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

Technical Review Coversheet

Applicant: WestEd (S411B220027)
Reader #1:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	14
Sub Total	15	14
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	35	27
Sub Total	35	27
Selection Criteria		
Quality of Project Design		
1. Project Design	15	14
Quality of the Project Evaluation		
1. Project Evaluation	35	0
Sub Total	50	14
Priority Questions		
Competitive Preference Priority		
Competitive Preference Priority 1		
1. Equity	3	3
Competitive Preference Priority 2		
1. COVID-19	3	3
Sub Total	6	6
Total	106	61

Technical Review Form

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

Applicant: WestEd (S411B220027)

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: 14

Sub

1. **(1) The national significance of the proposed project.**

   Strengths:

   The applicant clearly demonstrates that the need for math interventions for early childhood education is of national significance. The gaps that are presented in mathematics achievement include significant gaps between students in low social economic groups and those who are not in those groups. The use of tier one programming such as Pre-K Mathematics has not had long-term positive effect on student achievement in mathematics. The interventions planned for the proposed project will appropriately address early mathematics instruction.

   Weaknesses:

   No weaknesses found.

   Reader's Score: 5

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

   Strengths:

   The applicant clearly demonstrates the use of promising new strategies related to the use of tiered math instruction for Pre-K and integration of both tier I and tier 2 math interventions. These new strategies are based on existing strategies. The new strategies include the use of tiered math in the elementary grades and the use of Pre-K Mathematics. Both of these strategies have found some success in the areas of application; however, little research and specific strategies for Pre-K tiered math programming is available.

   Weaknesses:

   The applicant does not clearly define why the existing strategies have not been widely adopted by early childhood programs. The applicant does not include clearly defined strategies as to how the proposed project will complete effective outreach that promotes more extensive use of the program. .

   Reader's Score: 4

3. **(3) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

   Strengths:

   The applicant clearly demonstrates the potential contributions of the proposed project to increase knowledge and understanding of education problems and issues. The proposed project has the potential of effectively increasing knowledge of the effect of early interventions in math using a tiered Pre-K math program.

   Weaknesses:

   No weaknesses found.

   Reader's Score: 5

Strategy to Scale - 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: 27

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 applicant clearly identifies two specific strategies to address particular barriers that have prevented the applicant from reaching the level of scale that is proposed by the project. One of those barriers is the insufficient professional preparation to implement a tiered early math program effectively. One of the strategies to address this barrier is to provide professional development using "train the trainers". This barrier and strategies are appropriately linked and will support the ability of the applicant to reach the level of scale desired for this project.

   Weaknesses:

   The second barrier identified is that insufficient evidence about the efficacy of tiered early math instruction exists. However, the applicant does not clearly demonstrate that this is a significant barrier and why it has not been addressed previously. It is also unclear how the lack of evidence would impede the level of scale for the proposed project.

   Reader's Score: 6

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 management plan is comprehensive and provides a clear pathway for the project being completed on time and within budget. The management plan includes a general overview of the responsibilities for the tasks to be completed. Those responsibilities are clearly supported by specific timelines and milestones for the project tasks to

be completed. To assist the management team, the timelines and milestones are clearly divided into the elements of curriculum training and implementation and evaluation for each year of the proposed project. Each of the major tasks are aligned to the key personnel that will be responsible for the activity. For example, the project director and Co-PI's train regional trainers in tiered early math instruction. These efforts will clearly guide the management team to completing the tasks on time and within budget.

Weaknesses:

The proposed project relies heavily on the train the trainers model to provide effective professional development. However, the applicant does not clearly identify the persons in those positions or the level of training and experiences necessary for the regional trainers in WestEd's national network. Without that information, it is difficult to determine if those individuals will be able to address the responsibilities of that component of the proposed project.

Reader's Score: 4

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 clearly demonstrates that the key personnel for the proposed project include qualified personnel for the support of the scope of the project. These individuals have experience and training in grant management, mathematics and educational leadership. The support of these key persons coupled with the management capacity of WestEd ensures that the project will be brought to scale at least at a regional level.

Weaknesses:

No weaknesses found.

