

## **Integrating STEM, Literacy, and Language to Prepare All Teachers to Teach English Language Learners: iTeach ELLs**

**PR#:** U336S140080

**Organization:** Arizona State University Board of Regents

**Address:** PO Box 876011, Tempe, AZ 85287

**Project Director:** Pamela Harris

**Phone:** (480)727-5188

**Email:** Pamela.J.Harris@asu.edu

**Priorities:** AP1, CP2

**Award Amount:** \$2,106,444

**Abstract:** iTeach ELLs addresses the need for improved educational outcomes for ELLs in Arizona. We propose activities focused on four goals: (1) reform PreK-8th grade teacher preparation to address the need for highly qualified general and special education teachers for ELLs; (2) redesign math and science methods courses to include instructional strategies that promote language and literacy development; (3) redesign course signature assignments to use problem-based learning (PBL) pedagogy and design principles supporting teacher candidates' application of knowledge and skills in "real world" classrooms; and (4) integrating and understanding evidence-based practices and scientifically-validated research for teaching and learning of ELLs, including data-driven decision to improve differentiated instruction. We begin with professional development for faculty to integrate practices for ELL into science and math methods courses. Then, we propose to deeply engage early childhood and elementary teacher candidates through PBL increasing their students' access to STEM content and achievement in language and literacy skills. Teacher candidates learn to respond to each student individually by examining multiple data sources further breaking down the barriers for ELLs who are often seen as a uniform group. Teachers will use knowledge and skills in the language and literacy development through math and science content and literacy and assessment practices to improve the educational outcomes for all students, and particularly ELLs.

**Project objectives and expected outcomes:** Objectives and outcomes are designed to meet proposed goals. Courses are taught with fidelity using an integrated content approach and PBL in math, science, literacy and assessment by the end of the project. Teacher candidates will report higher levels of efficacy in achieving improved educational outcomes for ELLs. PreK-12 students make greater gains on standardized assessments in math and science.

**Target number of teachers served:** 2,000 graduates and 600 partner district teachers.

**Special features:** Reform traditional discipline-specific learning into applied cross-discipline projects. Integrate evidence-based practices for ELLs across STEM, assessment, and literacy courses. Induction programs for graduates alongside mentors in their teaching sites. Induction is sustained and ongoing with intensive iTeach ELLs camp and activities with ELL and PBL coaches during the school year. Leverage technologies for learning (a) *Quest to Teach*, virtual learning modules, and (b) the Professional Learning Library, an online community of resources, lessons, collaboration opportunities and more.

**Partners:** Total: 20. Avondale Elementary School District, Balsz Elementary School District, Chandler Unified School District, Deer Valley Unified School District, Dysart Unified School District, Gadsden Elementary School District, Gilbert Public Schools, Glendale Elementary School District, Isaac School District, Littleton Elementary School District, Madison Elementary School District, Mesa Public Schools, Osborne School District #8, Paradise Valley Unified

School District, Pendergast Elementary School District, Phoenix Elementary School District, Roosevelt School District, Scottsdale Unified School District, Tempe Elementary School District, Washington Elementary School District.

