

# Coaching in the Early Mathematics Education(EME) INNOVATIONS Project

I3 Learning Community Kick-Off Meeting

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# EME Innovations Program


## Objective

To help students reach or exceed Illinois' Learning Standards for Mathematics by designing and implementing a *professional development program* for teachers of high-needs children in pre-kindergarten through third grade

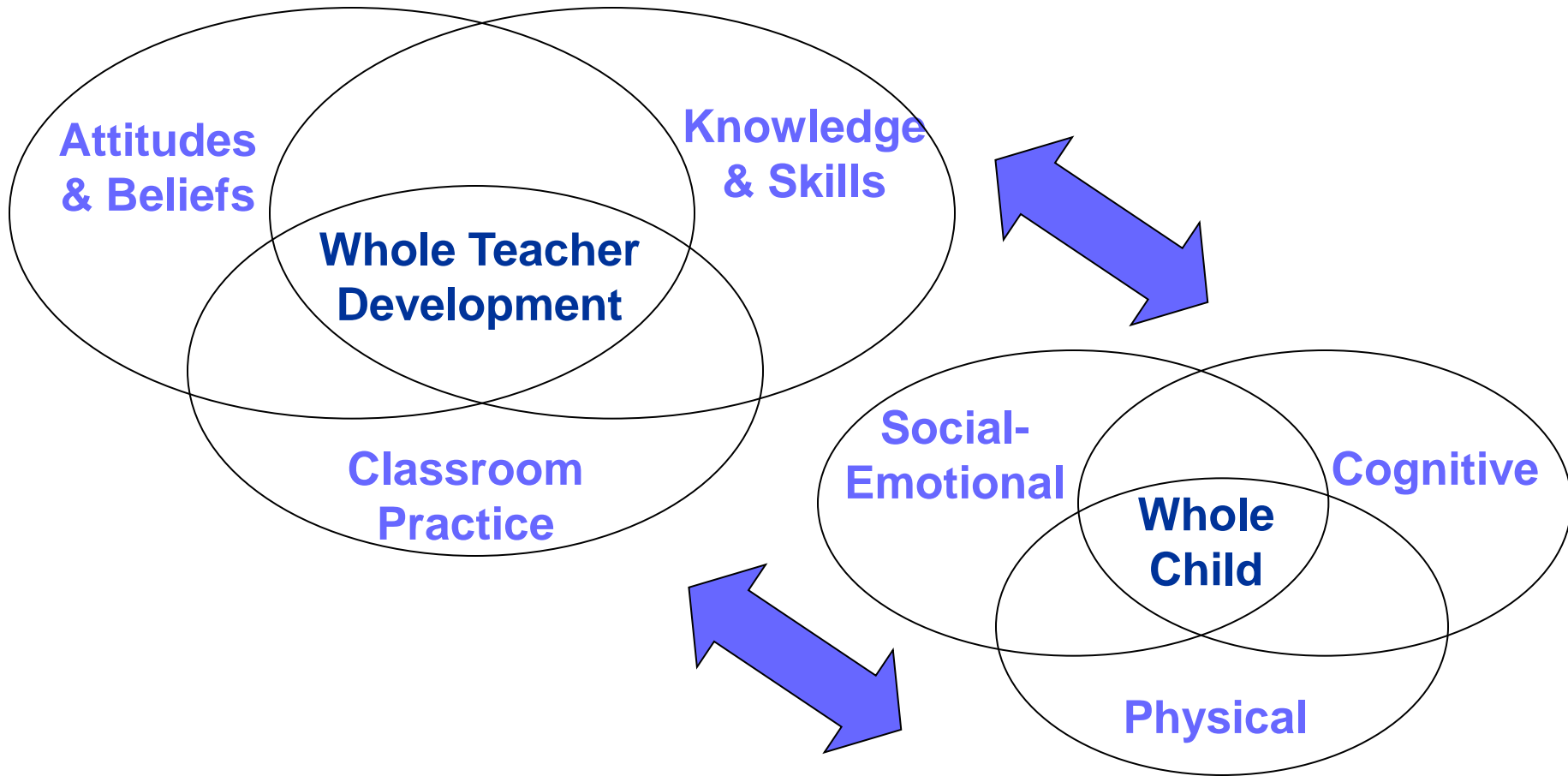
# EME Innovations Program Basics

- **Participants:** Approximately 80 PreK-3 teachers and 3,680 students from 8 Chicago public elementary schools
- **Duration:** 5 years: Y1 will be the preparation year, and the intervention will take place from Y2 to Y5.
- **Intervention components:**
  1. Learning labs
  2. Individualized Coaching
  3. School-based groups
  4. Guided classroom implementation


# Perspectives on Our Coaching

- Conceptual Framework – Whole Teacher Approach
  - Role of Coaching
  - Challenges
    - In Deployment
    - In Access to Teachers
    - In Information Sharing and Technology
    - In Structural Support
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# Conceptual Framework: Whole Teacher Approach



