# Implementation Study of Tennessee Pre-College Math Remediation Programs

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## OVERVIEW

SAILS (Seamless Alignment and Integrated Learning Support) is intended to address the problem of unprepared students needing to take non-credit-bearing remedial courses in college. Taking these courses adds time and expense to students' postsecondary experience and discourages college retention.

SAILS is intended to help Tennessee seniors who would otherwise require remedial math courses in college. These students used to take Bridge Math, a traditional math-review course, but still had to remediate in college unless they raised their ACT score. With the SAILS class, these students can participate in the college remediation class while still in high school, eliminating their need for developmental math in college while earning their high school credit. Students may then register for a credit-bearing college-level math course when they enroll in a Tennessee community college. This helps students take advantage of Tennessee Promise, which funds two years of postsecondary education in the state.

SAILS classes use a self-paced computer-based curriculum featuring modules with integrated assessments. SAILS schools are supported by two regional lead field coordinators; each school also has a local field coordinator from Chattanooga State Community College.

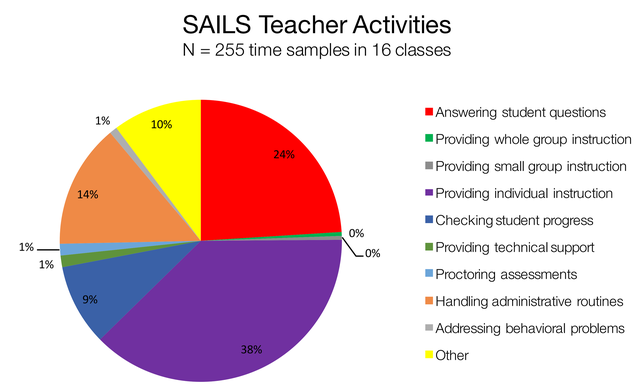
## EVALUATION QUESTIONS

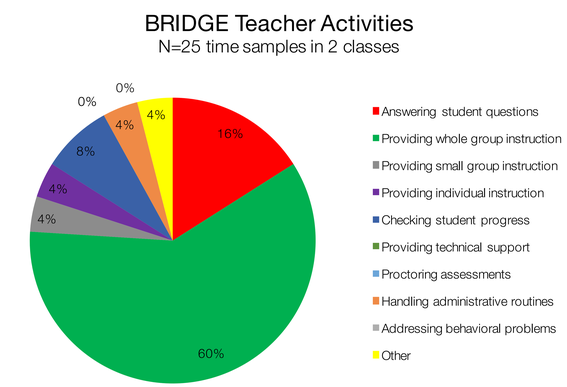
- What are the characteristics and qualifications of SAILS Bridge teachers?
- What role do field coordinators play in SAILS?
- How does implementation of SAILS/Bridge vary across schools?
- What are the implementation factors associated with more successful SAILS programs?
- What are students' experiences with SAILS/Bridge?

## METHODS

- Site visits to 17 schools in spring and fall 2015
  - 14 schools had only SAILS, 2 had only Bridge math, and one had both.
  - Geographic representation from west, middle, and east Tennessee
  - Included urban, suburban, small town, and rural schools
- Interviews with teachers, principals, community college partners, and SAILS field coordinators
- Student focus groups at each school
- Observations of SAILS and Bridge classes focused on the role of the teacher and on student engagement.

## KEY FINDINGS




### Learning Environment – Teacher Role

Compared to a typical math class, including Bridge Math, teachers in SAILS classrooms have a very different role, and need to be prepared for and supported in it.

- In Bridge math classes, teachers spent most of their time on whole-group instruction.
- In SAILS classrooms, teachers act as facilitators, and provide one-on-one and small group instruction. Students work independently and at their own pace on computers.
- In SAILS sites, teachers spent the majority of their time answering student questions and providing individual instruction they provided no whole-group instruction.

### Learning Environment – SAILS Field Coordinator

Coordinators provided key support to both teachers and students.

- Coordinated training, enrolled students, prtovided technical assistance
- Provided training on the specifics of the local developmental math course
- Visited and communicated with schools frequently
- Monitored data; provided support and tutoring to individual students
- Informed students about benefits of taking SAILS

### Student Experience

- Most students enjoyed the independent, computer-based learning in SAILS, although some missed getting direct instruction from teachers.
- Some students felt that the program increased their math confidence, knowledge, and interest.
- Some students made a connection between taking SAILS and being more prepared for and confident about for college

### Critical Variations in Implementation

- Student selection was not always based on ACT scores
- Teacher selection was sometimes intentional and sometimes a matter of convenience
- Student understanding of SAILS benefits grew from spring to fall 2015
- In higher-implementing schools:
  - Teachers and administravtors were collaborative and supportive of SAILS
  - Teachers used active strategies to support students
- Some students who completed SAILS did not avoid remedial math in community college

## IMPLICATIONS FOR EVALUATION PRACTICE

- An interim report is important for stakeholders to make implementation changes – the effectsof which may be captured in the final report.
- Involving multiple stakeholders in planning the study and reviewing interim findings may helpto surface unexpected priorities.
- As programs supporting free or low-cost community college attendance ptroliferate, more students will need help in math in order to participate. Evaluators can play a role in supporting the quality of interventions to avoid math remediation.

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