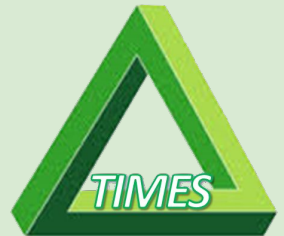


TIMES: Grant Overview

Teaching Inquiry-oriented
Mathematics: Establishing Supports



TIMES: Project Personnel

- IOLA: PI - Christy Andrews-Larson (FSU)
 - Curriculum Developers: Megan Wawro, Michelle Zandieh, Chris Rasmussen, Christy Andrews-Larson
 - Graduate Research Assistants: Muhammad Haider
- IODE: PI – Karen Keene (NCSU)
 - Curriculum Developers: Chris Rasmussen & Karen Keene
 - Graduate Research Assistants: Nick Fortune & Will Hall
- IOAA: PI – Estrella Johnson (VT)
 - Curriculum Developer: Sean Larsen
 - Graduate Research Assistants: Rachel Keller

TIMES: Goals

- Develop an understanding of what is needed to support instructional change in undergraduate mathematics
- Develop an instructional support model consisting of three interrelated components: *(1) curricular support materials, (2) summer workshops, and (3) online instructor workgroups.*
- Investigate instructor change in the context of our model: relationships and interactions between the supports, the instructors, and their instructional practices
- Identify aspects of the supports and instruction that have a positive impact on students' learning

TIMES: Support Model

- Curricular support materials
- Summer workshops
- Online instructor workgroups

TIMES: Support Model

- Curricular support materials
 - Goals: Provide tasks, rationale, examples of student thinking, and implementation suggestions
 - Format: Accessible online (password protected)

TIMES: Support Model

- Summer workshops
 - Goals: Develop and understanding of the intent of the curriculum and IO instruction, develop a shared vision of instruction and learning goals, develop an understanding of the curriculum resources
 - Format: Intensive summer workshop that focuses on the instructional tasks and the role of the teacher

TIMES: Support Model

- Online instructor workgroups
 - Goals: Provide ongoing instructional support with opportunities to discuss student reasoning and instruction, and provide targeted feedback on instruction.
 - Format: Synchronous online meeting for one hour per week for a semester

TIMES: Support Model

- Online instructor workgroups: Format
 - Each week:
 - 20 minutes devoted to issues raised by instructors
 - 40 minutes devoted to lesson study
 - Over semester:
 - We will conduct two lesson study cycles (planning, debriefing, and watching clips from targeted lessons)
 - These are the lessons that will be video recorded
 - We will ask each person to select a clip from their class to discuss with their online workgroup

TIMES: Data Sources

- Pre/Post Workshop Surveys
- Pre/Post Online Working Group Interviews
- Video recording of Workshop
- Video recording of Online Working Groups
- Video of Target Lessons
- Copies of Instructional Materials (e.g., homework assignments, handouts, exams...)
- Student Perception Survey

TIMES: Data Sources (continued)

- *Matched* Student Assessments
 - Need to identify a comparable classroom and ask their students to take the assessment
 - A different section at your institution during the same semester
 - A different section at your institution a year later
 - A different section at your institution in the spring
 - A similar institution

IRB

We need to get this at your school!

We need informed consent from students:

- For videotaping

- For student assessment (end of semester)

- For student perceptions of instruction (end of semester)

If you have no idea what IRB and/or informed consent means - talk to your TIMES GRA later. If you know how to file your own IRB, we'll send you our applications so you can file this yourself (THANK YOU!).