U.S. Department of Education - EDCAPS
G5-Technical Review Form (New)

Status: Submitted
Last Updated: 08/02/2024 06:39 PM

Technical Review Coversheet

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)
Reader #1: **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		15	0
Strategy to Scale			
1. Strategy to Scale		40	0
Quality of Project Design			
1. Project Design		20	0
Quality of the Project Evaluation			
1. Project Evaluation		25	21
	Sub Total	100	21
Priority Questions			
Competitive Preference Priority			
Competitive Preference Priority 1			
1. Promoting Equity		3	0
	Sub Total	3	0
Competitive Preference Priority			
Competitive Preference Priority 2			
1. Impact of COVID-19		3	0
	Sub Total	3	0
	Total	106	21

Technical Review Form

Panel #3 - Mid-Phase - 4: 84.411B

Reader #1: **********

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **The extent to which the proposed project involves the development and demonstration of promising new strategies that build on, or are alternatives to, existing strategies.**

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

Selection Criteria - Strategy to Scale

1. **The Secretary considers the strategy to scale the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

Strengths:

n/a

Weaknesses:

n/a

Sub

Reader's Score: 0

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

3. **(3) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

4. **(4) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication.**

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

5. **(5) The likely utility of the products (such as information, materials processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings.**

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

   Strengths:

   n/a

   Weaknesses:

   n/a

   Reader's Score: 0

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

   Strengths:

   n/a

   Weaknesses:

   n/a

   Reader's Score: 0

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

   Strengths:

   n/a

   Weaknesses:

   n/a

   Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. **The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:**

Reader's Score: 21

Sub

1. **(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

Strengths:

The applicant proposes excellent evaluation methods that are consistent with the requirements for a study to meet What Works Clearinghouse (WWC) standards without reservation. The proposed design is a multisite cluster randomized controlled trial that will randomly assign the sample of participating schools to treatment and control conditions, and this design is eligible to meet WWC standards without reservation (e36). The strategy for randomization is clearly described and will result in valid groups (e36). The single confirmatory research question is clearly specified and will test the impact of the treatment on a valid and reliable student assessment outcome in the domains of science, math, and English language arts (e37). Baseline data will be collected and used in the estimation models, as well as being available if needed due to high attrition (e32). The proposed statistical models for estimating the treatment effects are correctly specified and appropriate for the design (e227-e228). For example, the applicant proposes a two-level hierarchical linear model with the treatment indicator at the cluster level and fixed block effects for each of the nine districts (e227). Methods for handling missing data are consistent with WWC requirements, including the use of listwise deletion for students with missing outcome measures and examining the use of multiple implementation or full information maximum likelihood estimation for missing covariate data (e229). The detailed power analysis supports the use of the proposed sample size (e229). There are several effective strategies for minimizing attrition and ensuring that it is limited to 10 percent as estimated in the power analysis, including securing the support of the schools and school districts (e40) and paying teachers stipends to participate (e235).

Weaknesses:

The applicant does not sufficiently describe the data management procedures that they will use to ensure the longitudinal sample remains as randomized over time. For example, it is not clear how students that join the intervention after random assignment will be detected and treated in the analyses, and it also is not clear how the applicant will ensure that students continue to be enrolled in classes of treatment teachers for three years if not all teachers in a grade level participate in the treatment. The detailed data management strategies for these conditions are not adequately described in the proposal.

Reader's Score: 13

2. **(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.**

Strengths:

The applicant specifies a strong set of research questions that will guide the research study, and the findings from these research questions will provide guidance on whether the treatment is suitable for replication or testing in other settings (e37-e38). For example, the applicant will test the extent to which the student impacts differ by student characteristics or school characteristics (e37). Multiple settings will be identified for participation to inform the moderation analyses related to school characteristics—the applicant plans to select 9 diverse districts with at least 51 percent of the schools located in a rural locale (e216). Implementation analysis will allow for an understanding of whether teachers view the treatment as useful, and what factors allowed them to implement the treatment as designed or led them to make modifications (e42). This type of implementation information will assist others looking to replicate the treatment in similar settings. The applicant plans to conduct a cost effectiveness study using an already established methodology and tool, which will provide valid estimates (e30). In addition, the applicant will secure an independent evaluation to ensure that the findings and guidance about replication are unbiased (e35).

Sub

Weaknesses:

No weaknesses noted.

Reader's Score: 5

3. **(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.**

Strengths:

The applicant clearly states their conceptual framework, which is that the treatment (including professional development and family science packs) will lead to improved teacher knowledge, skills, and family engagement skills that will lead to increased student outcomes (e220). The evaluation plan is aligned to this conceptual framework and will measure the project's impact on the expected student outcomes (achievement in science, math, and English language arts) using confirmatory analyses (e37). Exploratory analyses will be conducted to determine the effect of the project on teacher outcomes, and whether student outcomes are mediated by teacher outcomes (e37). The applicant details the measures that will be included in the exploratory analyses and demonstrates that each measure is a valid measure of the key construct and that they have or expect to have sufficient reliability (e41). For example, teacher self-efficacy will be measured with a Teacher Sense of Self Efficacy Scale with a reliability of .77 and family outcomes will be measured with a study-specific survey that will be developed and validated by the evaluation team (e41). The statistical methods that will be used for conducting the mediation analyses are appropriate (e41).

Weaknesses:

The applicant intends to develop the threshold for acceptable implementation after funding (e43). Given the lack of this information, the threshold for acceptable implementation cannot be evaluated to ensure it is measurable and appropriate.

