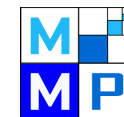


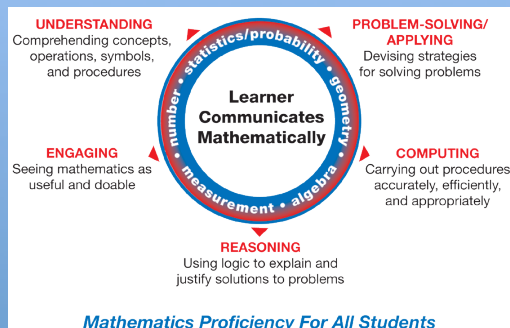
# Milwaukee Mathematics Partnership Phase I and Phase II



## MMP Definition of Student Success

A major goal of the MMP is to ensure all students, PK-16, have access to, are prepared and supported for, and succeed in challenging mathematics, as envisioned in the *Comprehensive Mathematics Framework*.

As measurable proxies for student achievement, the MMP uses scores on district benchmark assessments, the Wisconsin Knowledge and Concepts Examination (grades 3-8 and 10), and college placement tests.



## MMP Research and Theory of Action

### Conceptual Framework

- Strengthen teacher understanding of the mathematics they teach to students
- Develop aspects of Mathematical Knowledge for Teaching (MKT)—mathematical representations & connections, common student misconceptions, how students best learn mathematics
- Utilize principles of formative assessment in mathematics classroom practice



### Research Methodology

Use of Hierarchical Linear Modeling (HLM) to analyze value-added relationships of implementation of MMP principles, professional learning, teacher MKT, and student achievement



## Challenges

- Linking district teacher & student databases
- Linking district & higher education databases  
Linking teacher professional development (PD) to student achievement
- Competing initiatives and inconsistent messaging within the district
- Lack of growth in student achievement in high school



## Questions

- How have projects examined links between teacher PD and student achievement?
- What Math Teacher Leader (MTL) models have been implemented in districts and to what extent have these models proved effective in increasing student achievement?
- What successful strategies have projects implemented to improve student mathematics achievement in high school?



## Roles and Responsibilities of MMP Partners

### STEM Faculty

- Develop IHE preservice math courses
- Ensure rigor in teacher leader & teacher PD sessions and in district mathematics assessments

### K-12 District

- Provide support for master teachers in math leadership roles (MTL & MTS)
- Ensure MMP connections to classroom practice and district policies

### Education Faculty

- Support district mathematics leadership
- Ensure high-quality mathematics pedagogy and curricular relevance in coursework and PD sessions

### Evaluators

- Evaluate and suggest modified theories of action
- Enable and assist in collaborative data collection between partners

