CHALLENGES RELATED TO STUDENT SUCCESS

Reach larger numbers of schools, teachers and students
Strengthen the links between teacher PD and student learning with understanding

OUR DEFINITION OF STUDENT SUCCESS

Increased K-12 mathematics & science learning:
Annual increases in achievement attributable to projects’ interventions
Measured by standardized tests: Pruebas Puertorriqueñas de Aprovechamiento Académico (PPAA)

RESEARCH DESIGN: PRE/POST WITH COMPARISON GROUPS

Math test data for six years (ideal scenario)
Science test data for only one year (not ideal scenario)
Data from multiple years

PARTNER ROLES

STEM Faculty
Project leaders
PD trainers
Content specialists
PD lesson design
Pre-service program supervisors
Pre-service research mentors
Science & math educational researchers
8-12 student summer camp mentors

Education Faculty
Project leaders
PD trainers
Education specialists
PD lesson design
Pre-service program supervisors
Pre-service research mentors
Assessment specialists
Educational research specialists

E-12 Public School System (one integrated system)
Schools/teachers as voluntary participants
disciplinary teachers as PD trainers
Collaborator in establishment of resource centers
Participant in project planning and implementation
Developer of curricular frameworks, content standards & grade expectations
Assess student achievement: Institutionalization of project reforms

Evaluators
Plan the assessment/evaluation of student achievement
Collect formative student assessment data
Retrieve student assessment data for summative evaluation
Analyze student data for project evaluation
Provide feedback to project stakeholders
Report results through various venues

Public school system
School
Teachers
Students

New projects to implement these strategies

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STRAATEGIES TO OVERCOME CHALLENGES

Increase number of schools served
Strengthen existing professional resource centers
Create new centers
Equip centers with curricular materials/technology for active learning
Promote supportive school leadership
Promote collaborative empowerment evaluation

Increase number of teachers served
Strengthen teacher math/science PD attuned to content standards and grade expectations
Equip teachers with materials to implement active learning
Train teachers to become teacher trainers and disciplinary leaders
Increase number of students taught using best educational practices and active learning curricular materials
Increase number of students taught according to content standards & grade expectations in which standardized achievement tests are based

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Increase number of students taught according to content standards & grade expectations in which standardized achievement tests are based

Math & Science Master Teachers
Robert Noyce Teacher Scholarship Program
& Science and Math secondary teachers