Reader's Score: 3

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. **Competitive Preference Priority 1:**

Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners (up to 3 points)

Under this priority, an applicant must demonstrate how the project will be implemented by or in partnership with one or more of the following entities:

(a) Community colleges (as defined in the NIA)
(b) Historically Black colleges and universities (as defined in the NIA)
(c) Tribal Colleges and Universities (as defined in the NIA)
(d) Minority-serving institutions (as defined in the NIA)

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: **0**

Competitive Preference Priority - Competitive Preference Priority 2

1. **Competitive Preference Priority 2:**

   Addressing the Impact of COVID-19 on Students, Educators, and Faculty: Community Asset-Mapping and Needs Assessment and Evidence-Based Instructional Approaches and Supports (up to 3 points).

   Projects that are designed to address the impacts of the COVID-19 pandemic, including impacts that extend beyond the duration of the pandemic itself, on the students most impacted by the pandemic, with a focus on underserved students and the educators who serve them through the following priority areas:

   (a) Conducting community asset-mapping and needs assessments that may include an assessment of the extent to which students, including subgroups of students, have become disengaged from learning, including students not participating in in-person or remote instruction, and specific strategies for reengaging and supporting students and their families; and

   (b) Using evidence-based instructional approaches and supports, such as professional development, coaching, ongoing support for educators, high-quality tutoring, expanded access to rigorous coursework and content across K-12, and expanded learning time to accelerate learning for students in ways that ensure all students have the opportunity to successfully meet challenging academic content standards without contributing to tracking or remedial courses.

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: **0**

Status: Submitted
Last Updated: 08/02/2024 06:39 PM

Status: Submitted
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Technical Review Coversheet

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)
Reader #2: **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		15	0
Strategy to Scale			
1. Strategy to Scale		40	0
Quality of Project Design			
1. Project Design		20	0
Quality of the Project Evaluation			
1. Project Evaluation		25	20
	Sub Total	100	20
Priority Questions			
Competitive Preference Priority			
Competitive Preference Priority 1			
1. Promoting Equity		3	0
	Sub Total	3	0
Competitive Preference Priority			
Competitive Preference Priority 2			
1. Impact of COVID-19		3	0
	Sub Total	3	0
	Total	106	20

Technical Review Form

Panel #3 - Mid-Phase - 4: 84.411B

Reader #2: **********

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **The extent to which the proposed project involves the development and demonstration of promising new strategies that build on, or are alternatives to, existing strategies.**

Strengths:

na

Weaknesses:

na

Reader's Score: 0

Selection Criteria - Strategy to Scale

1. **The Secretary considers the strategy to scale the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

Strengths:

na

Weaknesses:

na

Sub

Reader's Score: 0

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

Strengths:

na

Weaknesses:

na

Reader's Score: 0

3. **(3) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

Strengths:

na

Weaknesses:

na

Reader's Score: 0

4. **(4) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication.**

Strengths:

na

Weaknesses:

na

Reader's Score: 0

5. **(5) The likely utility of the products (such as information, materials processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings.**

Strengths:

na

Weaknesses:

na

Reader's Score: 0

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

   Strengths:

   na

   Weaknesses:

   na

   Reader's Score: 0

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

   Strengths:

   na

   Weaknesses:

   na

   Reader's Score: 0

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

   Strengths:

   na

   Weaknesses:

   na

   Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. **The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:**

Reader's Score: 20

Sub

1. **(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

Strengths:

Overall, this proposal would do a very good job producing evidence of project effectiveness that would meet the What Works Clearinghouse standards without reservations. This project includes a host of different outcomes across students, teachers, and families. The primary student outcomes all meet What Works Clearinghouse standards without reservations (e35, e40). They are established state assessments or validated measures with appropriate levels of reliability included in the evaluation plan. Almost all other outcomes included also met What Works Clearinghouse standards without reservations. The only exception being outcomes from the family engagement survey which is not a focus of the impact study. The proposed evaluation mostly avoids possible confounding. The randomization and design plan (e22, e36) makes n=1 confounding unlikely. The impact study and evaluation employs a multisite (blocked) cluster randomized trial with an appropriate randomization plan which meets What Works Clearinghouse standards without reservations. The comparison group services are well defined as 'business as usual' (e39) and there is a clear and appropriate plan for delayed treatment of teachers (e30). Regarding evaluation sample and possible compositional changes, the proposed evaluation justifies a low expected attrition rate for schools (e40) and highlights those schools already committed (e28). A plan to ensure the sample size is adequate is also provided (e40) and is well detailed (e227). Importantly, the accuracy of this plan is supported through the utilization of design parameter estimates based on other similar interventions and outcomes (e229). The proposed evaluation describes appropriate analytic models for both student and teacher outcomes along with an appropriate multilevel mediation model for investigating indirect effects. The design parameter that captures the treatment effect of interest is well defined and described accurately (e39).

