Michigan's Focus Networked Improvement Community

Monica P. Bhatt

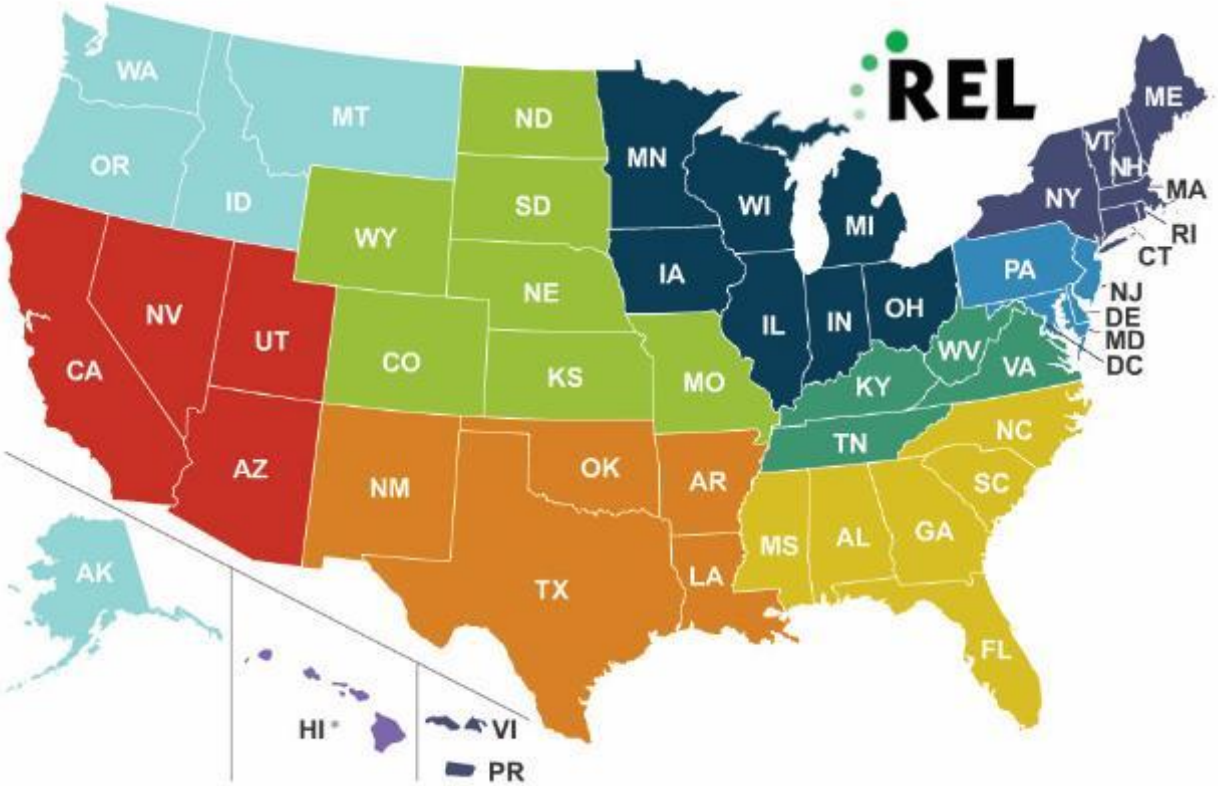
02 / 17 / 16

REL MIDWEST
Regional Educational Laboratory
at American Institutes for Research

Agenda

1.	Overview and History of the Michigan Focus Networked Improvement Community
2.	Forming a Networked Improvement Community
3.	Identifying a Problem
4.	Developing a Theory of Action
5.	Measuring Progress Through Plan-Do-Study-Act Cycles
6.	Next Steps: Moving Toward Sustainability

