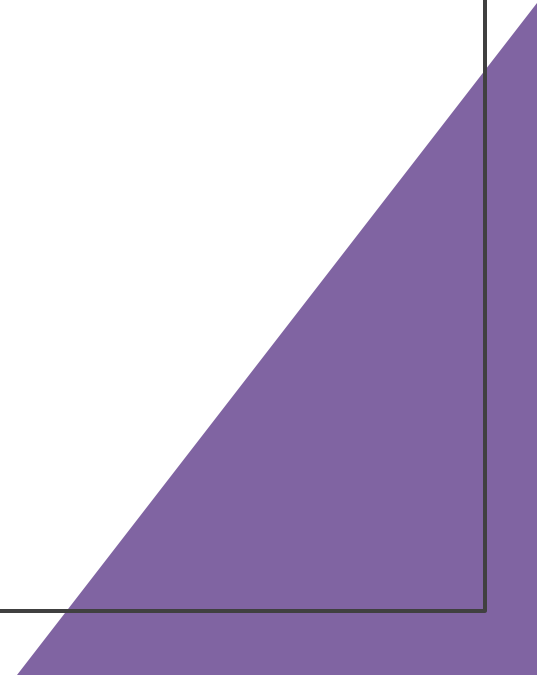


Session 5: Generalization Stage

Training on Data-Based Decision
Making Using the Stages of Learning





Overview

Focus on identifying students in the generalization stage and selecting appropriate strategies.

Key Concepts



Generalization is the goal of all learning; it is the application of a skill in different settings, to different people, or with different materials (Collins, 2012; Jimenez et al., 2019b).



Students generalize when they consistently, accurately, and independently perform a skill under different conditions (Shurr et al., 2019b).



Example: A student finds equivalent fractions on paper, but generalization means using different measuring spoons if one is missing to maintain ingredient amounts.



Although generalization is often depicted at the end of learning stages, it can and should be embedded throughout instruction (Collins, 2012).



In mathematics, students should not only determine unit rates in the classroom but also apply them to real-world shopping and price comparisons.



Skills sometimes need adaptations to be generalized to novel contexts (e.g., adapting unit rate calculations to compare flight prices online).



Educators should support generalized skills across different learning stages and settings.

Generalization Stage-Specific Information

Percentage of Accuracy	Support	Settings/Materials
Above 90%	None	High ability to perform skill in other settings/materials



Example

The student's three most recent data points in multiplication facts (1-12) are 100%, 95%, and 100%. Support level is none. Ability to perform skill in other settings or with other materials is high.

Example

The student's three most recent data points in identifying calculating percentages are 97%, 100%, and 100%. Support level is None. Ability to complete the skills across settings or with different materials is high.

Instructional Strategies for Generalization

Strategy	Definition
General Case Programming	Teaching multiple exemplars of a skill to encourage flexibility in different settings.
Simulations	Using real-world scenarios and materials for instruction.
Example/Non-Example Procedure	Teaching students to discriminate correct from incorrect responses in varied contexts.
Problem-Solving for Adaptations	Supporting students in modifying their skills to adapt to new situations.



General Case Programming

Example for Teaching
Math:

Teaching students to solve
word problems involving
fractions using different
real-world experiences.

Simulations

Example for Teaching Math:

Setting up a classroom where students can practice calculating total cost on a real shopping trip.

Example/Non-
Example
Procedure

Example for Teaching
Math:

Providing correct and
incorrect examples of
area using perimeter.

Problem- Solving for Adaptations

Example for Teaching Math:

A student learns to calculate unit rates for grocery shopping but later applies this skill to compare flight prices.

Example 1

The student's three most recent data points in counting are 100%, 90%, and 100%. Support level is none. Performance in other settings and with other materials is high.

1. Select the stage of learning:

- a) Acquisition
- b) Fluency
- c) Maintenance
- d) Generalization

2. Select the instructional strategy:

- a) Problem solving for adaptations
- b) Distributed trials
- c) Support fading
- d) Approximation

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Example 2

The student's three most recent data points in calculating total cost of 5 items are 100%, 100%, and 100%. Support level is none. Performance in other settings and with other materials is high.

1. Select the stage of learning:

- a) Acquisition
- b) Fluency
- c) Maintenance
- d) Generalization

2. Select the instructional strategy:

- a) Thinning reinforcement
- b) Constant-time delay
- c) Contingent reinforcement
- d) Simulation

Example 2

The student's three most recent data points in calculating total cost of 5 items are **100%, 100%, and 100%**. Support level is **none**. Performance in other settings and with other materials **is high**.

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- d) **Simulation**

Independent Practice

- Complete the probe on Microsoft Forms to apply today's learning.
- Make sure to analyze each case carefully 😊
- Do not use Google or AI
- Let me know once your form has been submitted