Early-Phase Competition Absolute Priority 3 (STEM)
The Board of Regents of the University of Wisconsin System
S411C220116
Teaming Up for Equity in Science: Supporting NGSS Three-dimensional Learning and Achievement through Actionable Assessment

Applicant Name: The Board of Regents of the University of Wisconsin System
Project Title: Teaming Up for Equity in Science: Supporting NGSS Three-dimensional Learning and Achievement through Actionable Assessment
Type of Grant Requested: Early Phase
Absolute Priorities: 1 Demonstrates a Rationale, 3 Field-initiated innovation- STEM
Competitive Preference: 1 Promoting Equity in Student Access to Education Resources
Total number of students to be served by the project: 9,000
Grade levels to be served by the project: 7,8
Your definition of high-need students- English Learners (ELs) and students with disabilities in reading. ELs receive English language services in schools or have recently exited services. Students with disabilities in reading have an IEP or 504 related to reading ability.
Brief description of proposed project, including project activities: This project will examine the use of the ONPAR NGSS-based assessment system to leverage data to inform teaching and learning and conduct a randomized controlled trial to assess its effectiveness. Goals are: (1) refine and validate ONPAR materials to meet the needs of users, (2) increase teacher efficacy for NGSS assessment and data-driven instruction through ONPAR (3) improve outcomes for high-need middle school science learners, particularly ELs and students who struggle with reading, and (4) build capacity for sustaining and expanding the use of the ONPAR assessment system.
Summary of project objectives and expected outcomes: This project has 13 objectives: (1.1) by end of Y1, ONPAR score reports will be updated (72) and validated (2 panels); (1.2) by start of 2023-24 school year, ONPAR units (12) will be programmed using CASE tagging, (1.3) by end of Y1, the project will conduct WCAG review and add additional WCAG features (12 units), (2.1) by end of Y3, 80 Grade 7 and 8 middle school teachers will be recruited; 40 treatment teachers will receive ongoing training (54 PD meetings), (2.2) in Y2 and 3, meetings will be held with administrators to discuss outcomes (8 meetings), (2.3) in Y2 and 3, 80 teachers will take surveys (240 surveys) and (2.4) 10 will be interviewed. We expect 90% of treatment teachers to report an increase NGSS assessment and instruction support. Goal 3 objectives: (3.1) in Y2 and 3, 40 treatment teachers will implement ONPAR with 4,500 students; (3.2) district data will be gathered for treatment and control (9,000 students); (3.3) the evaluator will analyze data (9,000 students; 80 teachers). We anticipate treatment students will show a statistically significant improvement over traditional test outcomes. Goal four objectives: (4.1) in Y1, 75 LEAs will be surveyed about their NGSS instructional needs and digital infrastructures (75 surveys); (4.2) staff will participate in at least one conference each year (14 proposals are submitted); and (4.3) staff will publish about ONPAR (4 articles and 84 social media posts).
Describe how the proposed project is innovative: ONPAR is a technology-enhanced assessment with innovative item types, automatic scoring, and state-of-the-art score reports. The system promotes data-driven instruction and student autonomy. Identify other studies and/ practice related to the proposed project: PR #S368A060007, PR #S368A070001, PR

#S368A090029, PR #R305A140117 and PR #S368A150019. Through these studies, layout, design, automatic scoring, reporting, and classroom implementation practices have been developed; outcomes have also been collected and analyzed.

Proposed implementation sites: Detroit Public Schools and St. Martin Parish Schools

List all organizations partnering with this project: Wisconsin Center for Educational Research, Educational Measurement Consulting, Activate Learning LLC, The Learning Agency, Detroit Public Schools, St. Martin Parish Public Schools