Regional Educational Laboratories

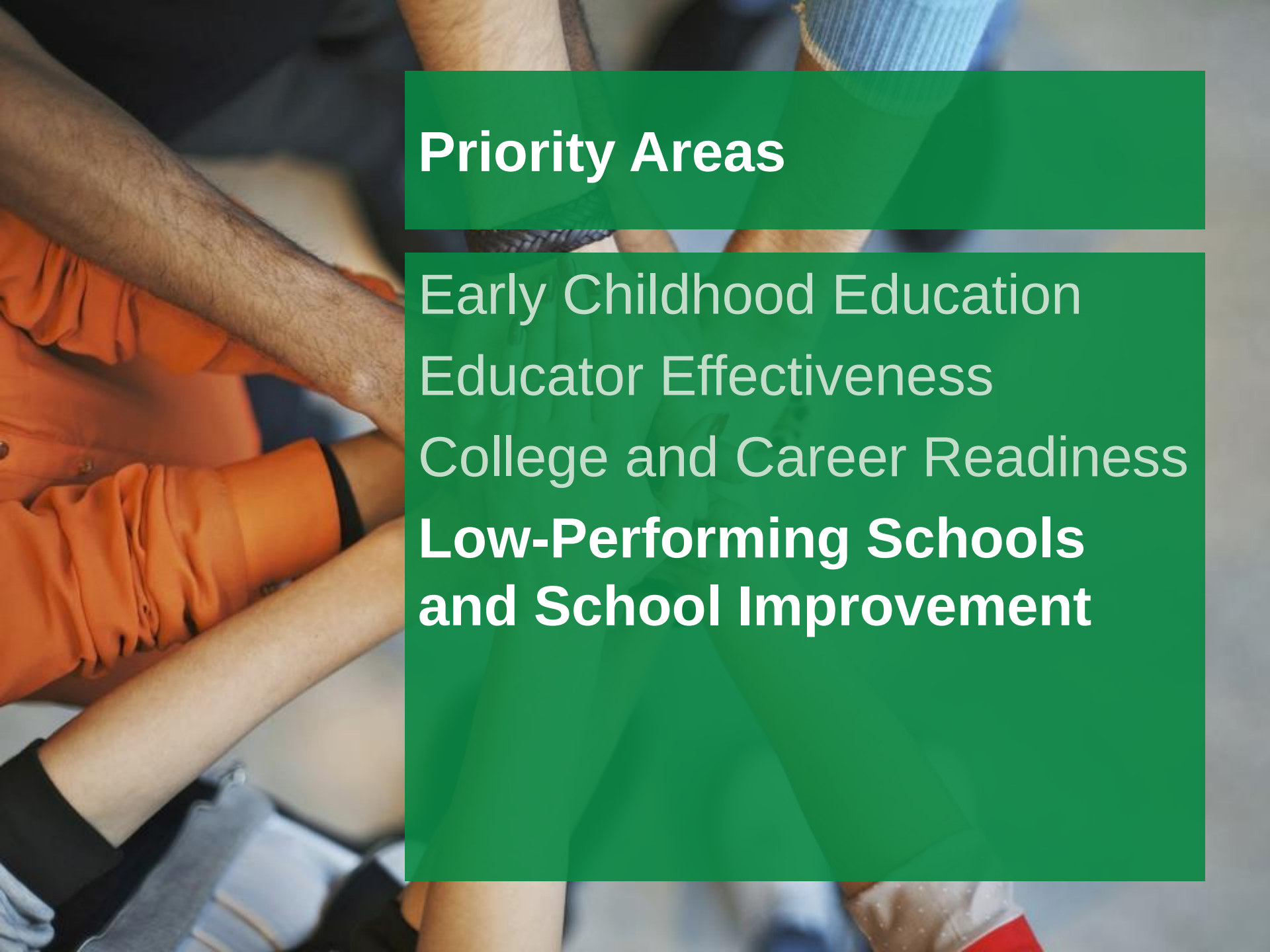


- Appalachia
- Central
- Mid-Atlantic
- Midwest
- NE & Islands
- NW
- Pacific*
- SE
- SW
- West

* The Pacific Region contains Hawaii, pictured on the map, and American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, & Yap), Guam, the Republic of the Marshall Islands, & the Republic of Palau, not pictured on the map.

Research Alliances

College and Career Success
Dropout Prevention
Early Childhood Education
Educator Effectiveness
Rural
School Turnaround
Urban
Virtual Education



