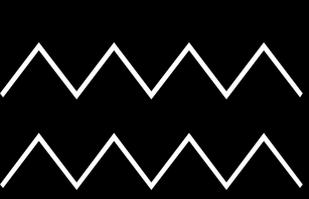# Data-Driven Decision Making in Special Education

Using Data to Improve IEP Quality, Instruction, and Student Outcomes

Session Objectives

- Understand data-driven decision making (DDDM)

- Identify appropriate data sources for IEPs

- Align PLAAFPs, goals, SDI, and progress monitoring

- Apply decision rules when progress is insufficient

Legal Foundation: IDEA & MARSE

- IEPs must be data-based

- Progress must be monitored and reported

- Instruction must be individualized

- IEPs must be revised when progress is insufficient

IDEA 34 CFR 300.320, 300.324 and MARSE R 340.1721e.

What Is Data-Driven Decision Making?

The process of using data (e.g., progress monitoring data)

To make instructional decisions, such as which students are struggling with mathematics

And, which level of instructional support would best meet those students' academic needs.

Data-Driven Decision Making

Intentional use of student data to:

- Identify needs
- Design instruction
- Monitor progress
- Adjust instruction and services

Collecting & Evaluating Data

- Step 1: Validated Intervention Program
  - Make the intervention more intensive through *quantitative changes* to the instruction that a student receives.
    - May increase amount of instructional time, or
    - Decrease group size
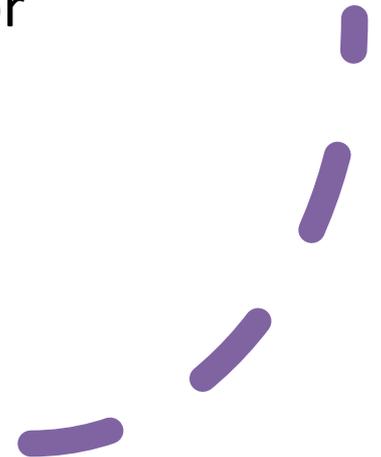
Collecting and Evaluating Data

- Step 2: Progress Monitor—The teacher collects [formative assessment](#) data to determine *how* a student is responding to the validated intervention program.

  - Ongoing academic evaluation during the learning process that informs instruction

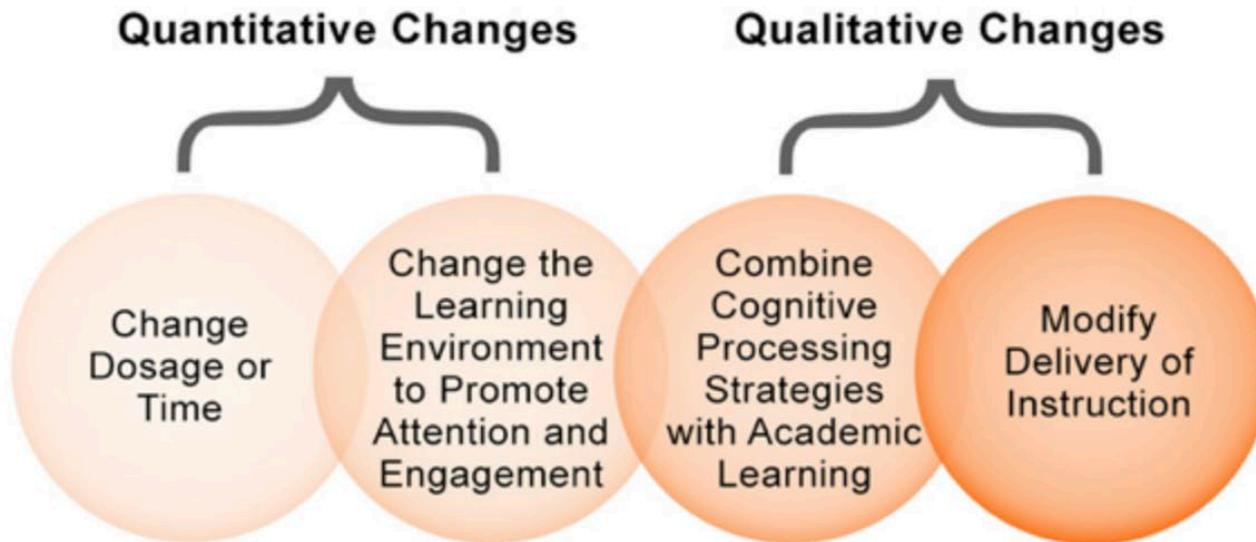 - Provides continuous performance feedback to students and instructors

