mastered and acquisition skills
- Use of shaping procedures
- Child motivation (assessed by their choice of reinforcer)
- Reinforcer should be associated with the operant (mand=requested reinforcer; tact=alternative reinforcer)
- Perform preference assessments
- Use the child's strengths to teach deficits (transfer of stimulus control procedures)



# Discussion and Quiz

---

- Questions????
- Quiz