Priority Areas

Early Childhood Education

Educator Effectiveness

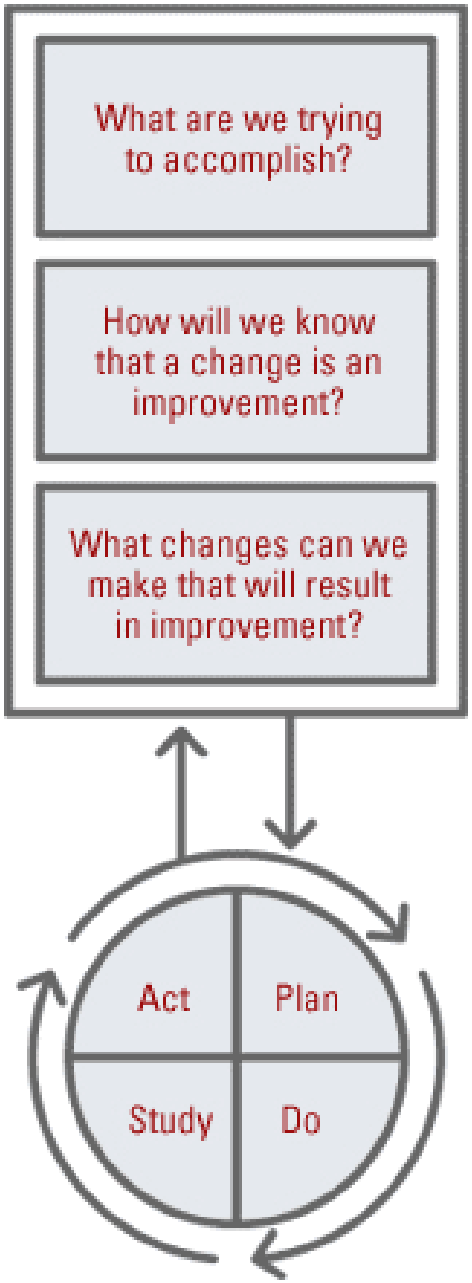
College and Career Readiness

Low-Performing Schools and School Improvement

Who,
What,
When,
Where,
Why?

Networked Improvement Community (n.):

Individuals or organizations that use systematic inquiry to improve practice



“Rather than asking whether an ‘intervention works,’ a network improvement community asks, ‘What works, when, for whom and under what sets of circumstances?’”

— Bryk, Gomez, & Grunow, 2015

In Michigan…

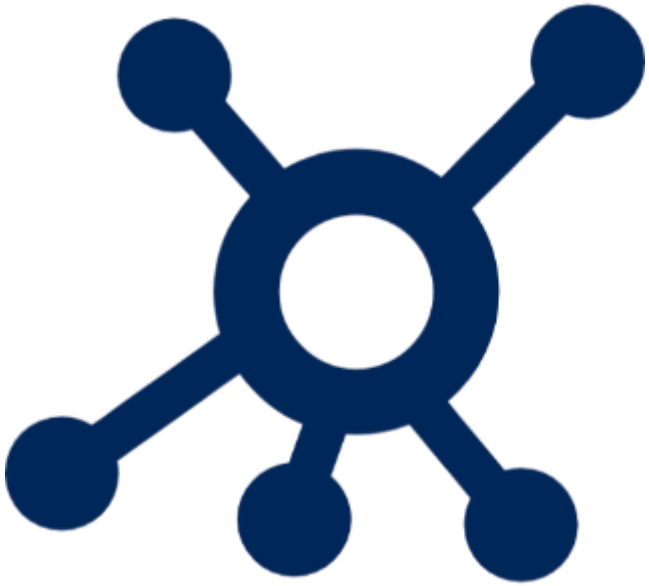
We can use a networked improvement community (NIC) to:

- **Refine supports** for Focus schools
- **Learn from changes to supports** in varied contexts
- **Use data to drive improvement** in practice