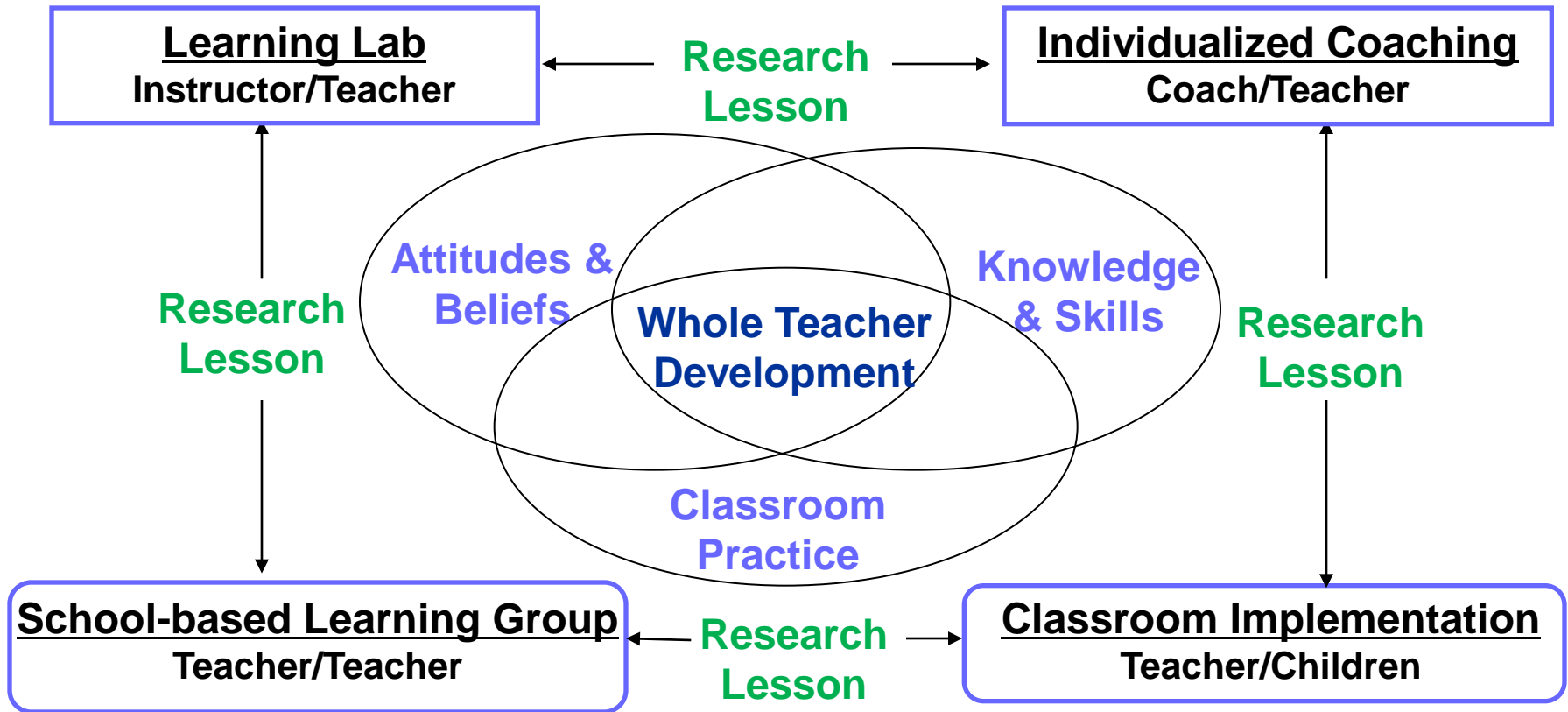
# Goals for Teachers

- increased *confidence* in their math teaching and *interest in/excitement about* mathematics
  - deeper, richer, more connected *understanding of* foundational *mathematics concepts*
  - enhanced *skill* in planning teaching, delivering curriculum, and assessing children's understanding of mathematics
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# Coach's Role in EME Innovations

- Attend learning labs at Erikson alongside their teachers (6 x year)
  - Provide school-based individual coaching to each of their teachers (6 cycles/year)
  - Facilitate grade-level meetings at schools among their teachers (5 x year)
  - Facilitate school-wide meetings and lesson study in years 3 and 4
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# Program Components and Conceptual Framework







# Challenges in Coaching Deployment

- Large Spanish-speaking population in schools means our bi-lingual coaches are needed in many places
- Math content focus makes it more difficult to coach across a broad range of grade levels

# EME Innovations Deployment Plan

- Coaches are deployed at schools in teams of two or three
  - Each coach specializes in either PreK-1<sup>st</sup> or 2<sup>nd</sup>-3<sup>rd</sup> grade and has a caseload of 10 to 14 teachers, located at two schools
  - Two coaching supervisors (who are also instructors) take a small caseload
  - Spanish-speaking coaches provided to those classrooms where math is taught in Spanish
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# Administrative Structures and Supports for Deployment

- Training in coaching model
  - Twice monthly group supervision – 2.5 hours (math content and coaching)
  - Twice monthly individual supervision – 1 hour (includes observed coaching)
  - Monthly supervision to school-based teams
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# Challenges in Access to Teachers

- Elementary and early childhood teachers have little to no time allotted for planning/preparation