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:

The applicant clearly demonstrates two key strategies that will provide the pipeline for broadly disseminating information on the project to support further development and replication. Those mechanisms include the dissemination of project findings to key stakeholders such as public preschool programs. To disseminate the research findings state and regional conferences will utilized.

Weaknesses:

The applicant identifies that the independent evaluator will be collecting and analyzing the data. However, the applicant does not specifically identify who will complete the report writing and dissemination. Therefore, it is not clear who will be responsible for disseminating the information.

Sub

Reader's Score: 7

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: 14

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 applicant clearly demonstrates that the conceptual framework for the proposed research and demonstration of activities is based on the significance of early mathematics learning beginning at the informal mathematical knowledge level that is used to build on the acquisition of formal early mathematical knowledge. These foundations support the two tiered approach for the use of Pre-K Mathematics and Pre-K Mathematics tutorial. The framework relies on extensive training of the educators working with the students in Pre-K programming.

   Weaknesses:

   No weaknesses found.

   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 clearly demonstrates the alignment of specific and measurable goals, objectives and outcomes. Each one of the goals is addressed by specific strategies. Goal one relates to the training of public preschool program staff to effectively implement a tiered early math program. This goal is supported by measurable and specific objectives and performance measures that include both qualitative and quantitative tools. These efforts ensure that the project is measured for success.

   Weaknesses:

   No weaknesses found.

   Reader's Score: 5

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.**

Sub

Strengths:

The proposed project successfully addresses the needs of some of the target population. The programming interventions including the Tier one and Tier two activities will address the needs of the children who have limited exposure to informal and formal mathematics knowledge.

Weaknesses:

The applicant identifies in the project abstract that the tiered support programming was to prepare Native American for Elementary School mathematics. The applicant does indicate that the evaluation will include an over-sample of Native American students. However, the applicant does not include in the project design elements any information specifically addressing the Native American population.

Reader's Score: 4

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.**

Sub

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

4. **(4) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. **Projects designed to promote educational equity and adequacy in resources and opportunity for underserved students in middle school or high school that examine the sources of inequity and inadequacy and implement responses, including rigorous, engaging, and well-rounded (e. g., that include music and the arts) approaches to learning that are inclusive with regard to race, ethnicity, culture, language, and disability status and prepare students for college, career, and civic life, including one or more of the following:**

   (a)   Student-centered learning models that may leverage technology to address learner variability (e.g., universal design for learning (as defined in this notice), K–12 competency-based education (as defined in this notice), project-based learning, or hybrid/blended learning) and provide high-quality learning content, applications, or tools.
   (b)   Middle school courses or projects that prepare students to participate in advanced coursework in high school.
   (c)   Advanced courses and programs, including dual enrollment and early college programs.
   (d)   Project-based and experiential learning, including service and work-based learning.
   (e)   High-quality career and technical education courses, pathways, and industry-recognized credentials that are integrated into the curriculum.

   Strengths:

   The applicant clearly meets this competitive priority by providing a student-centered learning model of tiered early mathematics learning. Teachers and tutors will learn to use web-based technology to help students progress. The scaffolding processes used in this proposed project have a focus on equity.

   Weaknesses:

   No weaknesses found.

Reader's Score: 3

Competitive Preference Priority - Competitive Preference Priority 2

1. **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:**

   (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 applicant clearly identified the negative results of the interruption for early learners in the area of attendance and math regression. The proposed project will address the needs of those students who are suffering from loss in learning opportunities. The professional learning experiences will help to ensure teacher support the students and families in expanding the informal and formal mathematics learning opportunities.

   Weaknesses:

   No weaknesses found.

   Reader's Score: 3

Status: Submitted
Last Updated: 07/28/2022 11:24 AM

Status: Submitted
Last Updated: 07/28/2022 11:29 AM

Technical Review Coversheet

Applicant: WestEd (S411B220027)
Reader #4:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	13
Sub Total	15	13
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	35	26
Sub Total	35	26
Selection Criteria		
Quality of Project Design		
1. Project Design	15	12
Quality of the Project Evaluation		
1. Project Evaluation	35	0
Sub Total	50	12
Priority Questions		
Competitive Preference Priority		
Competitive Preference Priority 1		
1. Equity	3	3
Competitive Preference Priority 2		
1. COVID-19	3	3
Sub Total	6	6
Total	106	57

Technical Review Form

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

Applicant: WestEd (S411B220027)

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: **13**

    Sub

1. **(1) The national significance of the proposed project.**

   Strengths:

   The applicant states the appearance of gaps in math learning in early childhood, which can persist overtime as students' progress through higher grade levels (page e22). These differences are due to preschool learning environments which, if corrected, can lead to fewer gaps at early grade levels.