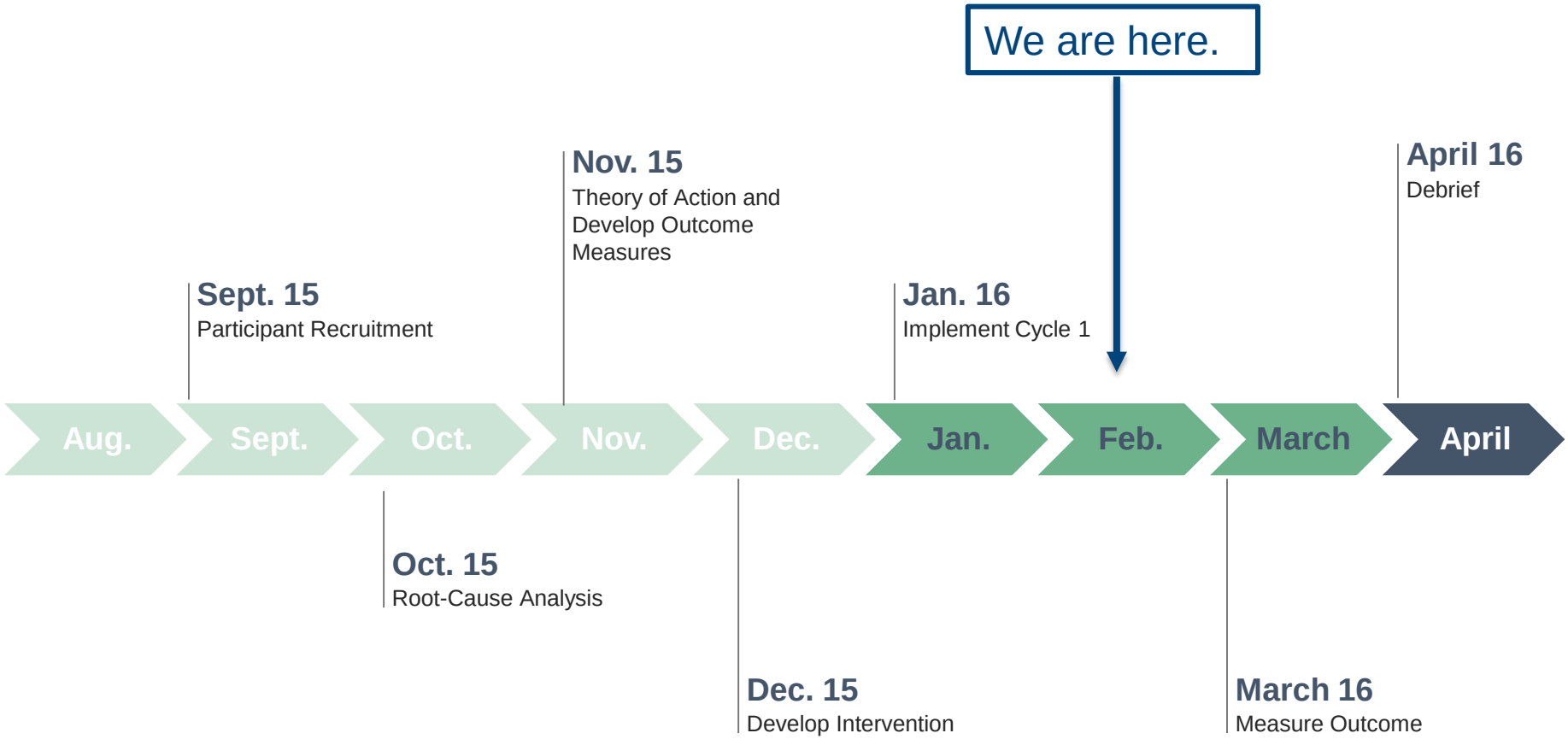
Who is at the table?

What are we trying to accomplish?

1. Develop an improvement community.
2. Improve mathematics fluency for focus students.



Michigan's Focus NIC: Timeline

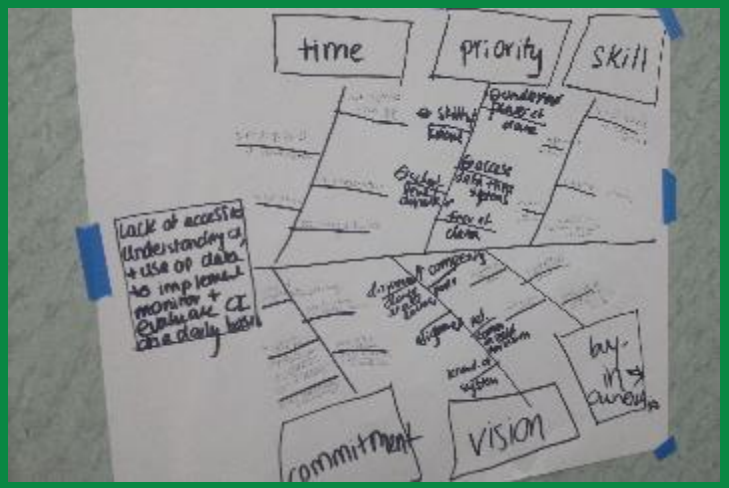


How?

Michigan Focus NIC Approach

Identifying a Problem.