Weaknesses:

Additional clarity is needed to properly consider the equivalence of comparison groups (i.e., the treatment and control groups). This stems from ambiguity in descriptions of project participants, impact study participants, and the final treatment and control groups utilized in the impact study. For example, Table 2 on e29 presents a treatment schedule for teachers with Table 4 on e39 presenting the experimental cohort and participating students not in the impact study. The experimental cohort is reported as approximately 6,360 students. This is the same number of students served by the entire project (e11). There is some conflict here as both tables suggest a far larger student population is treated (i.e., "y=treated students not in impact study" noted below Table 4 , e39). Relatedly, the definition of treatment for those in the impact study is not clear. The treated group appears to be only those students who receive NURTURES in 1st, 2nd, and 3rd grade but an explicit definition of treatment is not provided. The appropriate control group would be a matching group that did not receive NURTURES across any grade but this control condition definition is not provided. To summarize, the treatment and control groups are not clearly stated and it is not clear if the number of participants (approximately 6360) is referring to all students or those in the impact study/experimental cohort. The proposed evaluation does have weaknesses related to sample and possible compositional changes. First, the commitment of some schools does not fully support the expected low attrition rate. This inference is particularly tenuous in a new setting (i.e., rural schools) and with the planned longitudinal design. Second, plans to ensure low attrition and address joiners for students in grade 1 for the 2025-2026 school year and grade 3 for 2027-2028 school year are inadequate or not present and this group is crucial to the impact study. Lastly, the missing data plan is not sufficiently detailed.

Reader's Score: 12

2. **(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.**

Sub

Strengths:

Overall, the proposed evaluation would do a very good job providing guidance about effective strategies suitable for replication or testing in other settings. The evaluation has clearly articulated questions to examine effect heterogeneity across student (question 2), teacher (question 6) and families (question 8). Specific factors are also noted for each (e37). The analytic plan for moderation effects involving students in the student model and teachers in the teacher model are likely to be well positioned to detect moderation effects (e.g., adequately powered). Scalability is planned (e19) and includes important goals for replication (e.g., intervention components in various languages (e29). A plan to investigate replication and other settings is also included (e44). Lastly, a cost effectiveness plan is included with sufficient details and a reasonable plan to address cost (e30).

Weaknesses:

Moderation effects involving cluster-levels (e.g., upper-levels) are nearly impossible to detect given the planned sample sizes.

Reader's Score: 4

3. **(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.**

Strengths:

Overall, the proposed evaluation plan does a very good job articulating project components, mediators, and outcomes, along with measurable thresholds for acceptable implementation that are planned. A logic model (e220) and conceptual framework (e30) provide a clear illustration of project components. Mediators are well described and illustrated in the theory of change (e31) and further defined in research question 3. The project includes a host of outcomes but all are well described in the narrative (e.g., students-e31; teachers-e33; families-e34). A well-organized list of outcomes and related data sources is also provided (e37). Lastly, measures for implementation are planned (e43-44) with some measures noted for teachers (e42) and families (e43).

Weaknesses:

Thresholds for implementation are planned but not included (e43-44).

Reader's Score: 4

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. **Competitive Preference Priority 1:**

Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners (up to 3 points)

Under this priority, an applicant must demonstrate how the project will be implemented by or in partnership with one or more of the following entities:

(a) Community colleges (as defined in the NIA)
(b) Historically Black colleges and universities (as defined in the NIA)
(c) Tribal Colleges and Universities (as defined in the NIA)
(d) Minority-serving institutions (as defined in the NIA)

Strengths:

na

Weaknesses:

na

Reader's Score: **0**

Competitive Preference Priority - Competitive Preference Priority 2

1. **Competitive Preference Priority 2:**

   Addressing the Impact of COVID-19 on Students, Educators, and Faculty: Community Asset-Mapping and Needs Assessment and Evidence-Based Instructional Approaches and Supports (up to 3 points).

   Projects that are designed to address the impacts of the COVID-19 pandemic, including impacts that extend beyond the duration of the pandemic itself, on the students most impacted by the pandemic, with a focus on underserved students and the educators who serve them through the following priority areas:

   (a) Conducting community asset-mapping and needs assessments that may include an assessment of the extent to which students, including subgroups of students, have become disengaged from learning, including students not participating in in-person or remote instruction, and specific strategies for reengaging and supporting students and their families; and

   (b) Using evidence-based instructional approaches and supports, such as professional development, coaching, ongoing support for educators, high-quality tutoring, expanded access to rigorous coursework and content across K-12, and expanded learning time to accelerate learning for students in ways that ensure all students have the opportunity to successfully meet challenging academic content standards without contributing to tracking or remedial courses.

Strengths:

na

Weaknesses:

na

Reader's Score: **0**

Status: Submitted
Last Updated: 08/05/2024 04:05 PM

Status: Submitted
Last Updated: 08/05/2024 01:46 PM

Technical Review Coversheet

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)
Reader #3: **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		15	15
Strategy to Scale			
1. Strategy to Scale		40	36
Quality of Project Design			
1. Project Design		20	18
Quality of the Project Evaluation			
1. Project Evaluation		25	0
	Sub Total	100	69
Priority Questions			
Competitive Preference Priority			
Competitive Preference Priority 1			
1. Promoting Equity		3	3
	Sub Total	3	3
Competitive Preference Priority			
Competitive Preference Priority 2			
1. Impact of COVID-19		3	0
	Sub Total	3	0
	Total	106	72

Technical Review Form

Panel #3 - Mid-Phase - 4: 84.411B

Reader #3: **********

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score: 15

Sub

1. **The extent to which the proposed project involves the development and demonstration of promising new strategies that build on, or are alternatives to, existing strategies.**

Strengths:

The application provides strong evidence that demonstrates promising new strategies and strategies that build upon existing strategies. Tapping into families as a participant in their child's academic learning in science is a key component of this project and one that has demonstrated moderate success in early versions and is often missing in project designs. Providing high-quality science instruction at the primary level can impact student achievement, confidence, and perceptions of self. This project provides professional learning to staff and STEM materials for use at home with families (e14). Including families may accelerate children's interest in the content (e17) and serves as an exciting new strategy in this project design.

