- Collecting and analyzing information
 - About the design
 - About the context
 - About implementation
 - About outcomes



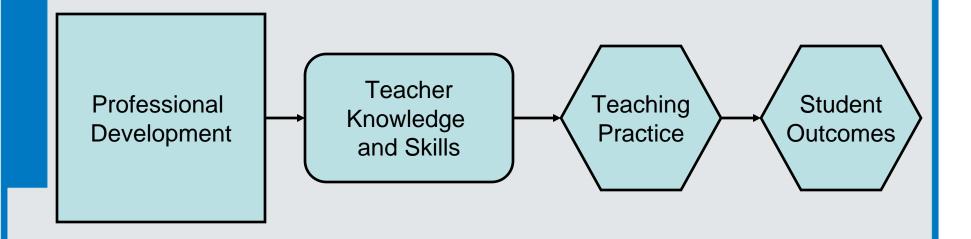
- Making decisions to improve the PD program
 - Mid-course adjustments
 - Redesigning for the future



- You may or may not have an external evaluator to help
- You have a responsibility for making decisions to improve the PD program
 - Mid-course adjustments
 - Redesigning for the future



Simplified Logic Model for Professional Development



Knowledge Management and Dissemination

- For example: Preparing PD providers
- How do you know if your preparation of PD providers worked as you intended?
- If you discovered limitations in the outcomes of their preparation...
 - What actions do you take now?
 - What adjustments do you make in the future?



Another Example of Continuous Improvement

You find that teachers are unclear about how to apply what they've learned in PD to the implementation of their instructional materials

- Now: Address this problem in follow up sessions; provide unit guides that scaffold teachers' application of the PD to implementation of their instructional materials
- In the future: Use the unit guides in PD from the beginning; examine the instructional materials in PD to identify specific applications of the PD in practice



Another Example of Continuous Improvement

You learn that in their teacher evaluations, principals are emphasizing practices that run counter to your vision of effective instruction

- Now: Get on the agenda of the principals' regular meeting; share an overview of the PD and a video of classroom practice as an opportunity to consider how the practices promoted by the PD might be evaluated
- In the future: Add a component to the program for principals that includes them in developing/buying into the vision of effective instruction and identifying implications for their work



Measures of TCK

 MSP-KMD has developed a searchable, on-line, database with information about instruments used to assess teacher content knowledge (mathematics and science, K–12).

 The database currently contains summaries of 144 instruments.



Can Search By:

- Content area
- Grade levels
- Nature of instrument, e.g.,
 - Any multiple-choice/constructed response assessments
 - Assessments that include a scale score with information about reliability and validity
 - Interview protocols
 - Observation protocols



Subject				
Limit to:				
Instruments that measure teachers' knowledge of mathematics				
Further limit to:				
☐ Algebra				
🔲 Data Analysis, Statistics, & Probability				
☐ Geometry & Measurement				
■ Number & Operations				
Mathematical Processes (e.g., problem solving, proof, representations)				

Knowledge Management and Dissemination NSF MSP

Center for the Study of Mathematics Curriculum

Curriculum Research/Evaluation Tools Database

http://www.mathcurriculumcenter.org/ InstrumentDatabaseNew.php

Assessments, Artifact Collections, Observations, Interviews, Surveys

(many for science as well as mathematics)



Alternative Approaches to Evaluating STEM Education Partnerships

http://sp.mspnet.org/

Education Partnerships: Defining, Observing, Measuring and Evaluating

Finding Value and Meaning in the Concept of Partnership

Rotating Concurrent Breakout Sessions

- See Tab 5 of your binder for your group assignment
 - Each individual will go to 3 breakouts
 - Teams have been split so each team will attend all six.



Rotating Concurrent Breakout Sessions

 See Tab 5 of your binder for your group's schedule.



	Group A	Group B	<u>Group C</u>	
Concurrent Session 1	Monroe	Harrison	Jackson	
Concurrent Session 2	Jackson	Monroe	Harrison	
Concurrent Session 3	Harrison	Jackson	Monroe	
	Comment D	C F	Carana E	
Concurrent Session 1	Group D Madison	Group E Wilson	Group F Van Buren	
Concurrent Session 1	Wiadison	W IISOII	van buren	
Concurrent Session 2	Van Buren	Madison	Wilson	
Concurrent Session 3	Wilson	Van Buren	Madison	Knowledge Management
				Dissemination NSF MSP

Lunch is in Lincoln Hall

The first breakout starts at 1:00 pm