Focus NIC Meeting: Root-Cause Analysis October 20, 2015

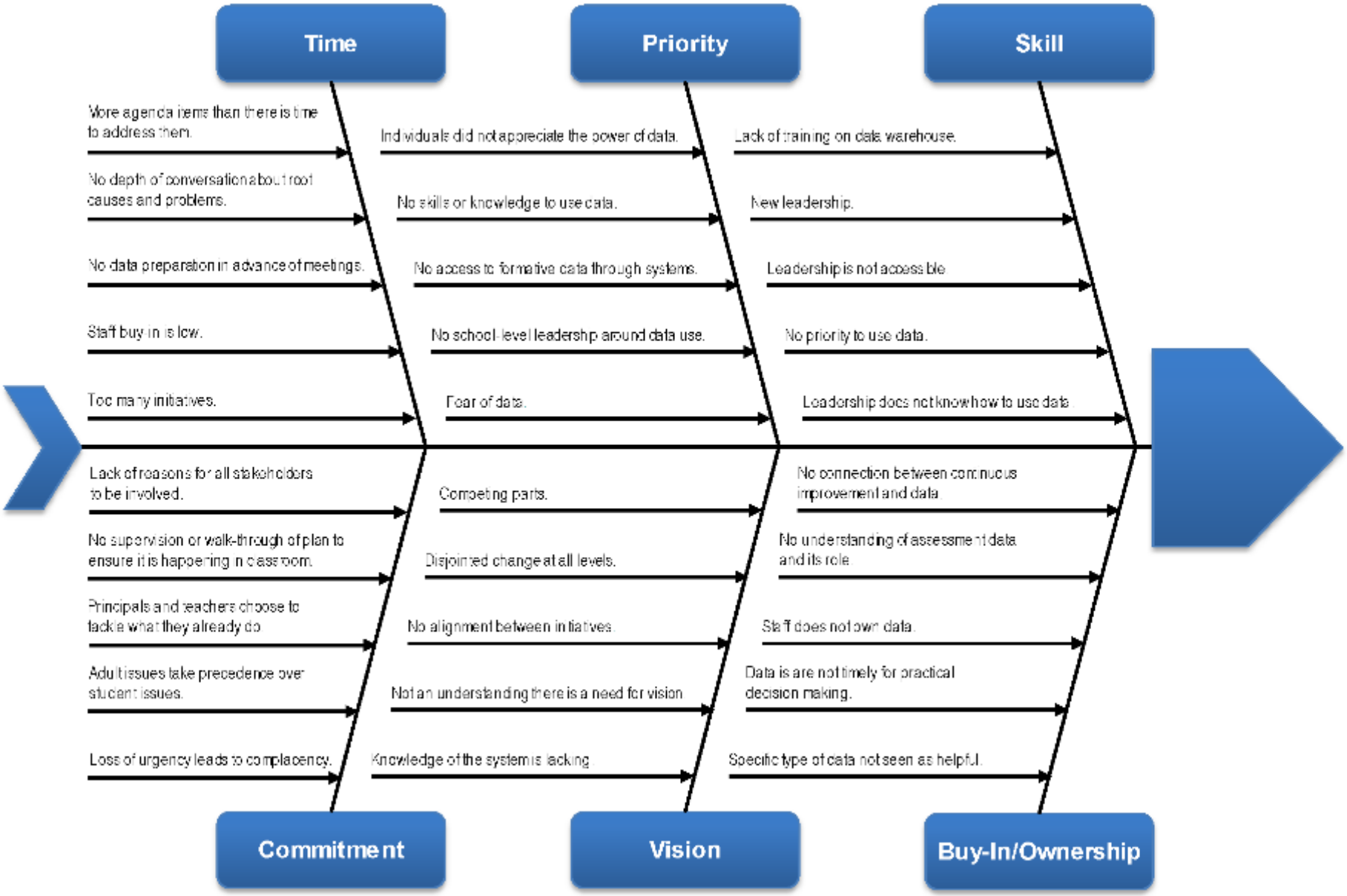


Participants:

