Call for Applications: *Foundations of Math* Implementation Usability Testing

Michigan's Integrated Mathematics Initiative, (Mi)[2], seeks sites (a building or small district) for usability testing of implementation supports designed to build and support local capacity to provide high quality math education to ALL students, informed by the *Foundations of Math* training course.
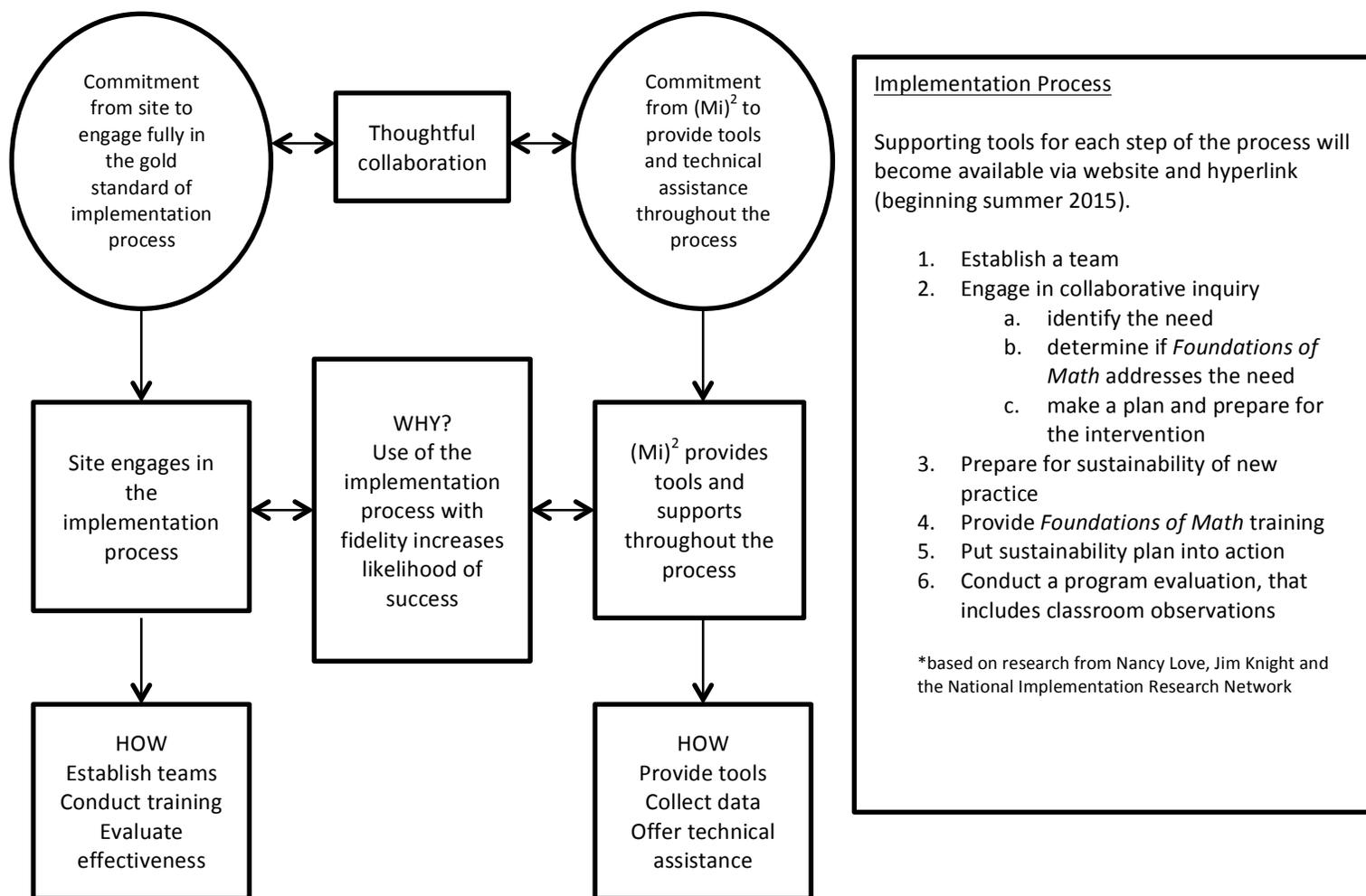
Interested sites should

1. Read through the Overview of *Foundations of Math*, Implementation Structure, and Application Questions.
2. Identify a potential *Foundations of Math* instructor pair (a general education and special education pair is required) who will work with your site and submit an application for Level 2 instructor training.
3. Contact Kate Fanelli (kate.fanelli@altshift.education) with questions.
4. Use this link to submit an application.