   Weaknesses:

   No weaknesses noted.

   Reader's Score: **5**

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

   Strengths:

   The applicant proposes an alternative to the two most widely used math curricula at public preschool programs, which have been found to be ineffective at supporting mathematics learning (page e22). The applicant describes the need for tier 1 and tier 2 intervention curriculum in pre-k math classrooms.

   Weaknesses:

   The applicant notes the success of Pre-K Mathematics program, yet does not describe why it is not widely adopted in public pre-k schools. It is not clear if the proposed project will succeed if the curriculum on which the proposed project is based is not gaining traction in public schools.

   Reader's Score: **3**

3. **(3) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

Sub

Strengths:

The proposed project will illuminate the effectiveness of a tiered math intervention for pre-k students (page e25). The project also aims to recruit enough Native American children to the study in order to test the effectiveness of the program specifically for this population.

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Strategy to Scale - 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: 26

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 applicant identified insufficient professional preparation to implement tiered early math program as a barrier, which will be addressed by a train the trainers PD model using WestEd's national network of early math trainers and 8-10 in-classroom support visits (page e27).

Weaknesses:

The applicant identified lack of evidence for the tired approach to math instruction as a barrier. But it is not clear how this barrier has prevented the applicant, in the past, to reach the scale proposed in the application in order to study effectiveness. The applicant could have added additional barriers to scale, e.g. adoption by pre-k public schools.

Reader's Score: 5

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 lists the objectives broken into tasks with relevant school years and quarters (appendix J).

Weaknesses:

The applicant does not clearly state responsible personnel for each task/objective in the management plan.

Reader's Score: 3

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 project involves highly qualified personnel from WestEd and an independent evaluation team (page e32). The teams have previously worked on projects that are equivalent in scale to the proposed project.

   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:

   The applicant has plans to disseminate findings to public pre-school programs and at conferences (page e34).

   Weaknesses:

   The applicant does not discuss how findings from the project will be disseminated to the research community for this specific project. They specify how findings have been disseminated in the past.

   Reader's Score: 8

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: 12

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 applicant lists the link between tier 1 and tier 2 small group interventions and student outcomes by using the logic model (e127). The applicant has described high-quality frameworks that are the basis for both interventions (e24).

   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.**

Sub

Strengths:

The applicant describes two goals and presents aligned project objectives and measures that are specified and measurable (e37).

Weaknesses:

The applicant does not list dissemination of findings as a key goal/objective which would have made this an excellent application Also presenting goals and objectives as a table would have been made the content more understandable.

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 includes Spanish and English versions for take home activities (e47). The applicant provides less challenging activities for students who are not yet ready for certain math concepts (tier 2 intervention). A screener is provided for teachers to be able to group students according to readiness for math concepts.

Weaknesses:

The applicant describes Native American population as a key demographic, but does not describe if any of the take home activities will be translated in Native American languages.

Reader's Score: 3

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:

Weaknesses:

Reader's Score:

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

Sub

Strengths:

Weaknesses:

Reader's Score:

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:

Weaknesses:

Reader's Score:

4. **(4) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

Strengths:

Weaknesses:

Reader's Score:

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. **Projects designed to promote educational equity and adequacy in resources and opportunity for underserved students in middle school or high school that examine the sources of inequity and inadequacy and implement responses, including rigorous, engaging, and well-rounded (e. g., that include music and the arts) approaches to learning that are inclusive with regard to race, ethnicity, culture, language, and disability status and prepare students for college, career, and civic life, including one or more of the following:**

(a) Student-centered learning models that may leverage technology to address learner variability (e.g., universal design for learning (as defined in this notice), K–12 competency-based education (as defined in this notice), project-based learning, or hybrid/blended learning) and provide high-quality learning content, applications, or tools.
(b) Middle school courses or projects that prepare students to participate in advanced coursework in high school.
(c) Advanced courses and programs, including dual enrollment and early college programs.
(d) Project-based and experiential learning, including service and work-based learning.
(e) High-quality career and technical education courses, pathways, and industry-recognized credentials that are integrated into the curriculum.