The project is geared toward rural areas to expand upon some of the success found with early STEM instructional practices at the primary grade levels in urban settings (e16-17).

The project expands upon the success noted (e19) on the NURTURES program and the success found in early phases in urban areas (e17). The application provides evidence of how this proposal expands upon existing success.

Weaknesses:

No weaknesses noted.

Reader's Score: 15

Selection Criteria - Strategy to Scale

1. **The Secretary considers the strategy to scale the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 36

Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

Strengths:

The proposal presents very good evidence to identify and remedy many of the potential barriers to bring the project to scale. The project design is intended to research the impact of NURTURES on urban (early) and rural (mid) districts to ascertain generalizability to the national scale (e19). The applicant demonstrates the capability to bring the project to scale by acknowledging barriers faced in the past, anticipating potential barriers and providing solutions for each that include training, recruitment, and translating materials for families (e19-21). The partnership and commitment to participate from the school districts supports the project expansion and provides evidence to support the proposed level of scalability.

Weaknesses:

The proposal was lacking solutions to the barrier relating to the difficulty elementary schools have in finding time for science instruction. The application cites that on average only 17 minutes per day is spent on science (e15) but does not address how this project remedies that problem in the context of still needing to teach previously adopted math and ELA curricula.

Reader's Score: 8

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

Strengths:

The proposal includes plans to coordinate team members' efforts through a scheduled meeting process and assigned leads on various aspects of the project (e22). Cost monitoring assurances have been planned to ensure that the project remains within budget (e22). A summary chart (e23) of milestones, persons responsible, and timelines has been presented with a designation as to which team member takes the lead on each milestone. Georgia State University’s team will oversee the financial management aspects of the project (e24). The application provides excellent evidence to suggest that the management plan may be effective in ensuring that the project tasks are accomplished on time and within budget.

Weaknesses:

No weaknesses noted.

Reader's Score: 5

3. **(3) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

Strengths:

The proposal clearly demonstrates evidence to be able to bring the project to scale. Each team member is assigned a primary and a secondary role outlined in the management plan (e23-24) and appropriate to their level of expertise and experience. The roles are intended to provide oversight and ensure that all aspects of the plan are completed to bring the project to scale. The Principal Investigator and other team members have been identified and the role are listed along with a description of their responsibilities, which are appropriate in attaining the project goals. The team members are highly qualified and experienced (e25-27) in managing large scale projects.

Sub

Weaknesses:

No weaknesses noted.

Reader's Score: 10

4. **(4) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication.**

Strengths:

There is a comprehensive plan (e27) to disseminate the products widely and evidence to suggest that the research team members have done so in the past on other projects. Presentations at national science and research conferences and publications in widely read journals are part of the dissemination plan. The researchers, in collaboration with WestEd (e27) will distribute findings via a white paper to policymakers and education leaders. The application provides evidence (e28) of former participants' interest in expanding their use (home-school, purchase, and business models).

Weaknesses:

No weaknesses noted.

Reader's Score: 10

5. **(5) The likely utility of the products (such as information, materials processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings.**

Strengths:

The application provides good evidence that the product may be utilized in a variety of other settings. For example, since the first iteration of the program, the application cites growing interest in the product, such a military-connected districts and home-school parents (e28).

The Family Science Packs (e33) provide a unique aspect to a curriculum resource and will likely be appealing to districts in order to better engage families in the school community. The researchers (e28) are committed and poised to continue the distribution of materials in their respective roles in the National Science Foundation and Ohio State University.

Weaknesses:

It is difficult for the evaluator to ascertain the utility of the products in other settings as it is not abundantly clear how the project aims to address science, math, and English Language Arts (ELA) simultaneously as no examples of the curricular product design nor family engagement materials are included. The quarterly mailing (e33) of the family science packs may be cost prohibitive to replicate in other settings.

Reader's Score: 3

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 18

Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

   Strengths:

   The conceptual framework, Theory of Change, is an appropriate framework to serve as the foundation for the study as it aims to improve student outcomes by providing high- quality professional learning to elementary teachers (e31) and is grounded in the seven elements described. The logic model provided (e220) supports the theory and evidence of the framework is found throughout the application in the project design.

   Weaknesses:

   No weaknesses noted.

Reader's Score: 5

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

   Strengths:

   There is evidence that the objectives align to the goals and the measures align to the objectives. The professional learning component of the project is well thought out and developed, including ongoing support, which is crucial (e32-33) to continue to coach and develop the teacher's capacity for long-term retention and application.

   Weaknesses:

   There is a disconnect between the goals and desired outcomes regarding the professional development and retention as the professional learning takes place outside of the school day.

   The outcomes lack specific targets to assist the evaluator in determining whether the design is adequate in achieving the desired outcomes (e247).

Reader's Score: 3

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

   Strengths:

   The application has fully provided evidence to demonstrate the need for the treatment in the targeted area, the identified framework serves as a foundation for the design, and the goals and objectives are aligned to the desired outcomes. Effectively training rural teachers on high-quality instructional strategies, providing free materials to schools and families, and translating materials (e35) will address the needs of the target population in this proposed study.

   Weaknesses:

   No weakness noted.

Reader's Score: 10

Selection Criteria - Quality of the Project Evaluation

1. **The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

2. **(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.**

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

3. **(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.**

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. **Competitive Preference Priority 1:**

Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners (up to 3 points)

Under this priority, an applicant must demonstrate how the project will be implemented by or

in partnership with one or more of the following entities:

(a) Community colleges (as defined in the NIA)
(b) Historically Black colleges and universities (as defined in the NIA)
(c) Tribal Colleges and Universities (as defined in the NIA)
(d) Minority-serving institutions (as defined in the NIA)

Strengths:

The partnership with Georgia State University, a Predominantly Black Institution (e21) provides a mechanism for expanding the research to rural areas (e19) and meets the criteria for partnership with a minority-serving institution.

