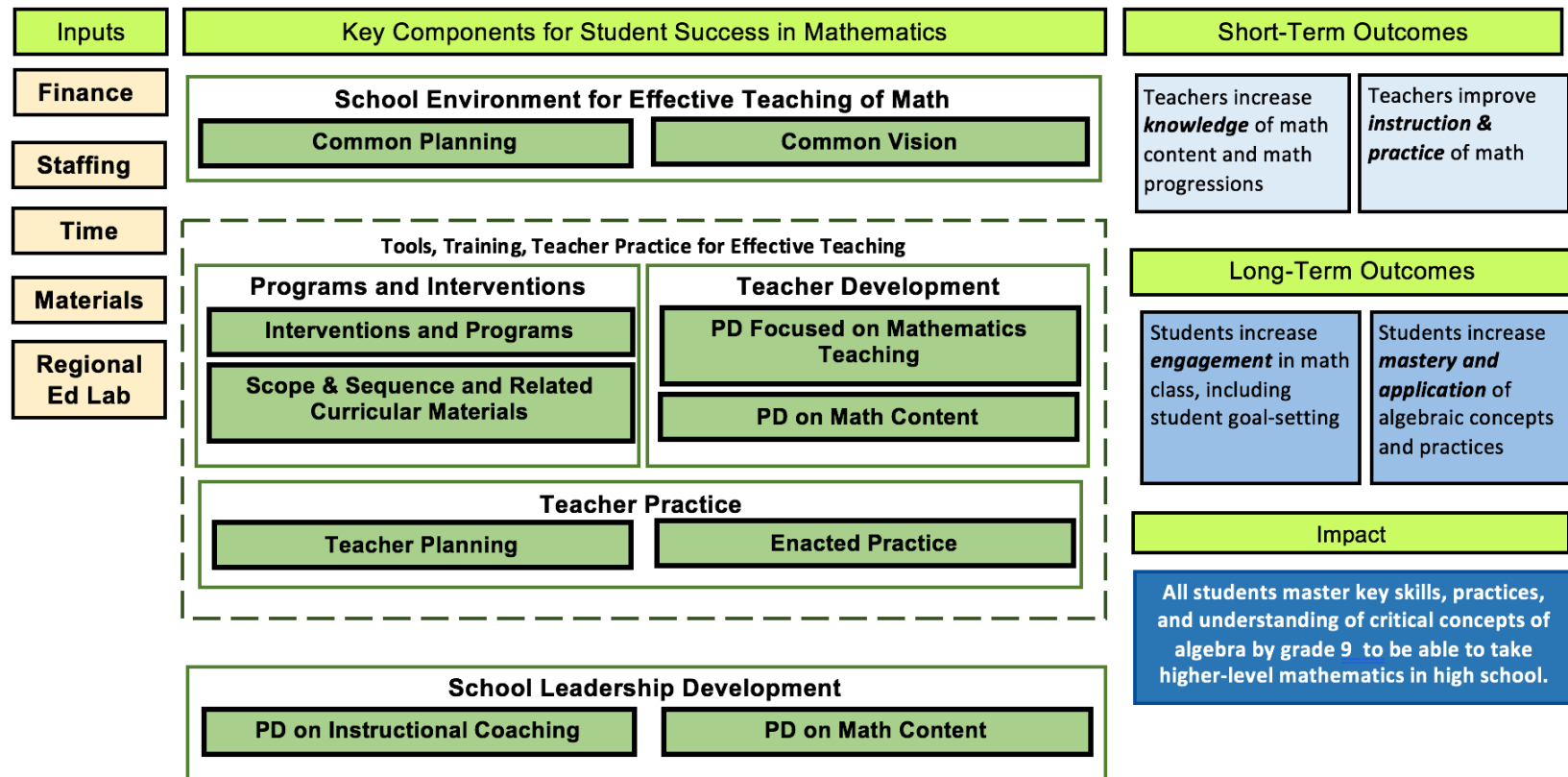


Student Success in Mathematics Partnership: Logic Model

Problem Statement: Not all students have the depth of skills, knowledge, and understandings necessary for success in algebra and higher-level mathematics courses. In particular there are gaps in algebra readiness for English learner students, students of color, students with disabilities, and economically disadvantaged students.



Assumptions:

- State context: Work within the boundaries of Virginia Department of Education policies and procedures with new math standards and assessments, Profile of a High School Graduate Initiative and new high school graduation requirements.
- Local context: Challenges of teacher retention, mobility, and math teacher shortages experienced.

PROBLEM STATEMENT

- Not all students have the depth of skills, knowledge, and understandings necessary for success in algebra and higher-level mathematics courses. In particular there are gaps in algebra readiness for English learner students, students of color, students with disabilities, and economically disadvantaged students.

STRATEGIES AND ACTIVITIES FROM THE LOGIC MODEL MEETING

Teacher Development and Training

- Have teachers participate in developing a vision of high-quality mathematics learning and teaching.
- Increase teachers' core beliefs (about selves, students, and math), as well as support teacher actions, student actions, and curriculum.
- Increase professional development (via Professional Learning Community meetings, online courses, or other forms of engagement) on topics such as mathematical mindset, learning trajectories and vertical alignment, and integrating research-based strategies to meet the needs of all learners.
- Establish a video library of a range of strategies and pedagogical approaches to enhance teachers' vision of high-quality mathematics learning.
- Increase accountability through classroom observation with a defined set of "look-fors" and feedback.
- Increase embedded professional learning and on-the-job training.

Curriculum

- Establish onboarding process for new teachers that incorporates types of strategies and approaches being established for all mathematics teachers in the division(s).
- Provide integrated curriculum in grades 6–12, where programs and curriculum have an aligned and integrated scope and sequence.

Instructional and School Leadership

- Conduct professional development (via Professional Learning Community meetings, online courses, or other forms of engagement) for principals on giving improvement-specific feedback (not accountability feedback).
- Provide training and professional learning for principals on mathematical content, mathematical growth mindset, and student-centered learning.

School Structures

- Incorporate flexible scheduling.
- Increase understanding and implementation of differentiated instruction and instructional grouping.

Research Agenda-Setting Workshop Handout 1

January 23, 2018, 9:00 a.m.–12:00 p.m.

Face-to-Face, Harrisonburg, Virginia

Tier I and II Programs and Interventions

- Singapore Math, 8 Standards of Mathematical Practice
- Computer-based interventions (IXL, Reflex Math, Dreambox) should address conceptual understanding
- Formative assessments.