

**Education Innovation and Research Program (EIR)
Project Abstract**

Applicant Name: IDRA

Project Title: TechXperts

Type of Grant Requested: (select one) Early-Phase Mid-Phase Expansion

Absolute Priorities the Project Addresses: (select all that apply)

- Absolute Priority 1-- Demonstrate a Rationale (Early), Moderate (Mid), Strong (Expansion)
- Absolute Priority 2-- Field-Initiated Innovations—General
- Absolute Priority 3-- Promoting STEM Education
- Absolute Priority 4-- Meeting Student Social, Emotional, and Academic Needs
- Absolute Priority 5-- Educator Recruitment and Retention

Competitive Preference Priorities the Project Addresses: (select all that apply)

- Competitive Preference Priority 1— Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners
- Competitive Preference Priority 2— Addressing the Impact of COVID–19 on Students, Educators, and Faculty

Total number of students to be served by the project: 360

Grade level(s) to be served by the project: 9th

Definition of high-need students: The program defines high-need students as 9th graders deemed “at-risk” by their state statute, including but not limited to: failing two or more subjects in 8th grade, repeated failure on state assessments

Brief description of project activities: TechXperts will engage eighth-grade students in leadership roles to prepare them for the fields of STEM careers. This program’s four main components (information technology and computer science curriculum, student-led help desk, accreditation preparation, and mentoring) broadens the participation of underserved, underrepresented, high-need students in applied computer science by participating in an elective student-led technology support course

Summary of project objectives and expected outcomes: IDRA will develop a course, professional development and materials to increase students’ troubleshooting skills through computational thinking, STEM identity and reading skills. Students will serve as tech support specialists for their campuses.

Summary of how the project is innovative: This project will integrate disparate research-based strategies into a seamless intervention that can be implemented at scale, with measurable impacts for public high school students.

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Other studies related to the proposed project: Asset-Based Strategies (Mahadeo et al., 2020); PBL (Avilés & Al-Gasem, 2016; Strobel & van Barneveld, 2009; Walker & Leary, 2009; mentorships (Apriceno et al., 2020; Caldwell, 2017

Proposed implementation sites: Brownsville, Hidalgo, La Villa and Mercedes ISD

Organizations partnering with this project: Education Service Center One and University of Texas Rio Grande Valley