Strengths:

The applicant states that student-centered learning design is a cornerstone of the proposed web-based early math intervention program (page e20).

Weaknesses:

No weaknesses noted.

Reader's Score: 3

Competitive Preference Priority - Competitive Preference Priority 2

1. **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:**

   (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 applicant's proposed project will provide in-service professional development in mathematics for early childhood teachers, and a tiered early math curriculum for teachers to use. The applicant provides evidence that shows high-need children are entering preschool with less mathematical knowledge than before the pandemic (page e21). The applicant's tiered approach will help these students successfully meet challenging academic content and get back on track.

   Weaknesses:

   No weaknesses noted.

Reader's Score: 3

Status: Submitted
Last Updated: 07/28/2022 11:29 AM

Technical Review Coversheet

Applicant: WestEd (S411B220027)
Reader #5:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	13
Sub Total	15	13
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	35	26
Sub Total	35	26
Selection Criteria		
Quality of Project Design		
1. Project Design	15	12
Quality of the Project Evaluation		
1. Project Evaluation	35	0
Sub Total	50	12
Priority Questions		
Competitive Preference Priority		
Competitive Preference Priority 1		
1. Equity	3	3
Competitive Preference Priority 2		
1. COVID-19	3	3
Sub Total	6	6
Total	106	57

Technical Review Form

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

Applicant: WestEd (S411B220027)

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: 13

Sub

1. **(1) The national significance of the proposed project.**

   Strengths:

   The applicants provide a strong rationale as to the significance of the current project. The explicitly connect the need to improve mathematical outcomes for early childhood students in order to support positive long-term mathematical outcomes (pp. E22-24). The applicants provide context for early childhood students in general, but also focus in on the need to increase access to quality instruction and activities for Native American students (p. E24).

   Weaknesses:

   No weaknesses are noted.

   Reader's Score: 5

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

   Strengths:

   The applicants propose to deliver three new strategies that will promote tiered instruction in Pre-K (p. E25) in the area of mathematics. Specifically, this includes tier 1, tier 2 and math screening tool to identify those students at-risk in the area of mathematics.

   Weaknesses:

   Details are missing as to whether or not any existing evidence-based approaches exist in early childhood mathematics. There was not a specific connection to understand why the instructional practices that are empirically supported in elementary noted in the application (p. E24) are not already widely adopted at the PreK level.

   Reader's Score: 3

3. **(3) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

   Strengths:

   The applicants provide direct connections to increased knowledge that the proposed project will contribute to the understanding of educational problems, issues, or effective strategies (pp. E25). Specifically, they indicate it will contribute to understanding various high-needs populations in early childhood, information on tiered instruction in other academic domains, and the influence of general cognitive domains on more specific domains. Finally, the applicants indicate the potential to contribute knowledge on learning loss due to the COVID-19 pandemic.

   Weaknesses:

   No weaknesses are noted.

   Reader's Score: 5

Strategy to Scale - 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: 26

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 applicants identify two primary barriers which have prevented the project team from scaling the proposed intervention in the past. These consist of professional development (i.e., training early childhood educators) and the lack of empirical evidence on early childhood math instruction to help educators make data-driven decisions.

   Weaknesses:

   Some details were missing to determine the feasibility of the proposed strategies. Specifically for strategies 1.1 and 1.2. It would help to have information on the how likely schools would be to implement the high number of required professional learning hours, along with fidelity visits required in the strategy. Second, it was difficult to interpret the second presented barrier. It was unclear was the applicants meant in conveying the need to establish empirical evidence for data driven decision making. Data driven decisions can still be made outside the context of an empirically sound intervention. Therefore, it was difficult to determine if the proposed strategies 2.1 and 2.2 will be effective.