Weaknesses:

No weaknesses noted.

Reader's Score: 3

Competitive Preference Priority - Competitive Preference Priority 2

1. **Competitive Preference Priority 2:**

Addressing the Impact of COVID-19 on Students, Educators, and Faculty: Community Asset-Mapping and Needs Assessment and Evidence-Based Instructional Approaches and Supports (up to 3 points).

Projects that are designed to address the impacts of the COVID-19 pandemic, including impacts that extend beyond the duration of the pandemic itself, on the students most impacted by the pandemic, with a focus on underserved students and the educators who serve them through the following priority areas:

(a) Conducting community asset-mapping and needs assessments that may include an assessment of the extent to which students, including subgroups of students, have become disengaged from learning, including students not participating in in-person or remote instruction, and specific strategies for reengaging and supporting students and their families; and

(b) Using evidence-based instructional approaches and supports, such as professional development, coaching, ongoing support for educators, high-quality tutoring, expanded access to rigorous coursework and content across K-12, and expanded learning time to accelerate learning for students in ways that ensure all students have the opportunity to successfully meet challenging academic content standards without contributing to tracking or remedial courses.

Strengths:

Priority area not addressed.

Weaknesses:

Priority area not addressed.

Reader's Score: 0

Status: Submitted
Last Updated: 08/05/2024 01:46 PM

Status: Submitted
Last Updated: 08/05/2024 01:22 PM

Technical Review Coversheet

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)
Reader #4: **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		15	15
Strategy to Scale			
1. Strategy to Scale		40	37
Quality of Project Design			
1. Project Design		20	18
Quality of the Project Evaluation			
1. Project Evaluation		25	0
	Sub Total	100	70
Priority Questions			
Competitive Preference Priority			
Competitive Preference Priority 1			
1. Promoting Equity		3	3
	Sub Total	3	3
Competitive Preference Priority			
Competitive Preference Priority 2			
1. Impact of COVID-19		3	0
	Sub Total	3	0
	Total	106	73

Technical Review Form

Panel #3 - Mid-Phase - 4: 84.411B

Reader #4: **********

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score: 15

Sub

1. **The extent to which the proposed project involves the development and demonstration of promising new strategies that build on, or are alternatives to, existing strategies.**

Strengths:

There is strong evidence of a promising new strategy which builds on an existing program (p. e11;14-17). For example, the applicant notes that the proposed program is modeling their program after the Harvard Complementary Learning Model and is building on their work in the Early-phase grant (p. e14). This demonstrates their initiative building on an existing strategy.

A vital link in student success is parent and family involvement; this initiative incorporates that into their initiative as a major tenet of their program (p. e11).

There is strong evidence that the application is incorporating new strategies in their initiative such as integrating "STEM learning opportunities" into their program, building teachers' professional learning of the content, expand the number of schools served through the program, focus on community and family engagement, and build upon the previous academic scholarship of Cervetti (p. e15-17).

Furthermore, the existing program's research has been included in the What Works Clearinghouse (WWC) and shows moderate success (p. e18).

Weaknesses:

No weaknesses noted.

Reader's Score: 15

Selection Criteria - Strategy to Scale

1. **The Secretary considers the strategy to scale the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 37

Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

Strengths:

There is very good evidence of strategies to the two barriers addressed in their proposed program (p. e19-22). For example, the applicant notes that there are not enough teachers trained in the content area. The application proposes three solutions to the issue: Training the trainer, developing a facilitator training program, and recruiting facilitators. The applicant states that the train the trainer program would develop a training program to ensure that the proposed curriculum is internalized (p. e20). The next step the applicant proposes is creating a training program to train facilitators (p. e20). The final step in the solution is to offer facilitator certification.

The application also notes that children being more linguistically diverse is a barrier and provides the solution of determining which languages are needed for their family materials and translating their family materials into specific languages. This is a viable solution to a diverse student-body.

Weaknesses:

The recipient of the professional development being offered is not clear. The narrative notes that the initiative will train the trainer (p. e20) and the budget section (p. e235) notes that teachers will be paid a stipend for professional development. This unclear information impacts understanding who is expected to attend training and how the teacher or the trainer will benefit from the solution and build their content knowledge.

Reader's Score: 8

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

Strengths:

There is strong evidence of a management plan (p. e22-24). For example, weekly meetings will be held between the applicant partners – Georgia State University (GSU) and the University of Toledo (UT) (p. e22). Furthermore, the proposed program will conduct bi-weekly meetings with WestEd for evaluation mechanism check-ins which will support accountability for accomplishing the program tasks (p. e22). These accountability checks seem appropriate and should facilitate responsive action within the initiative.

Furthermore, the “Summary of Project Milestones, Team Responsibilities, and Timeline” (p. e23) is sufficient evidence of a clear and concise management plan. For example, the first action is to “Randomly assign schools as per Evaluation Plan” (p. e23). [redacted] is identified as the responsible party for the action, and the schedule shows that it will be implemented in January of the first year (p. e23). The tasks and timeline align with the expectation of the initiative and have an associated person assigned to the task which ensures accountability. There is sufficient evidence of clear and concise information regarding the responsibilities, timelines, and milestones for accomplishing project tasks which align with the proposed program narrative.

