

SCALING AND SUSTAINING THE SCIENCE TEACHERS LEARNING FROM LESSON ANALYSIS (STeLLA) PROFESSIONAL DEVELOPMENT PROGRAM

ABSTRACT

In this five-year Mid-phase project, BSCS (a non-profit organization) proposes to generate evidence and understandings that will support the scaling of the Science Teachers Learning from Lesson Analysis (STeLLA) professional development (PD) program. The project addresses Absolute Priority 1 (Moderate Evidence) and Absolute Priority 3 (Promoting STEM Education) by (a) revising the face-to-face STeLLA PD program for online delivery; (b) developing a cohort of local leaders to implement the STeLLA PD program; (c) conducting a cluster randomized trial to examine the impact of STeLLA on teachers' professional knowledge, classroom practice, and student achievement; (d) continuously improving the program based on feedback and fidelity data; and (e) developing capacity for sustainability and continued scaling of the program. The project will involve 174 4th and 5th grade teachers and approximately 13680 4th and 5th grade students in high needs (at risk for educational failure) and rural areas of Tennessee and Kentucky. Outcomes from the project will include higher teacher science content knowledge, pedagogical content knowledge, and improved classroom practice; higher student achievement in science; rigorous evidence on the efficacy and cost-effectiveness of the STeLLA PD model; and regional capacity to sustain the program beyond the end of the grant. LEA Partners: Kentucky: McLean County, Fayette County, Madison County, Mercer County, Carter County, Grayson County, Washington County, Whitley County, Boone County, East Bernstadt, Magoffin County, Letcher County, and Fulton Independent; Tennessee: Knox County, Hamilton County, Bledsoe County, Humboldt City, Marshall County, and Haywood County. Other Partners: AIR, the Partnership Institute for Math and Science Education Reform (PIMSER) at the Eastern Kentucky University, Instruction Partners (TN), and the Tennessee Aquarium.