   Reader's Score: 5

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.**

Sub

Strengths:

The applicants provide a set of program project tasks that will be completed in each year of the project, along with identifying which partner will be responsible for ensuring completion of the tasks (pp. E32-33). Each partner is tasked with a certain component related to one of three project objectives that will be addressed throughout the project in order to work towards completion.

Weaknesses:

While the applicants provide a table (pp. E32-33) and in Appendix J (p. E134) of the application, the table in the narrative is broken into year increments and the Appendix J is broad timeframes by quarter instead of more clearly defined milestones to identify specifically when milestones will be met within that year (e.g., weekly or monthly). The table also does not provide specific details about personnel who will be responsible for ensuring milestones are met. Therefore, it is difficult to determine if the proposed project tasks will be completed on time and within budget.

Reader's Score: 3

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:

This project team (pp. E31-33) is well qualified to bring the proposed project to scale. The team spans areas of research, education, professional development, mathematics and evaluation who have clearly conducted prior work to develop and demonstrate preliminary evidence of prior work.

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:

The applicants have a clear history of dissemination and well-established outlets to reach the research, policy, technology, and early childhood education sectors (pp. E33-34) based on specific examples provided on p. E34 and included CVs of proposed project personnel. This includes managing large federal grants, collaborating with other institutions to disseminate work and created products (pp. E35), and conveying information directly to key stakeholders through formal and informal dissemination outlets.

Weaknesses:

The applicants lack some details on the specific approach for dissemination of this project with certain stakeholder groups. For example, the applicants do not provide details as to how they will disseminate findings in the scientist community specific to this project. They give examples of prior dissemination to this stakeholder group but lack specificity for the current project.

Reader's Score: 8

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: **12**

  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 applicants provide a comprehensive conceptual framework for all of the components that will be integrated into the tiered mathematics program approach (pp. E34-36). Each component is identified and supported by empirical evidence. They are distinctly selected based on the underlying need to increase student outcomes as presented in the example Logic Model in Appendix G.

   Weaknesses:

   No weaknesses are 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 applicants identify project goals which are supported by objectives, measures, and outcomes (pp. E36-37). The measures are described and specific increasing the likelihood that the goals, objectives, and outcomes will be achieved for the proposed project. The team of professionals implementing the proposed objectives are well qualified and have carried out goals and objectives in previous federally funded projects (Appendix B).

   Weaknesses:

   The goals, objectives, and project outcomes were difficult to follow in the presented format. Specifically trying to understand the role of the strategy insertion for each objective. This information presented in a table or figure would provide clarity for each presented goal.

   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 applicants indicate that they will address the mathematical needs of low-income students in early childhood education settings (p. E39).

   Weaknesses:

   Overall, this factor is underdeveloped. The applicants state in the title of the project and some aspects of the significance they are targeting Native American students in early childhood settings. However, the applicants do not state their target population of Native American students specifically in this factor. The target population switches from Native American, to low-income, to those at-risk of mathematical learning difficulties. The applicant fell short in making a direct connection to the target population with specific details. Without additional information, it is difficult to determine the extent to which this project will successfully address the needs of the target population in the area of early childhood mathematics achievement.

Sub

Reader's Score: 3

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

4. (4) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

Sub

    Strengths:

    N/A

    Weaknesses:

    N/A

    Reader's Score: 0

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. Projects designed to promote educational equity and adequacy in resources and opportunity for underserved students in middle school or high school that examine the sources of inequity and inadequacy and implement responses, including rigorous, engaging, and well-rounded (e. g., that include music and the arts) approaches to learning that are inclusive with regard to race, ethnicity, culture, language, and disability status and prepare students for college, career, and civic life, including one or more of the following:

    (a)   Student-centered learning models that may leverage technology to address learner variability (e.g., universal design for learning (as defined in this notice), K–12 competency-based education (as defined in this notice), project-based learning, or hybrid/blended learning) and provide high-quality learning content, applications, or tools.
    (b)   Middle school courses or projects that prepare students to participate in advanced coursework in high school.
    (c)   Advanced courses and programs, including dual enrollment and early college programs.
    (d)   Project-based and experiential learning, including service and work-based learning.
    (e)   High-quality career and technical education courses, pathways, and industry-recognized credentials that are integrated into the curriculum.