  - Funds allotted for substitute teachers
- Math lessons often delivered in afternoon
  - Upfront agreements with principals to allow scheduling flexibility

# Information Challenges and Technological Supports

- Need to make teacher observations more “objective”
  - Videotaping Support
- Instructor team needs more information about what is happening at schools
  - XOOM tablets and online database to upload video and fidelity of implementation data

# Structural Challenges in Individual Coaching

- Model was too loose – teachers needed more initial guidance
    - Research lesson provides basic lesson plan for quality mathematics teaching
    - Coaches have a lesson to implement and study with one another prior to coaching
    - Teachers have a shared classroom-based teaching experience to discuss
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# Goal Focused Coaching in Success for All:

Nancy A. Madden  
Success for All Foundation



***Success for All*** is a proven whole school improvement approach that helps teachers help every child succeed.



# Ten Tools for Coaching

- Buy-in for change
- Introductory workshops
- Supportive detailed daily lesson guides or process guides
- Peripheral vision professional development
- Full-time facilitator support
- Component team meeting structures
- Telephone support
- Online resources, tutorials, and webinars
- **Onsite GREATER coaching**
- Quarterly progress review

# GREATER Coaching

Set a student centered **G**oal.

Describe the current **R**eality.

**E**xplore the resources and tools.

Define **A**ctions needed.

Establish a **T**imeline.

**E**valuate progress.

**R**enegotiate.

# Goal: Increasing Comprehension Monitoring

90% of 5<sup>th</sup> graders will score 90 on the clarification rubric by the end of the fourth week of the second quarter.

# Reality

Students don't understand the clarification strategy.

Teams don't provide feedback to prepare teammates.

# Exploration, Action, Timelines...

Model use of clarification.