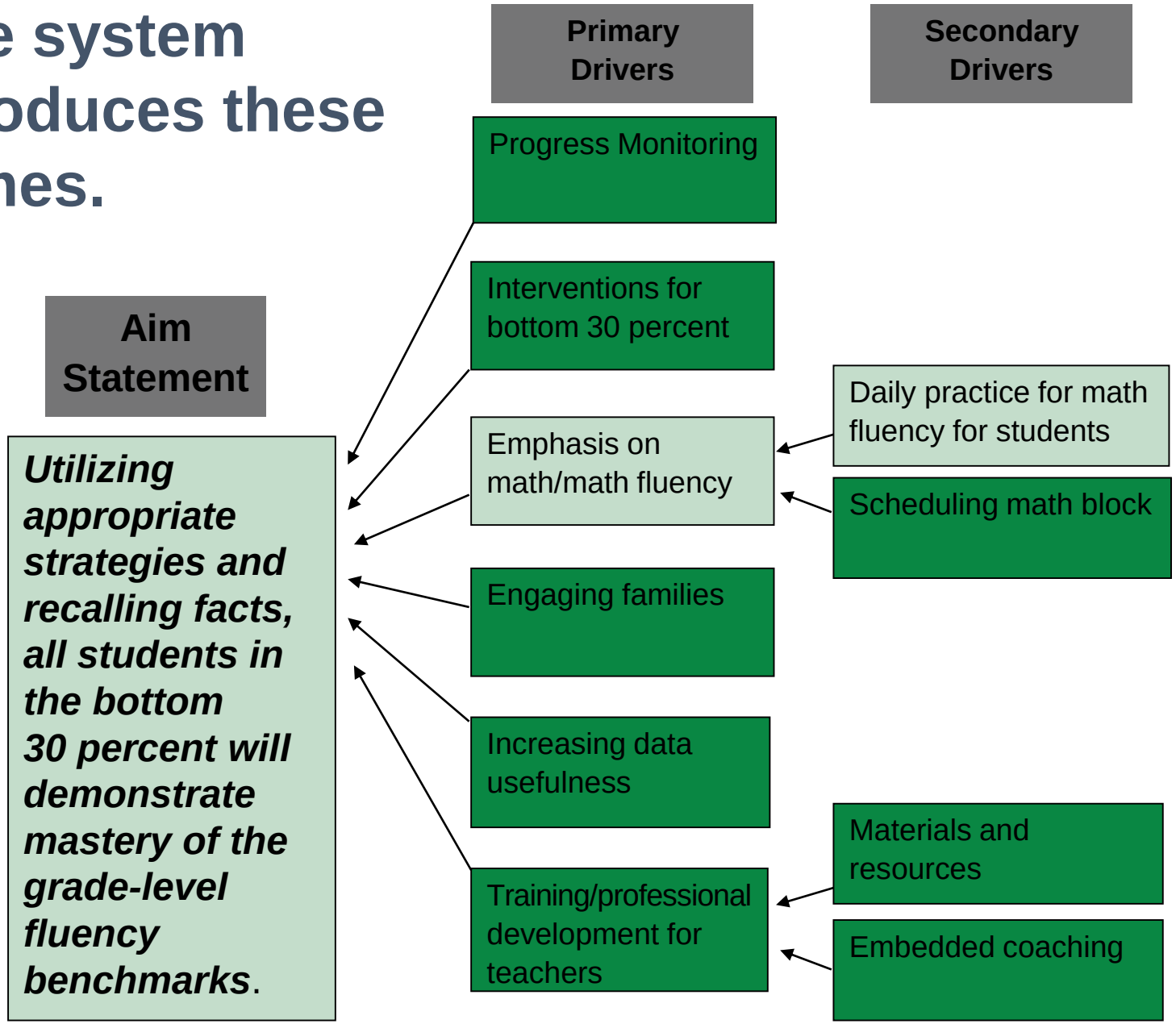
- School principals
- Central office representatives
- ISD representatives
- Michigan Department of Education staff
- REL Midwest staff

In the first meeting of the Focus NIC, members worked together to:

- Conduct a root-cause analysis
- Develop a problem statement: *"Lack of access to, understanding of, and use of data to implement continuous improvement on a daily basis*"
- Brainstorm interventions that can improve data-utilization skills among school staff


Time
Priority
Skill
More agenda items than there is time to address them.
No depth of conversation about root causes and problems.
No data preparation in advance of meetings.
Staff buy in is low.
Too many initiatives.
Individuals did not appreciate the power of data.
No skills or knowledge to use data.
No access to formative data through systems.
No school-level leadership around data use.
Fear of data.
Lack of training on data warehouse.
New leadership.
Leadership is not accessible.
No priority to use data.
Leadership does not know how to use data.
Lack of reasons for all stakeholders to be involved.
No supervision or walk-through of plan to ensure it is happening in classroom.
Principals and teachers choose to tackle what they already do.
Adult issues take precedence over student issues.
Loss of urgency leads to complacency.
Competing parts.
Disjointed change at all levels.
No alignment between initiatives.
Not an understanding there is a need for vision.
Knowledge of the system is lacking.
No connection between continuous improvement and data.
No understanding of assessment data and its role.
Staff does not own data.
Data is are not timely for practical decision making.
Specific type of data not seen as helpful.
Commitment
Vision
Buy-In/Ownership

See the system that produces these outcomes.



Developing a Theory of Action.

