

Org-Type	Higher-Education-based  Collaborative Group		
Lead	California State University Northridge	PoC	Ivan Cheng, Project Director
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Address	18111 Nordhoff Street, CA, 91330-8265		
URL			
Service-Region	Southern California		
Type	Student Program		
Subjects	Math		
Level	Middle School (5-8th grade)		
Other-Objectives	Mathematics (algebra and pre-algebra), robotics		
Served-per-Year	200	Demographics	American Indian Asian and/or Pacific Islander Black or African American Hispanic or Latino
Content	<p>The primary focus of the DREAMS collaborative is to improve the success of students in first year algebra by developing resources and engaging activities for students and teachers. The primary activity involves teacher professional development using the Student Improvement Through Teacher Empowerment (SITTE) process. This model uses summer school/inter-session algebra classes as the laboratory in which teachers experiment with alternative strategies to help students achieve. A key feature of the SITTE model is daily collaboration and coaching to analyze what works with students and to refine practice based on this daily collaboration. Additional activities include the use of robotics to provide relevant experiences where the students can apply the mathematics that they learn, as well as support programs that enhance student study skills and parental involvement.</p>		
Outcomes	<p>Student achievement is evidenced by increased rates of passing algebra and improved performance on various standardized tests. Teacher improvement is evidenced by improved planning and delivery of instruction.</p>		
Started		Funded-Through	
Length	Ongoing	Cost	
Primary-Funding		Primary-\$	
Materials			
Other-Funding	ARCHES grant seed money (additional grant funding being sought)		
How-Assessed			
Best-Practice-Why	<p>The SITTE model of professional development and the integration of robotics into a summer program to provide rigor, relevance, and relationships represent a distinctly different, yet replicable approach for providing student support as well as teacher professional development. The foundation of the SITTE approach is that each lesson (math and robotics) is strategically designed around daily evidence of student understanding. As a result, teachers gain experience in thinking through their lessons, and in adapting instruction to make content accessible. And by empowering teachers to get through to their students rather than just getting through a curriculum, the teachers experience success with students. This, in turn, gives teachers the confidence to take additional risks in trying new teaching methods. The results of initial experiments with SITTE model of professional development are very positive and suggest that such an approach can impact student achievement and teacher beliefs and practices substantially. In three small previous implementations (N = 4, N = 3, N = 3) the pass rate of algebra for historically unsuccessful students doubled. Additionally, qualitative data suggest that teachers found themselves empowered to construct their own learning and thus experience transformative learning. During SITTE, they had the time to review their students' work, reflect on their teaching, and refine their strategies. And as the teacher continued to develop new strategies and lessons they also began to experience generative learning. For example, when asked about how SITTE affected him, one teacher replied, "My last three semesters here I was vaguely looking for something that I could use to help my students so they can go out of my classroom with something. But I just could not see how. Now I feel like I can make the difference." Another teacher reflected, "I grew as a teacher. I learned to value others' ideas, and most important, I learned what collaboration is about." These comments reflect the shifts in the teachers' beliefs and practices that subsequently affected how they delivered instruction in their regular classes.</p>		
Promising-Practice			
Sponsor		Sponsor-Org	
Sponsor-Phone		Sponsor-Email	
Other-Orgs	Alliance for Regional Collaboration to Heighten Educational Success (ARCHES) The Economic Alliance of the San Fernando Valley Los Angeles Unified School District (Local District 2) Los Angeles Mission College Project GRAD Los Angeles		