    Strengths:

    This project provides an approach which promotes equity for students in PreK settings that do not have access to empirically validated mathematics curriculum. This includes a screening tool to identify students who may be at risk of future math difficulties.

    Weaknesses:

    No weaknesses are noted.

Reader's Score: 3

Competitive Preference Priority - Competitive Preference Priority 2

1. 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:

    (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 applicants provide a baseline of what learning loss in early childhood education for students due to the COVID-19 pandemic based on their own data collection. These baseline data provide a clear starting place to determine if the proposed intervention will improve COVID-19 related learning loss in the area of early childhood mathematics specifically.

Weaknesses:

No weaknesses are noted.

Reader's Score: 3

Status: Submitted
Last Updated: 07/28/2022 11:14 PM

Status: Submitted
Last Updated: 07/28/2022 02:55 PM

Technical Review Coversheet

Applicant: WestEd (S411B220027)
Reader #2:   **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		15	0
	Sub Total	15	0
Strategy to Scale			
Strategy to Scale			
1. Strategy to Scale		35	0
	Sub Total	35	0
Selection Criteria			
Quality of Project Design			
1. Project Design		15	0
Quality of the Project Evaluation			
1. Project Evaluation		35	31
	Sub Total	50	31
Priority Questions			
Competitive Preference Priority			
Competitive Preference Priority 1			
1. Equity		3	0
Competitive Preference Priority 2			
1. COVID-19		3	0
	Sub Total	6	0
	Total	106	31

Technical Review Form

Panel #2 - EIR Mid-Phase - 3 - 1: 84.411B

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

Applicant: WestEd (S411B220027)

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. **(1) The national significance of the proposed project.**

>> **Strengths:**
>> N/A

>> **Weaknesses:**
>> N/A

>> **Reader's Score:**   0

> 2. **(2) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.**

>> **Strengths:**
>> N/A

>> **Weaknesses:**
>> N/A

>> **Reader's Score:**   0

> 3. **(3) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

>> **Strengths:**
>> N/A

>> **Weaknesses:**
>> N/A

Sub

Reader's Score: 0

Strategy to Scale - 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

   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.**

Sub

    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

Sub

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: 31

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 evaluation plan will meet What Works Clearinghouse without reservations if the plan is implemented with fidelity. The evaluators are highly qualified in all the criteria related to WWC standards, as demonstrated by the details and thoroughness of addressing all but one area associated with the standards. The experimental design will be a randomized control trial (RCT), where the unit of randomization will occur at the classroom level. There is a non-zero probability of the units being in either the intervention or control group. The applicant thoroughly discussed attrition mitigation procedures and that overall and differential attrition will be measured throughout and at the end of the evaluation. For instance, there will be regular check-ins with key stakeholders implementing the study to keep them motivated. Furthermore, intervention teachers will be given a stipend as a motivating factor to stay engaged in the study. In addition, consent by all participants will be determined and gathered before the randomization takes place; this should mitigate non-participation. Related to contamination, the applicant will utilize an intent-to-treat analysis to ensure units in the analytic sample are those initially assigned to either the treatment or control group. The sample size is based on 42 treatment and 42 control classrooms. This sample size provides power at .80, the acceptable standard, and will yield a minimum detectable effect size of .25, which is supported by the literature on Pre-K mathematics evidence studies.

   Weaknesses:

   The only WWC without reservation area of concern is the applicant did not address how missing data will be handled, such as missing completely at random (MCAR), missing at random (MAR) or not missing at random (NMAR).

   Reader's Score: 19

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's formative and summative evaluation is well-designed. The formative evaluation will be periodic with data collection utilizing multiple methods. For instance, there will be curriculum coaches conducting classroom observations of the implementation of the intervention (pg. e49). The formative evaluation will yield data on implementation fidelity, and the summative evaluation will yield important data on impact outcomes. This combined information is necessary to guide effective replication strategies in other settings. Furthermore, the applicant already has implementation rubrics that can be used in any new environment (Appendix J).