Collecting and Evaluating Data

- Step 3: Diagnostic Academic Assessment—The teacher collects assessment data to determine *why* the student is not responding adequately to the validated intervention program.
  - Identify the skills or areas in which a student struggles
  - Make intervention adaptations that align with a student's needs

Collecting and Evaluating Data

- Step 4: Intervention Adaptation
  - Adapt the intervention based on the student's needs as determined by the diagnostic assessment.
    - the way in which content is delivered

Quantitative Changes   **Qualitative Changes**

Change Dosage or Time

Change the Learning Environment to Promote Attention and Engagement

Combine Cognitive Processing Strategies with Academic Learning

Modify Delivery of Instruction

Vaughn, et al., 2013

> Description

Collecting and Evaluating Data

- Step 5: Progress Monitor— The teacher collects formative assessment data to determine **how** a student is responding to the adapted intervention.
  - Identify students who are not responding adequately to instruction
  - Estimate a student's rate of improvement across time
  - Determine when an instructional change is needed

Progress Monitoring

General outcome measures GOM) are:

- Easy to implement
- Quick to administer
- Cost-effective
- Designed to be administered frequently (e.g., once per week)
- Sensitive to change in student performance

GOM is a type of formative assessment in which multiple related skills are measured on a regular basis to assess a student's performance on those skills across time.

Interactive Activity: Data or Not?

- Grades
- Assignment completion
- PSAT/SAT
- CBMs
- Work samples scored with a rubric
- Observations with criteria
- Teacher narrative

Answer Key

Item	Data for IEP Decision Making?	Why
Grades	❌ No (by themselves)	Reflect task completion and compliance, not skill acquisition
Assignment completion	❌ No	Activity-based, not outcome-based
PSAT / SAT	❌ No	Not designed for short-term progress monitoring or instruction
CBMs (e.g., fluency probes)	✅ Yes	Measures specific skills over time
Work samples scored with a rubric	✅ Yes	Shows performance on targeted skills
Observations with criteria	✅ Yes	Functional, measurable, repeatable
Teacher narrative only	❌ No	Lacks measurable evidence

If it doesn't measure a specific skill repeatedly, it's not progress monitoring.

Appropriate Data Sources

- Curriculum-Based Measures (CBMs)

- Skill probes

- Rubrics

- Observations with criteria

- Work samples

Using Data in the PLAAFP

Strong PLAAFPs include:	• Current data	• Strengths
• Specific deficits	• Interpretation of data	• Impact on general education

Data-Driven Goal Writing

Goals must:

- Be measurable
- Be based on baseline data
- Target a specific skill deficit
- Allow progress monitoring

Specially Designed Instruction (SDI)

- SDI:

  - Changes how instruction is delivered

  - Is explicit and systematic

  - Targets deficit skills

  - Is required by IDEA

Interactive Activity: SDI or Accommodation?

- Decide if each example is:
  - SDI
 - Accommodation
  - Supplementary Aid

Accommodation/Sup Aid or SDI?

