



Teacher-delivered Modified Schema Based Instruction Targeting Problem Solving of Middle School Students with Intellectual Disabilities in Small Group Instruction



The School of Education, Florida State University

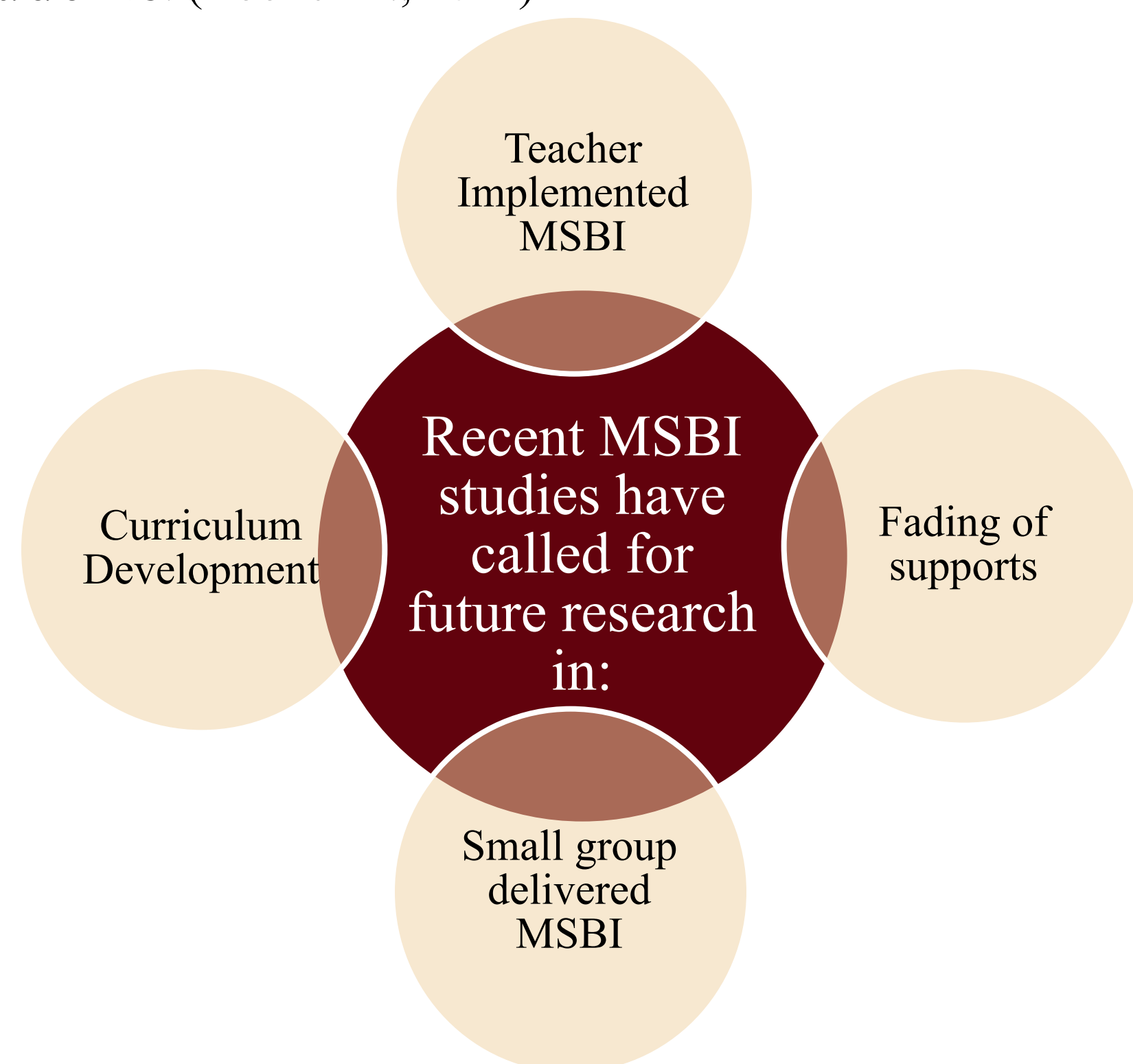
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Background / Purpose