Support peer feedback during teamwork.

Use Random Reporter to hold students accountable.

Celebrate success.

# ...Evaluation and Renegotiation

75% of students scored at 90 on the rubric.

Random Reporter was missing.

(95% at week 8.)

# Ten Tools for Coaching

- Buy-in for change
- Introductory workshops
- Supportive detailed daily lesson guides and process guides
- Peripheral vision professional development
- Full-time facilitator support
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- Telephone support
- Online resources, tutorials, and webinars
- **Onsite GREATER coaching**
- Quarterly school-wide progress review and goalsetting

# Coaching for School-wide Change

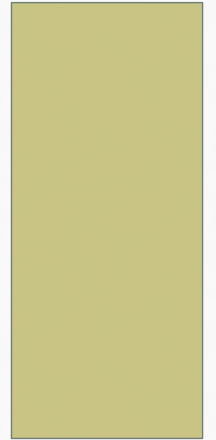
- \* Strategies for growth are proven to work and chosen by the staff.
- \* Accepted classroom and whole school measures guide teacher to teacher and teacher to coach collaboration.
- \* Goal setting and celebration are schoolwide.
- \* Student success is visible.



# SFAF Coaches

- \* Spend a total of 26 person days onsite in the first year of an implementation, 16 in the second year and 10 in the third year for specific site.
- \* Are usually teachers or principals from Success for All schools. SFAF has a field staff of 100 spread across the country.
- \* Spend 100-120 days in onsite service, the rest off-site (including travel).
- \* Are all involved in coaching plans for their own continuous improvement.

DEVELOPING AND  
SUSTAINING COACHING  
AT-SCALE



# FACTORS TO CONSIDER FROM DEVELOPMENT TO FULL-SCALE IMPLEMENTATION

- Theories of change
- Fidelity at scale
- Efficiency
- Sustainability

# THEORIES OF CHANGE

- Move from coaching on our model/curriculum/etc > improved practice
- To the **specific elements** of coaching that lead to improved practice
- Ultimately what happens during coaching that is responsible for changes in practice?
  - Relationship based approach – combined with knowledge and expertise
  - Specific elements of the content of coaching
    - Exposure to examples of good practice
    - Watching self teach

# FIDELITY

- Clarity in your coaching model - manualization
  - Who
  - What
  - How
  - When
- Ongoing monitoring of fidelity and training/support across elements that are most central to your theory of change
  - What gets measured gets done

Percent of Cycles Focused on Each CLASS Domain

Coach	Number of Teachers	Total # Cycles – Mean (SD)	Cycle Fidelity Rating – Mean	Emotional Support	Classroom Organization	Instructional Support	Literacy Focus
1	8	9.25 (5.0)	96%	42%	17%	37%	3%
3	9	10.56 (3.5)	96%	32%	29%	37%	2%
4	14	8.64 (3.6)	92%	40%	26%	33%	0%
11	13	13.46 (1.6)	94%	18%	7%	65%	10%
12	10	10.20 (3.5)	99%	33%	10%	48%	9%

# EFFICIENCY

- Dosage:
  - SFAF – 26 person days on site in first year, gradual decrease
  - EME - 6 coaching cycles a year, plus grade level meetings
  - How much is enough?
- Who gets coached?
  - Efficient deployment of resources – some teachers need more, will benefit more etc? How do we know this?

# SUSTAINABILITY

- Who are the coaches – can we start with existing personnel in schools?
- Can we move toward TTT models so schools have internal coaching resources to spread the model?



# A COACHING LEARNING COMMUNITY

- What could we learn from all of the coaching efforts occurring within i3 work?
  - What makes an effective coach?
  - What are the most important elements of a coaching model?
  - What factors are most important to supporting successful scaling of coaching – with high fidelity?
  - How can models be most effectively sustained within schools?
- What do we need in order to support this learning?
  - Clarity around coaching models
  - Common frameworks and measurement around major constructs of interest
  - Focus on unpacking implementation of the coaching components of models