- Extended time for assignments/tests
- Explicit instruction in decoding strategies
- Guided practice in solving multi-step math problems
- Small-group testing
- Systematic phonics instruction
- Preferential seating
- Modeling and prompting for written responses
- Direct instruction in self-monitoring behavior
- Repetition of directions
- Directions read aloud
- Repeated guided practice with immediate corrective feedback
- Visual schedule
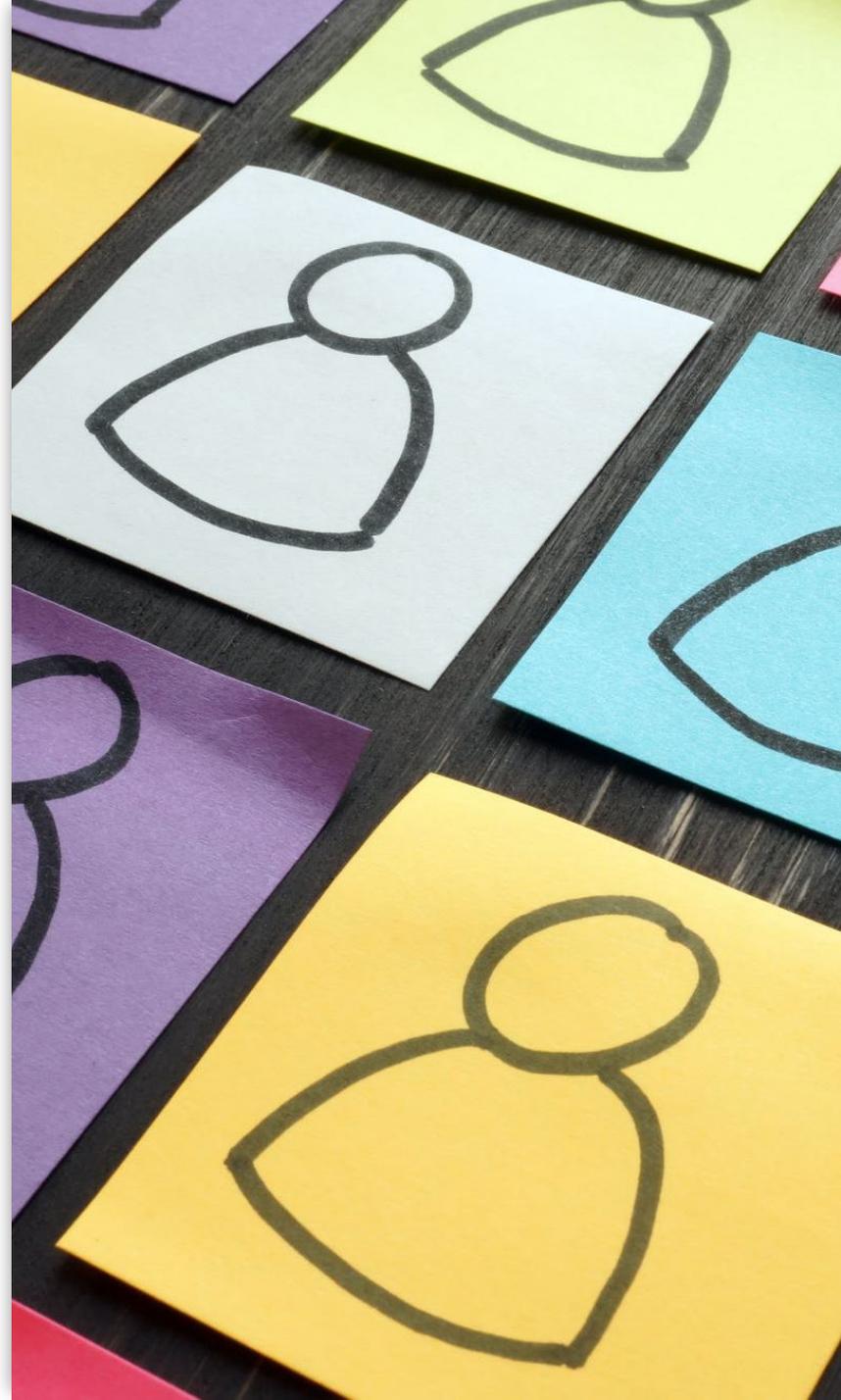
Progress Monitoring