- Post-secondary success is predicted by academic achievement. (Nasamran et al., 2017)
- With assistance, students with extensive support needs (ESN) can learn grade-level mathematics. (Courtade et al., 2014; Spooner, McKissick, & Knight, 2017)
- Leading professionals concur that students with ESN have better quality of life when they receive high-quality academic instruction. (Spooner & Browder, 2015; Taber-Doughy, 2015)
- Recent research has identified modified schema-based instruction (MSBI) as an effective method for teaching mathematical concepts to ESN students. (Root et al., 2021)

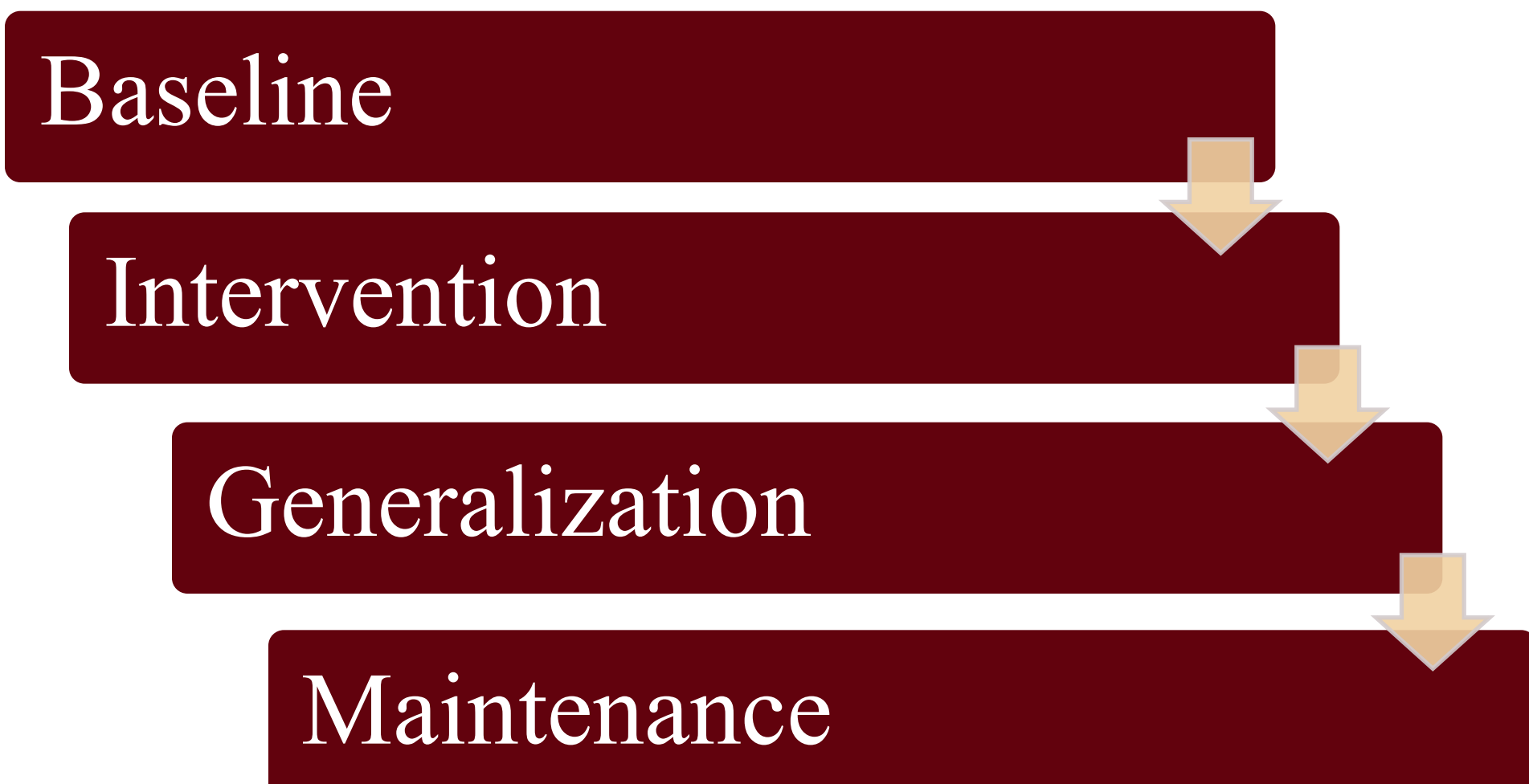


Research Question

What is the effect of teacher delivered modified schema-based instruction on mathematical problem-solving behaviors of middle school aged students with intellectual disabilities?