Implementation of new practices requires two strong instructors (a general education and special education pair is preferred), committed leadership and consistent use of tools/processes/protocols to support the stages of implementation with fidelity.

The Implementation Structure (page 2) illustrates how (Mi)[2] plans to work with pilot sites. (Mi)[2] expects this process to result in a quality implementation that reflects the "gold standard" (or emerging practice on the way to achieving the gold standard) of performance (see "What Are Practice Profiles?" on page 2).

Overview of Foundations of Math
5-day training course for K-12 educators involved in teaching mathematics to ALL students
Purpose: Develop the mathematical content knowledge of special education and general education teachers who work with low-performing students with a focus on The Components of Number Sense.

Evidence of Need	Description of Program	Indicators of Success
Students in your district/building are not achieving proficiency in mathematics. Certified K-12 special education teachers and K-6 general education teachers have similar mathematics methods training and are likely underprepared to address needs of students who struggle and students in secondary math courses. Student performance in mathematics has been linked to the mathematics knowledge of the teacher. Faulkner, V., & Cain, C. (2013). Improving the Mathematical Content Knowledge of General and Special Educators: Evaluating a Professional Development Module That Focuses on Number Sense. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children, 36*(2), 115-131.	*Foundations of Math* is designed to develop teachers' mathematical content knowledge and ability to deliver a coherent mathematical message through instruction. Teachers will • Make instructional choices that support communication and understanding of math in a consistent manner • Emphasize student mathematical thinking using number sense that is fluent, flexible, and guided by meaning • Connect related math concepts to procedures and real world examples Article: The Components of Number Sense Agenda: Main topics for the 5 days	Increased teacher mathematical content knowledge based on pre/post content assessments* Increased teacher understanding of the adult role in improving students' mathematical thinking based on pre and post results on the Teacher Belief Survey Teacher, coach and administrator observations of practice consistent with the "Gold Standard" or Acceptable Variations on practice profiles *as measured in the original research and which are consistent with initial data collected from Michigan course implementations

Implementation Structure

Commitment from site to engage fully in the gold standard of implementation process

⟷ Thoughtful collaboration ⟷

Commitment from (Mi)^2 to provide tools and technical assistance throughout the process

Site engages in the implementation process

⟷ WHY? Use of the implementation process with fidelity increases likelihood of success ⟷

(Mi)^2 provides tools and supports throughout the process

HOW
Establish teams
Conduct training
Evaluate effectiveness

HOW
Provide tools
Collect data
Offer technical assistance

Implementation Process

Supporting tools for each step of the process will become available via website and hyperlink (beginning summer 2015).

1. Establish a team
2. Engage in collaborative inquiry
   a. identify the need
   b. determine if *Foundations of Math* addresses the need
   c. make a plan and prepare for the intervention
3. Prepare for sustainability of new practice
4. Provide *Foundations of Math* training
5. Put sustainability plan into action
6. Conduct a program evaluation, that includes classroom observations

*based on research from Nancy Love, Jim Knight and the National Implementation Research Network

What Are Practice Profiles?

Practice profiles for teachers, instructors, coaches, administrators, and implementation teams clearly state expected outcomes for each role during, and as a result of, the implementation of new practices related to *Foundations of Math.*

Practice profiles also allow all people involved in implementation to know and do what is expected of them by describing "critical components," the behaviors that are critical to achieving desired outcomes. Each component is described using three variations:

- The "gold standard" is the ideal embodiment of the critical component.
- The "emerging practice" or "acceptable variation"will likely yield desired results and is provided as an alternative to the gold standard where the gold standard is not currently feasible, or where the practitioner(s) is working toward the gold standard.
- The "unacceptable variation" is meant to describe behaviors that might be interpreted by practitioners as acceptable, but are unlikely to result in desired outcomes.