Theory of Action

Program Inputs	Program Activities	Program Outputs	Outcomes
• **Teacher logs to track daily math practice of fluency skills** • **Implementation guide developed by Focus NIC** • **Observation protocol developed by Focus NIC** • **Principal guidance, coaching, and support to math teachers** • **RocketMath kits (Ingham) or workstations (Kalamazoo)** • **District math coach** • **District and ISD-level math fluency professional development and support**	• Identify bottom 30% of students • Teachers track Focus students' ability to practice math fluency skills for at least 15 minutes every day using daily logs • Bimonthly walk-throughs using observation protocol • Ongoing coaching and data use • Daily teacher logs	• Increased time for students spent on practicing math fluency skills • Increased time spent discussing math fluency between teachers and between teachers and principal • Increased math fluency emphasis	• Increased percentage of all students mastering math fluency benchmarks by May 2016 • Improved math fluency of the bottom 30% of students specifically

Program Targets: Mathematics teachers in Ingham ISD and KRESA who teach in Focus schools participating in the NIC. All students in mathematics classrooms in Focus schools participating in the NIC, with an emphasis on the bottom 30 percent of students.

Program Goal: All students will master fluency benchmarks by demonstrating appropriate strategies and recalling facts.

Measuring Outcomes.

1. Teachers track Focus students' math fluency practice.

Math Fluency Practice Daily Log—Template

Instructions: First, enter the dates of interest in the Week column. Each day, complete the log by checking or circling "Yes" if students in the bottom 30 percent had the opportunity to practice mathematical fluency skills that day, or by checking or circling "No" if students in the bottom 30 percent did not have the opportunity to practice mathematical fluency skills that day.

Week	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY	
Ex: 1/11–1/15	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No

2. Observe teachers every two weeks.

REL MIDWEST
Regional Educational Laboratory
at American Institutes for Research

Mathematics Fluency Principal Observation Protocol

Date	
Teacher	
Grade level	
School	
Substitute: yes/no	

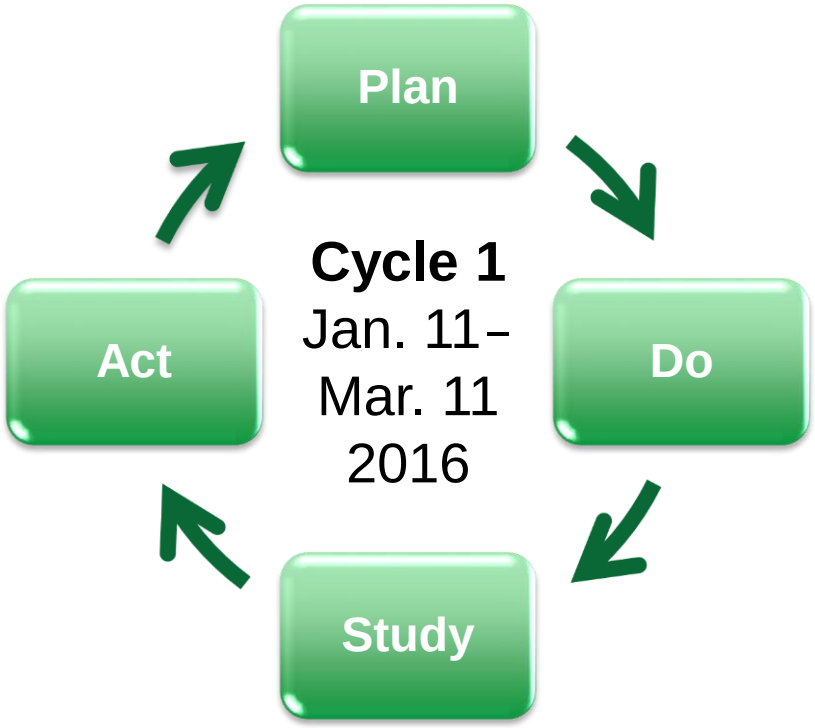
Core (Tier 1) vs. intervention (Tier 2)	
Length of observation	
Length of mathematics fluency work	
Percentage of Focus students observed	

	Observation notes	Implementation score (Circle one)
Students are engaged in mathematics fluency skill building.		<50% engagement = 0 50–75% engagement = 1 >75% engagement = 2
Students have the necessary materials		<50% engagement = 0 50–75% engagement = 1 >75% engagement = 2
Students exhibit routines and procedures regarding work and transitions.		<50% engagement = 0 50–75% engagement = 1 >75% engagement = 2
Students practice mathematics fluency for at least 10 minutes.		<50% engagement = 0 50–75% engagement = 1 >75% engagement = 2
Students can articulate learning objective.		Not acceptable = 0 Acceptable variation = 1 Fully implementing = 2
Students receive corrections or descriptive feedback.		Not acceptable = 0 Acceptable variation = 1 Fully implementing = 2

3. Focus NIC participants measure students' performance on math fluency benchmarks.

Implement Continuous Plan-Do-Study-Act Cycles.