Research Design

This study used a multiple baseline design including the following phases:

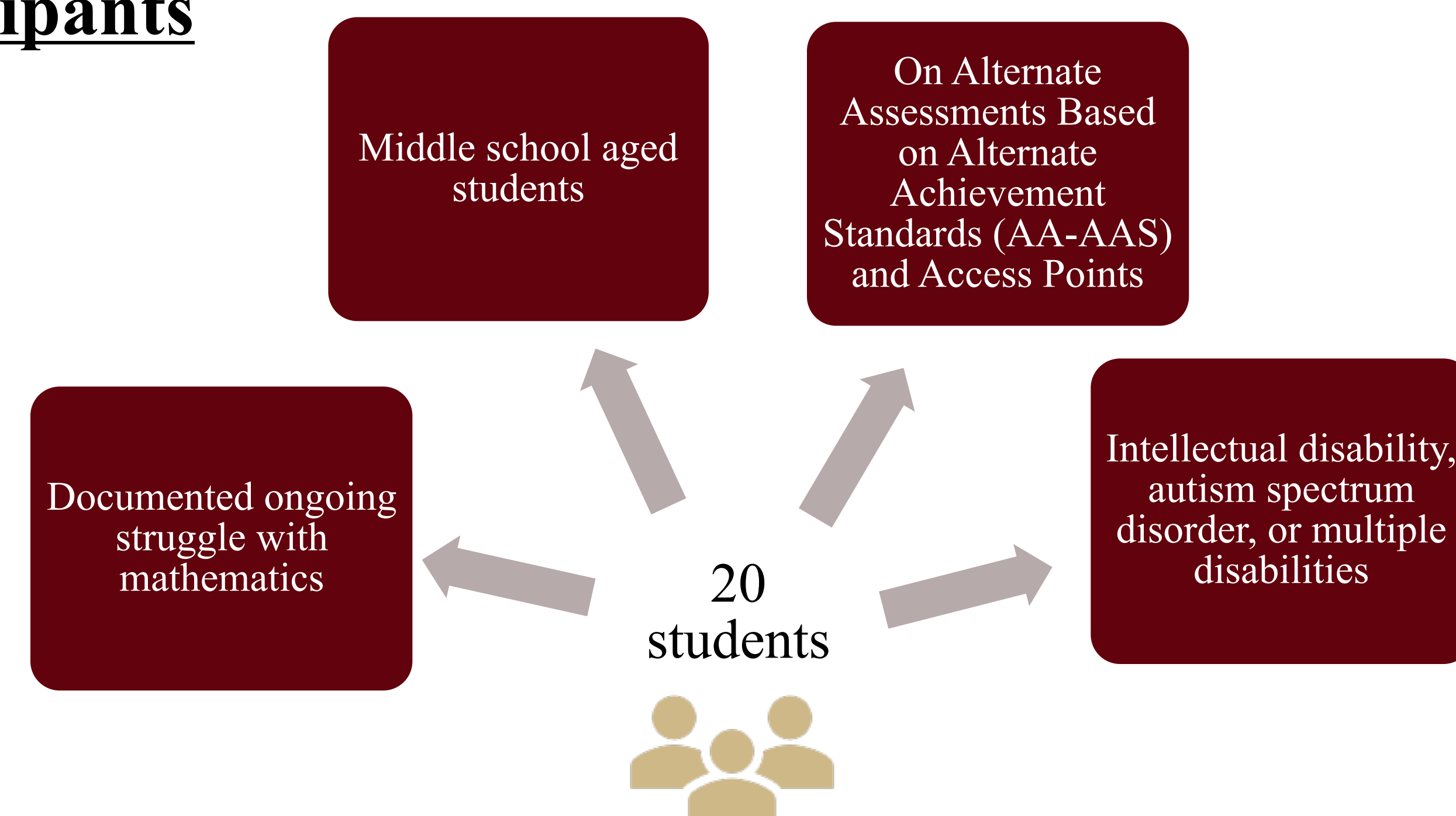


Participants & Setting

Location

Four middle schools in the Southeast region of the United States were involved in the study.