During usability testing, (Mi)^2 and pilot sites will work to perform at the gold standard level. Practice profiles can be viewed at the (Mi)^2 website.

Preview of the Application

These questions are for review purposes before completing the application online.

Questions should be addressed **as a group** by stakeholders who will be involved in the implementation process.

Personnel
1. Identify at least 4 potential *Foundations of Math* instructors (2 potential instructors with a math background and 2 with a special education background are required) who have completed Level 1 *Foundations of Math* training and are applying for Level 2 *Foundations of Math* training.
2. Ensure that your team of potential instructors will be available for the upcoming Level 2 training opportunity.
3. Identify an (Mi)^2 liaison to be the contact person throughout the application, if accepted, the implementation process.
4. Establish potential dates to offer *Foundations of Math* training for your pilot site.
5. Will all of the teachers (who teach math - elementary, secondary, special education), interventionists, and coaches from your building/district attend the full five days of training during usability testing? If no, please provide an explanation or time line for getting the remainder of the staff trained.

Need
6. Why are you interested in being part of usability testing?
7. What need will *Foundations of Math* address (if not addressed in previous response)?

On-going Job-embedded Supports
8. What supports exist in your school to support ongoing training (check all that apply)?
    a. Instructional coaching
    b. Professional Learning Communities
    c. Peer coaching
    d. Additional related training
    e. Collaborative time focused on math content
    f. Collaborative time for lesson planning
    g. Other (please specify)
    h. None at this time
9. If no supports currently exist, what steps will you take to provide on-going job-embedded support for this process?

Implementation Teams (see Implementation Team practice profile for more information)
10. Implementation teams must include one person who has decision-making and resource allocation authority. Provide the name, title, and email address for that person.
11. Implementation teams must include both *Foundations of Math* instructors. Will the supervisors of those people agree to support their full attendance and participation in the implementation team?
12. An established implementation team, with key stakeholders, is critical to implementation success.   The Implementation Team will consist of district/site administrators and staff, (Mi)^2 staff, regional personnel and Loyola University faculty.

Each member will be an equal partner in the collaborative process of improving the implementation of practices and pedagogy taught in *Foundations of Math.* Team members will:

- Participate in all team meetings, in person or virtually, in their entirety (approximately every 30-45 days, stretching out to every 90 days)
- Ensure technology and/or classroom coverage is set up to support participation
- Respond to requests for feedback by the given date
- Contribute individual expertise to meetings
- Complete assigned tasks (e.g. data collection, interviews, etc.) by the given date.

Give 3-5 essential perspectives, in addition to those already mentioned, that you think should be included on this team.

13. Equally important is having an established, predictable location and time to meet. All members of the team need to be available for meetings and follow up tasks.
    a. How likely are you to ensure that each member receives adequate time to complete his/her responsibilities to the team?
    b. How likely are you to ensure a consistent meeting place and time for the team?

Implementation Readiness
14. Administrator support throughout the chain of command is critical to long-term success of implementation. Provide the names, titles and emails of all building and district administrators who are aware of, and support, your application for this usability testing.
15. $(Mi)^2$ will work with usability sites to co-construct a practice profile which defines "gold standard" practices. Please indicate your level of commitment to co-constructing practice profiles and aligning implementation toward the defined gold standard.
16. How equipped is your site to provide adequate resources (e.g. personnel, time, money) to work toward the "gold standard" of implementation?
17. How concerned is your team about being able to work toward the "gold standard" of implementation?
18. Choose a description that best describes your level of familiarity with implementation science and provide a brief explanation of your choice. Which statement best describes your level of familiarity with implementation science?
    a. I've never heard of it
    b. I think I've heard of it
    c. I've heard of it, but couldn't really say what it is
    d. I know what it is and can talk about it
    e. I know what it is and have been involved in projects that use it
    f. I know what it is and led/developed projects that use it
    g. Other (Please specify)
19. Please list/describe other large-scale initiatives you have implemented, or are currently implementing (e.g., MiBLSi, grant projects, Math Recovery, etc.) that would speak to your site's capacity to support this implementation at all levels (classroom through upper administration), and your belief and willingness to engage in fidelity of implementation.
20. Has your school/district stopped implementing any large-scale efforts in the last five years? If so, please describe the effort that was stopped, including what factors influenced the stoppage.