Weaknesses:

No weaknesses are noted.

Reader's Score: 5

3. **(3) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

Strengths:

There is strong evidence of the proposed program's capacity to bring the initiative to scale (p. e22-26). For example, the key personnel from each of the participating partners are well-qualified and experienced managing large-scale grants (p. e22). The application states that GSU will manage the financial segment of the initiative, provide professional learning, and manage the dissemination of information (p. e24). The applicant has demonstrated that GSU has the fiscal capability that GSU has received more than 200M in grant funding in FY 2023; GSU is in the Carnegie Mellon top research facilities (p. e24).

There is strong evidence of qualified personnel from each of the participating institutions (p. e25). For example, the principal investigator has been identified from each of the institutions (p. e22-26) which should ensure collaboration and consistency in programmatic decisions and progress. The GSU principal investigator (PI) has experience managing large-scale grant-funded programs such as the Early Phase grant initiative and knowledge and skills of teacher professional development and delivery (p. e25). This background knowledge and experience supports the successful implantation of the initiative.

Furthermore, the proposed program director has 12 years of experience and will manage the daily parts of the program in addition to support the webpage and adapt program materials as needed (p. e25).

The resumes and curriculum vitas for their proposed program personnel demonstrate the depth of knowledge and experience of the key personnel (p. e64-200). For example, the GSU PI has extensive experience in publication and presentations on teacher pedagogy in the field of science, professional development, teacher leadership, pre-service teacher training (p. e64-81) which should be an asset to the initiative. Overall, the extensive academic and scholarly grant experience the key personnel possess successfully support the capacity to scale up the proposed initiative.

Weaknesses:

No weaknesses are noted.

Reader's Score: 10

4. **(4) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication.**

Strengths:

There is strong evidence of the ability to broadly disseminate the information (p. e26-27). For example, sharing programmatic results and materials on social media, presenting at conferences, and publishing in journals such as Educational Leadership will help disseminate the program information (p. e26-27). Furthermore, sharing materials and research through K-12 educational conferences will reach public school teachers and administrators to increase interest and knowledge (p. e26). Submitting manuscripts to national research journals such as "Journal of Research in Science Teaching, Journal of Science Teacher Education, Journal of Research in Childhood Education," presenting program information and results at conferences, and posting research findings on the project website, in addition to writing a white paper/policy brief with early-grade science recommendations and making it

Sub

available to policymakers support wide-scale distribution (p. e27). These are suitable venues to broadly disseminate initiative information to support replication and development.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

5. **(5) The likely utility of the products (such as information, materials processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings.**

Strengths:

There is very good evidence of the likelihood of the proposed program being used in a variety of other settings (p. e26-27). For example, there is evidence that other districts such as Washington, New Mexico, and Virginia have made inquiries about the program (p. e27). The science center in Toledo, Ohio and homeschool families have reached out for more information about their program (p. e27).

Furthermore, at the end of the applicants last grant cycle the survey data from school personnel that have used the program have expressed interest in it (p. e27). These inquiries and survey responses are indicators that there is some evidence that the proposed program will be used in other settings.

Weaknesses:

There is no evidence of any strategies to promote the program in other settings. Furthermore, the cost to mail the curriculum to families might be cost prohibitive (p. e27).

Reader's Score: 4

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 18

Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

Strengths:

There is strong evidence of a conceptual framework to support the proposed program (p. e30). For example, the National Academy of Sciences (2010; 2012; 2015) research studies have been used to support the proposed framework addressing the use of science curriculum and teaching (p. e30-31). These research studies create a framework for making science curriculum accessible for all learners and are a best practice in the classroom.

The proposed program utilizes seven common conceptual elements undergird their proposed program such as “1) exploring interesting scientific phenomenon; 2) eliciting students’ ideas; 3) engaging in high-quality discourse; 4) making students’ thinking visible; 5) helping children make meaningful connections to their lived experiences; 6)

making connections among science, mathematics, and reading; and 7) using three-dimensional (3D1) learning and assessment techniques" (p. e31). These conceptual elements are threaded throughout the proposed program and successfully provide a framework for the initiative.

Weaknesses:

No weaknesses noted.

Reader's Score: 5

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

Strengths:

There is some evidence of clearly specified and measurable goals, objectives, and outcomes to support the initiative (p. e21; 33-35; 220). For example, the goal of the proposed program is to expand the proposed program which is based on an existing model (p. e21). There is evidence of objectives and outcomes (p. 33-35). For example, objective 9 is to increase ELA, math and science achievement and analyzing Galileo test scores are the measurement (p. e35).

Furthermore, the logic model outlines the basic tenets of the initiative such as inputs, activities, outputs, and short, mid, and long-term outcomes (p. e220). These tenets align with the program narrative.

Weaknesses:

The measurements do not contain targets which impacts understanding how the proposed program will achieve the objectives. For example, objective 6 notes increase family communication, and the measurement is a FUSE rubric. There is no percentage associated with the increase of family communication to successfully measure the success of the objective. Furthermore, the FUSE rubric is referenced but not included for reference to understand how this might inform the proposed program.