Participants



Method

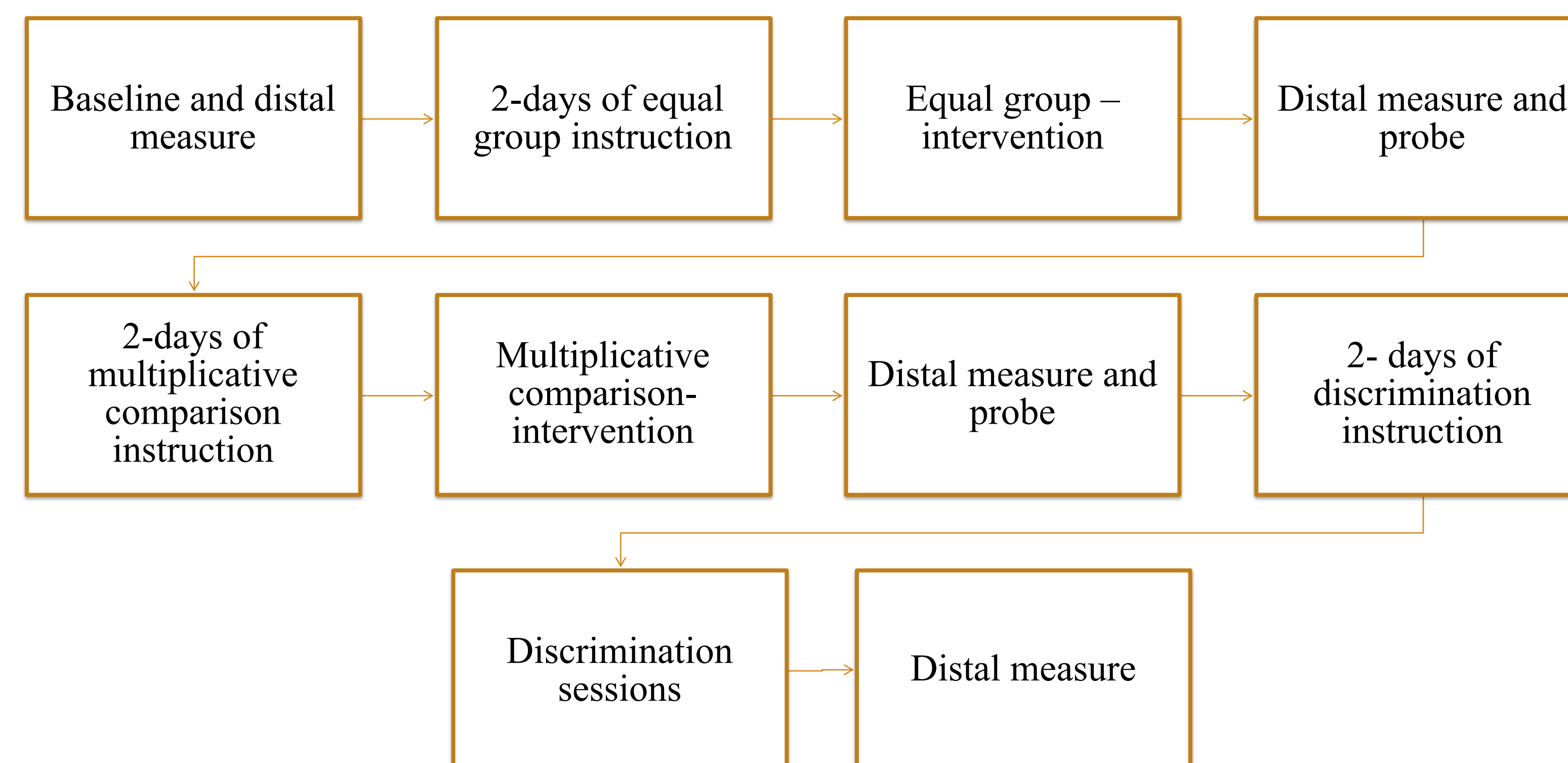
Materials

- Self-reflection folders
- Theme menu
- Worksheets
- Scripts
- Word wall
- Various instructional tools:
 - writing utensil
 - mini whiteboards
 - etc.