- Progress monitoring must:
  - Measure skill growth
  - Be conducted regularly
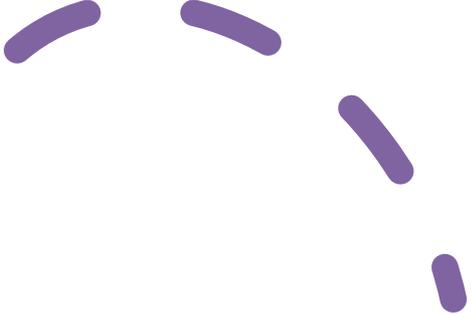 - Be documented
  - Inform instructional decisions
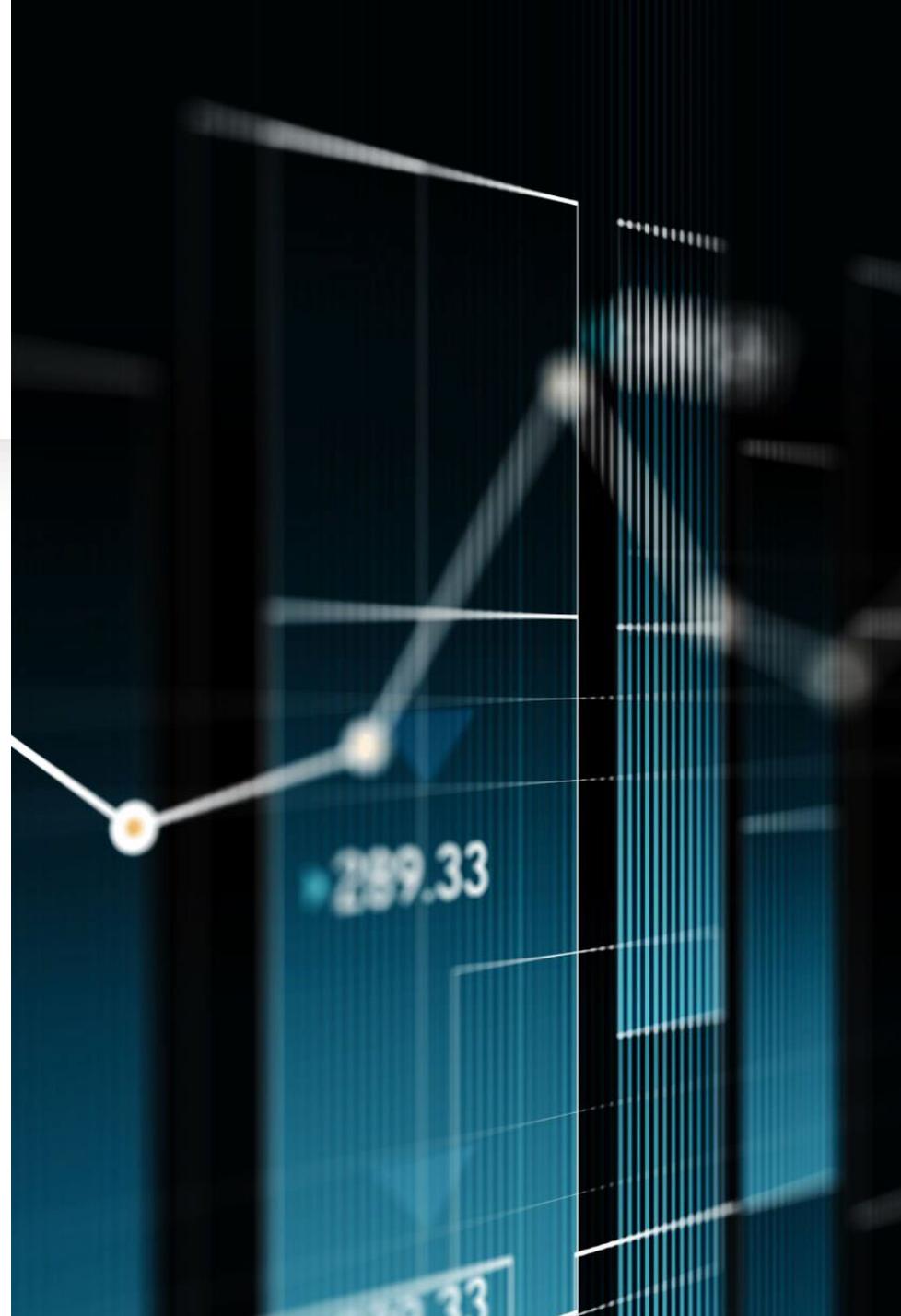
Activity vs. Outcome

Activity: Worked on assignment

Outcome: 60% accuracy on inferential questions

Decision Rules

- IF progress is insufficient:
  - Adjust instruction
  - Increase intensity
  - Change strategy
  - Revise the IEP

Collaboration and Data Use

- Teachers collect data
- Special educators analyze data
- Teams adjust instruction
- Administrators ensure systems

Common Barriers

- Lack of time
- Limited tools
- Inconsistent training
- No clear expectations

Reflection

What is one change you can make
to use data more effectively?

Key Takeaways

- Data drives instruction

- SDI must be explicit and individualized

- Progress monitoring is required

- Instruction must change when data shows limited progress

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