Reader's Score: 3

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

Strengths:

The design of the proposed program comprehensively addresses the needs of the target population (p. e35). For example, the proposed program notes that the 5th grade science proficiency rate for students is lower for rural students than urban students. This initiative aligns to what is needed for GA school for science instruction, providing training to teachers in rural schools, providing free materials to rural schools and families are identified as low socio-economic (p. e35). Addressing rural populations is one of the major tenets of the initiative (p. e11). Furthermore, the initiative plans to translate their materials into support English Language Learners (ELL) which supports a diverse population who often experience barriers in their schooling (p. e35). This aligns with the program narrative and supports meeting the needs of the target population.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

Selection Criteria - Quality of the Project Evaluation

1. **The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

   Strengths:

   n/a

   Weaknesses:

   n/a

   Reader's Score: 0

2. **(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.**

   Strengths:

   n/a

   Weaknesses:

   n/a

   Reader's Score: 0

3. **(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.**

   Strengths:

   n/a

   Weaknesses:

   n/a

   Reader's Score: 0

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. **Competitive Preference Priority 1:**

Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners (up to 3 points)

Under this priority, an applicant must demonstrate how the project will be implemented by or in partnership with one or more of the following entities:

(a) Community colleges (as defined in the NIA)
(b) Historically Black colleges and universities (as defined in the NIA)
(c) Tribal Colleges and Universities (as defined in the NIA)
(d) Minority-serving institutions (as defined in the NIA)

Strengths:

Competition Preference Priority 1 was successfully addressed (p. e14). Georgia State University is classified as a Historically Black colleges and universities (p. e14).

Weaknesses:

No weaknesses noted.

Reader's Score: 3

Competitive Preference Priority - Competitive Preference Priority 2

1. **Competitive Preference Priority 2:**

Addressing the Impact of COVID-19 on Students, Educators, and Faculty: Community Asset-Mapping and Needs Assessment and Evidence-Based Instructional Approaches and Supports (up to 3 points).

Projects that are designed to address the impacts of the COVID-19 pandemic, including impacts that extend beyond the duration of the pandemic itself, on the students most impacted by the pandemic, with a focus on underserved students and the educators who serve them through the following priority areas:

(a) Conducting community asset-mapping and needs assessments that may include an assessment of the extent to which students, including subgroups of students, have become disengaged from learning, including students not participating in in-person or remote instruction, and specific strategies for reengaging and supporting students and their families; and

(b) Using evidence-based instructional approaches and supports, such as professional development, coaching, ongoing support for educators, high-quality tutoring, expanded access to rigorous coursework and content across K-12, and expanded learning time to accelerate learning for students in ways that ensure all students have the opportunity to successfully meet challenging academic content standards without contributing to tracking or remedial courses.

Strengths:

The application does not address Competitive Preference Priority 2.

Weaknesses:

The application does not address Competitive Preference Priority 2.

Reader's Score: **0**

Status: Submitted
Last Updated: 08/05/2024 01:22 PM

Status: Submitted
Last Updated: 08/05/2024 11:25 AM

Technical Review Coversheet

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)
Reader #5: **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		15	15
Strategy to Scale			
1. Strategy to Scale		40	38
Quality of Project Design			
1. Project Design		20	19
Quality of the Project Evaluation			
1. Project Evaluation		25	0
	Sub Total	100	72
Priority Questions			
Competitive Preference Priority			
Competitive Preference Priority 1			
1. Promoting Equity		3	3
	Sub Total	3	3
Competitive Preference Priority			
Competitive Preference Priority 2			
1. Impact of COVID-19		3	0
	Sub Total	3	0
	Total	106	75

Technical Review Form

Panel #3 - Mid-Phase - 4: 84.411B

Reader #5: **********

Applicant: Georgia State University Research Foundation, Inc. (S411B240033)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score: 15

Sub

1. **The extent to which the proposed project involves the development and demonstration of promising new strategies that build on, or are alternatives to, existing strategies.**

Strengths:

The applicant provided comprehensive information regarding building upon a set of existing strategies. The applicant presented a clearly outlined and promising proposal based on the demonstration of these strategies. These strategies included focusing on STEM in early elementary classrooms (e15), professional development for elementary teachers to build content and pedagogical knowledge (e16), moving from a previous project focused on urban schools to one more focused on rural schools (e16-17), expanding the previous project to include on more family and community engagement (e17) and seeking ways to use science to improve student achievement across other academic subjects (e18).

Weaknesses:

No weakness noted.

Reader's Score: 15

Selection Criteria - Strategy to Scale

1. **The Secretary considers the strategy to scale the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 38

Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

Sub

Strengths:

The applicant sufficiently identified specific strategies to address two identified barriers from the past that may prevent them from reaching the level of scale described in the process. They cited strategies to address these barriers. The first barrier, insufficient number of elementary teachers with science expertise (e19), will be addressed via a train-a-trainer program (e20), a facilitator certification process (e20) and by recruiting facilitators (e20). Additional information regarding these strategies (e28-29) provided context for the development of the train-a-trainer program using an online training program with facilitator examples, which will assist in creation of a scenario-based certification process. The second barrier was related to the issue of school children being more linguistically diverse (e20). This barrier will be addressed by determining which additional languages will be utilized in the creation of teaching materials and by using the foreign language department at the applicant's university (e21).

Weaknesses:

The applicant provided minimal information regarding the actual training and professional development to be provided by the project trainers.

Reader's Score: 8

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

Strengths:

The applicant clearly detailed an extensive management plan which will achieve the objectives of the project on time and within budget. A timeline listing the major milestones of the project was provided (e23-24) and provided responsible parties for each milestone. The applicant will serve as the primary fiscal agent for the project (e24), while the University of Toledo will develop the primary project design and delivery (e25). Salaries and other project tasks and expenses were clearly delineated by each year of the project (e231-240). The management team will meet every other week to ensure project tasks and the budget are proceeding on time (e22).

Weaknesses:

No weakness noted.