Plan: Identify bottom 30% of students on math fluency and develop plan to increase ability of teachers to improve math fluency.



Act: Focus NIC will monitor student progress and adjust goals or practices as needed.

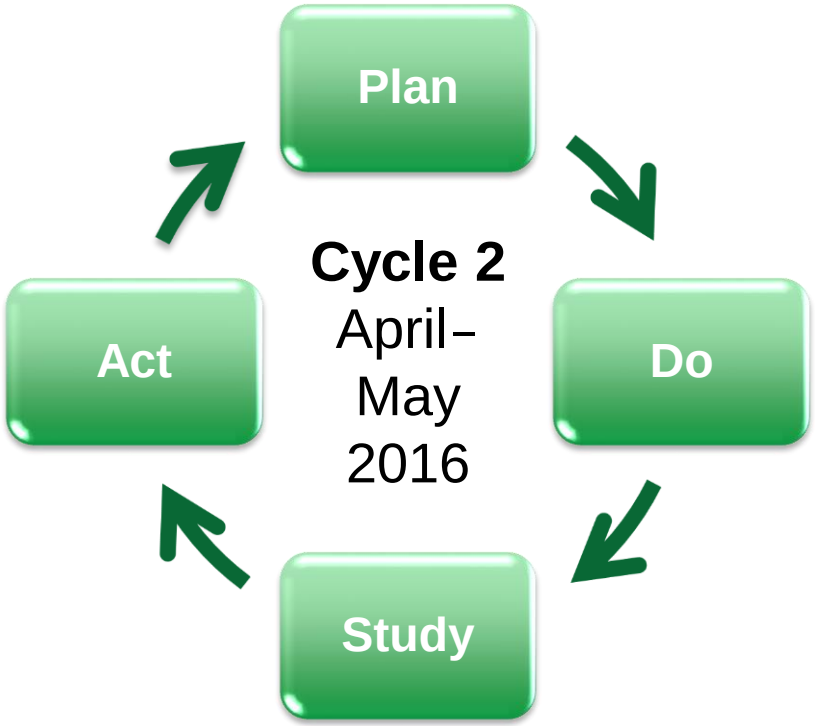
Do:

- RocketMath/ Workstations
- Daily teacher logs
- Principals observations
- District math coach
- Professional development

Study: Assess daily teacher logs, walk-throughs, and other metrics. Review challenges and lessons learned.

Plan: Examine benchmark and assessment data to increase math fluency for bottom 30% of students and determine long-term goals, plans, and timeline of the Focus NIC.

Act: Focus NIC will monitor student progress and adjust goals or practices as needed.



Do:

- Assess teacher log data, walk-through assessments
- Discuss challenges and lessons learned

Study: Examine midyear MAP and AIMSweb scores. Seek to develop alternate tools to assess student math fluency outcomes and develop long-term metrics and goals for Focus NIC.

Richmond Elementary*

*Name changed to protect our participants.

How were students identified?

1. NWEA MAP math assessment results from December 2015.
2. The results were sorted for each grade based on the Number and Operations category.
3. Then, the bottom 30 percent (approximately) for each grade was identified.
4. Those lists were given to classroom teachers and resource room teachers, who then tracked the math fluency practice.

Intervention participants

Bottom 30 Percent of Students (Focus Students):

- 2nd grade – 25 students
- 3rd grade – 22 students
- 4th grade – 16 students
- 5th grade – 22 students
- Some of the students have individualized education programs and some are English language learners.

Math teachers:

- 10 teachers
- Six 2nd- and 3rd-grade general education teachers, one 4th- and one 5th-grade departmentalized teacher, and two resource room teachers

Feedback

- **Teachers have been successful with their logs.** However, there was a snow day during the first week. Also many teachers had substitutes on one or more days for a variety of reasons. It was an inconsistent first week.
- **Teachers are supportive of the process.** This first week coincided with the start of a math coach. There were many discussions on what constitutes math fluency practice.
- **Success** – The awareness of documented daily practice
- **Challenge** – Trying to verify practice when a substitute is in the room

What’s Next?

Thinking about sustainability.


How can you use these tools in your work?
How can we involve this group in sustaining our efforts?

Monica P. Bhatt

mbhatt@air.org
Researcher
REL Midwest