

Abstract

Redesigning Secondary Courses to Improve Academic Outcomes Related to Higher Standards for Students with Disabilities and Other Underperforming Students

Description: SRI International proposes an **I3 Development Grant for absolute priority #3: Improving Academic Outcomes for Students with Disabilities (SWDs)**, to combine Strategic Instruction Model (SIM) interventions with mobile devices to enhance content learning and engagement in science (SC) and social studies (SS) classes and online environments. In Year 1, researcher/practitioner teams will identify critical topics and outcomes aligned with CCSS and NGSS standards in 6th and 9th grade SC & SS courses (8 total). For each unit, a version will be created to reflect typical instruction; and a second will be enhanced with SIM and mobile technologies to support collaborative learning. In Years 3-4, an RCT study will be conducted in 16 sections of 6th grade SC and SS, 9th grade SC & SS inclusive courses. Course sections within each teacher will be randomly assigned to the enhanced or the typical unit's condition. This design will be repeated for three cohorts. The 6th grade SC & SS and 9th grade SC & SS units and PD will undergo two development cycles.

Objectives: (1) DBIR methods will be used to design eight SIM and mobile technology enhanced SC & SS units, (2) a series of randomized control trials will be conducted to evaluate the effects of enhanced units on the content learning and engagement of SWDs and other students, and (3) quantitative and qualitative data will inform unit revisions, the PD model, and unit curriculum design specifications.

Students: RCTs involve 4,800 students (200 SWDs).

Special features: mobile technologies for collaboration, separate teaching guides and supports for the SS, and SC and special education (SE) teachers to prepare SWDs to use strategies.

Partners: SRI International, Leaders Network, Alameda USD, Culpeper County PS, and KU Center for Research on Learning.