Reader's Score: 5

3. **(3) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

Strengths:

The applicant provided clear information regarding the project capacity to bring the project to scale on a regional level. The applicant adequately described the project personnel roles and responsibilities (e24-27). All significant key personnel have advanced degrees and expertise in such areas as professional development, science education, and family engagement. The applicant also clearly described the partnership with the project evaluator, WestED, who will oversee the research regarding the project and conduct a project evaluation.

Weaknesses:

No weakness noted.

Reader's Score: 10

Sub

4. **(4) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication.**

Strengths:

The applicant clearly provided several mechanisms by which they will disseminate project information (e27). The applicant will use social media and present at teacher-oriented conferences such as the Georgia Association of Science Teachers and other practitioner conferences such as those offered by the Council of Great City Schools, the School Superintendents Association, and the Association for Supervision and Curriculum Development. A project website will be constructed to provide free access to project materials (e27). Research findings from the project will be presented at research conferences such as the National Association for Research in Science Teaching and the Association for Science Teacher Education (e27). Lastly, a white paper for policymakers and educational leaders will be written and disseminated.

Weaknesses:

No weakness noted.

Reader's Score: 10

5. **(5) The likely utility of the products (such as information, materials processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings.**

Strengths:

The applicant clearly discussed the high likelihood for the utility of the products from the project to demonstrate usefulness in other settings. The curriculum from the previous project is currently being used in a major U.S. school district (e27). Communication with districts in Washington, New Mexico and Virginia have expressed interest as have home-school parents (e28). Project personnel have also participated in training to help researchers translate project products into commercially viable businesses, so it appears highly likely the project products have the potential for high utility.

Weaknesses:

No weakness noted.

Reader's Score: 5

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 19

Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

Sub

Strengths:

The applicant presented a conceptual framework well-grounded in seven common elements: exploring scientific phenomena, eliciting student ideas, engaging in high-quality discourse, making student's thinking visible, helping students making connections with lived experiences and connections between science, math and reading and using three-dimensional learning and assessment techniques (e30-31). Project innovation was demonstrated through the project's theory of change (e31), which outlines the relationships between project activities and project outcomes. An additional logic model (e220) further clarified the project inputs, activities, outputs, and short-term, mid-term, and long-term outcomes.

Weaknesses:

No weakness noted.

Reader's Score: 5

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

Strengths:

The applicant provided a fairly comprehensive description of the extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable. The logic model (e220) provided the project program inputs, activities, outputs, and short-term, mid-term, and long-term outcomes. All of the outcomes appear to be measurable using qualitative or quantitative methods, and particularly the long-term outcomes of improved science learning outcomes, improved mathematics learning outcomes and improved ELA learning outcomes can be measured via standardized tests. The objective of family engagement can be measured through participation in community events (e34) and surveys of family engagement. The additional objective of teacher professional development can be measured by participation in a summer institute (e32) and professional learning communities (e32).

Weaknesses:

The applicant omitted aspirational targets for the outcomes listed in the logic model (e220).

Reader's Score: 4

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

Strengths:

The applicant outlined the challenges faced in increasing science achievement, particularly in elementary grades in rural schools (e35). The project outlines a series of strategies to address the needs of this demographic group, including targeted professional development for teachers in rural areas as well as peer support (e35), providing free learning materials to rural families and those in poverty, as well as translating these materials to fit the needs on non-English speakers (e35). The project approach is reasonable, grounded in research and should meet the target population's needs in convincing fashion.

Weaknesses:

No weakness noted.

Reader's Score: 10

Selection Criteria - Quality of the Project Evaluation

1. **The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:**

Reader's Score: 0

Sub

1. **(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

2. **(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.**

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

3. **(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.**

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. **Competitive Preference Priority 1:**

Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners

(up to 3 points)

Under this priority, an applicant must demonstrate how the project will be implemented by or in partnership with one or more of the following entities:

(a) Community colleges (as defined in the NIA)
(b) Historically Black colleges and universities (as defined in the NIA)
(c) Tribal Colleges and Universities (as defined in the NIA)
(d) Minority-serving institutions (as defined in the NIA)

Strengths:

The applicant presented a project implemented by their university (Georgia State University) the only comprehensive predominantly Black Institution in the United States (e21).

Weaknesses:

No weakness noted.

Reader's Score: 3

Competitive Preference Priority - Competitive Preference Priority 2

1. **Competitive Preference Priority 2:**

Addressing the Impact of COVID-19 on Students, Educators, and Faculty: Community Asset-Mapping and Needs Assessment and Evidence-Based Instructional Approaches and Supports (up to 3 points).

Projects that are designed to address the impacts of the COVID-19 pandemic, including impacts that extend beyond the duration of the pandemic itself, on the students most impacted by the pandemic, with a focus on underserved students and the educators who serve them through the following priority areas:

(a) Conducting community asset-mapping and needs assessments that may include an assessment of the extent to which students, including subgroups of students, have become disengaged from learning, including students not participating in in-person or remote instruction, and specific strategies for reengaging and supporting students and their families; and

(b) Using evidence-based instructional approaches and supports, such as professional development, coaching, ongoing support for educators, high-quality tutoring, expanded access to rigorous coursework and content across K-12, and expanded learning time to accelerate learning for students in ways that ensure all students have the opportunity to successfully meet challenging academic content standards without contributing to tracking or remedial courses.

Strengths:

No strengths noted.

Weaknesses:

The applicant did not address this competitive preference priority.

Reader's Score: 0

Status: Submitted
Last Updated: 08/05/2024 11:25 AM