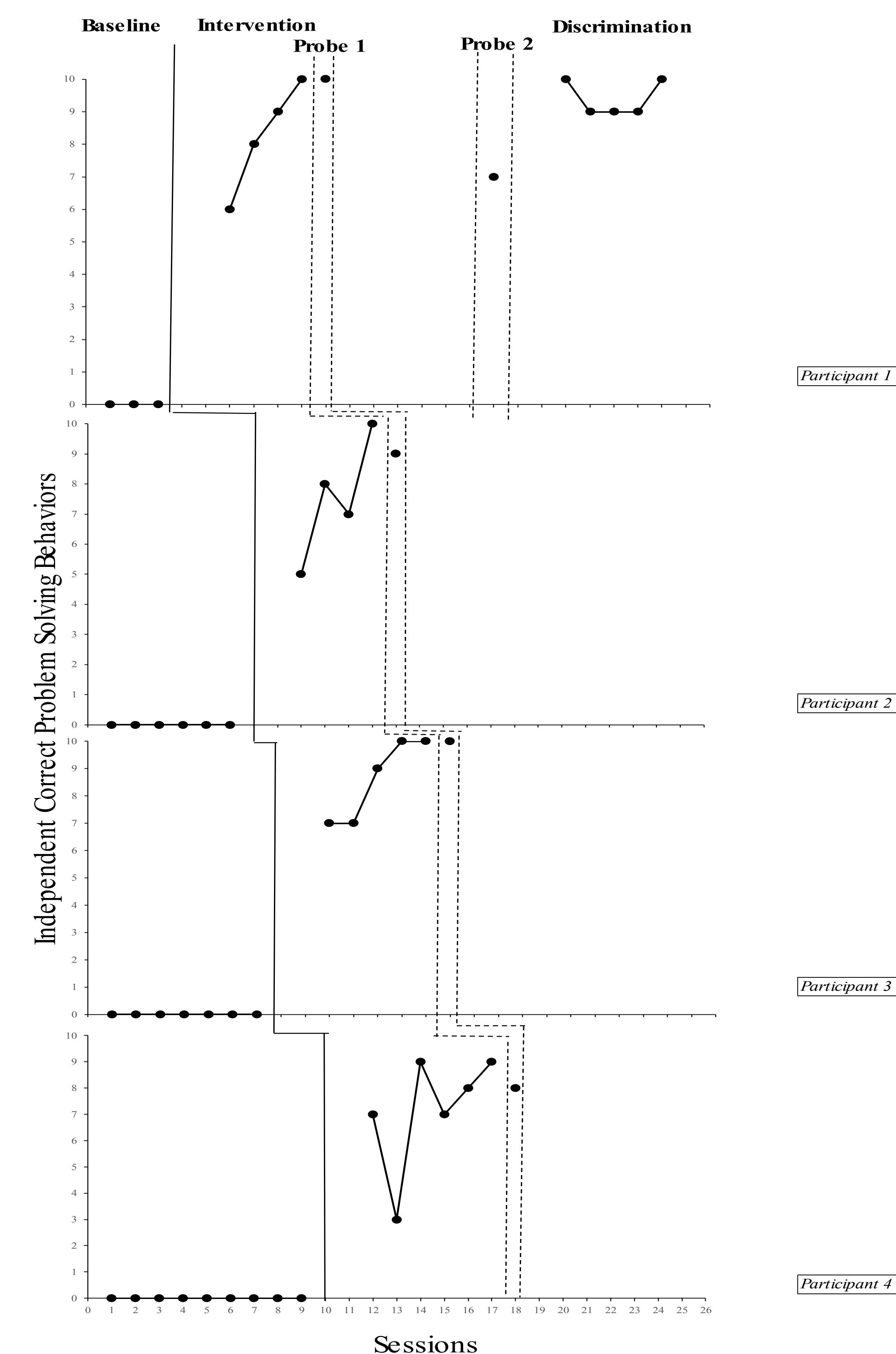
Intervention components

- Explicit instruction: Model, guided practice, independent
- Technology aided instruction (calculator, virtual manipulatives)
- Schematic organizer (i.e., graphic organizer)
- Task analysis
- Schema-based instruction

Procedures



Results



Limitations & Future Research

- Other classroom support providers as interventionist (e.g., peers, paraprofessionals)
- Teacher-delivered MSBI within naturalistic settings (e.g., whole group instruction)
- Evaluating the appropriate timing of progressing students from different phases of learning (acquisition, fluency, generalization, maintenance)
- Research of real-world generalization
- Maintenance of acquired skills

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