Sub

Weaknesses:

Given the experience of the evaluators, it would have strengthened this factor if more specificity related to conferences and journals were provided. For instance, specifying the Journal of Research Educational Effectiveness (JREE) as an outlet would demonstrate the applicant's understanding of which conferences and journals would allow for greater dissemination reach.

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:

The applicant discussed appropriate key project components in the logic model and in the narrative. The applicant also discussed mediators and moderators in an appropriate context, as these two independent third variables operate and impact the dependent variable (outcome) differently. The applicant will have a suitable statistical model for assessing mediators and moderators (pg. e53). The applicant in the narrative (pg. e46-e47) comprehensively provided details related to all the outcomes being measured. The information provided face validity and at least one of the WWC requirements for reliability. For instance, the Screener for Early Number Sense instrument will be used to assess Pre-K and K math outcomes and has test-retest reliability > .90, which is well above the WWC guidelines of .70. The applicant does have a plan to gather and assess acceptable implementation (pg. e48). The applicant will assess adherence, dosage/exposure, quality of delivery, and participant's responsiveness to the intervention. These are all important components of implementation fidelity. Furthermore, the applicant discussed measurable thresholds for acceptable implementation (pg. e48).

Weaknesses:

No weaknesses noted.

Reader's Score: 5

4. **(4) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

Strengths:

The applicant sufficiently discussed how the methods of evaluation would provide a periodic assessment of the project's progress (pg. e49). As an example, there will be periodic classroom visits by trained curriculum coaches (pg. e49). As another example, there will be a review of curriculum dosage data provided by the intervention teachers. Furthermore, implementation data will be collected on coaches, teachers, and tutors who are all part of the intervention. The input of this data will be electronic, ensuring the timely collection of implementation data (pg. e49). Based on the collection of this data, feedback will be provided to teachers, tutors, and administration in a timely manner closing the continuous improvement process loop.

Weaknesses:

A more thorough discussion in the evaluation section related to how continuous process improvement will be incorporated would have strengthened this sub-criterion. The ongoing process improvement plan requires closing the feedback loop. It was unclear how changes, if needed based on the data analysis, would be incorporated into the in-progress project. Furthermore, the key stakeholders and when meetings will be held to discuss the formative data were not clearly articulated in the evaluation. Finally, a cost-effectiveness formative evaluation component was also not provided and should be part of the formative evaluation.

Reader's Score: 3

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. Projects designed to promote educational equity and adequacy in resources and opportunity for underserved students in middle school or high school that examine the sources of inequity and inadequacy and implement responses, including rigorous, engaging, and well-rounded (e. g., that include music and the arts) approaches to learning that are inclusive with regard to race, ethnicity, culture, language, and disability status and prepare students for college, career, and civic life, including one or more of the following:

    (a)   Student-centered learning models that may leverage technology to address learner variability (e.g., universal design for learning (as defined in this notice), K–12 competency-based education (as defined in this notice), project-based learning, or hybrid/blended learning) and provide high-quality learning content, applications, or tools.
    (b)   Middle school courses or projects that prepare students to participate in advanced coursework in high school.
    (c)   Advanced courses and programs, including dual enrollment and early college programs.
    (d)   Project-based and experiential learning, including service and work-based learning.
    (e)   High-quality career and technical education courses, pathways, and industry-recognized credentials that are integrated into the curriculum.

    Strengths:

    N/A

    Weaknesses:

    N/A

Reader's Score: 0

Competitive Preference Priority - Competitive Preference Priority 2

1. 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:

    (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: 07/28/2022 02:55 PM

Technical Review Coversheet

Applicant: WestEd (S411B220027)
Reader #3: **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	0
Sub Total	15	0
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	35	0
Sub Total	35	0
Selection Criteria		
Quality of Project Design		
1. Project Design	15	0
Quality of the Project Evaluation		
1. Project Evaluation	35	31
Sub Total	50	31
Priority Questions		
Competitive Preference Priority		
Competitive Preference Priority 1		
1. Equity	3	0
Competitive Preference Priority 2		
1. COVID-19	3	0
Sub Total	6	0
Total	106	31

Technical Review Form

Panel #2 - EIR Mid-Phase - 3 - 1: 84.411B

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

Applicant: WestEd (S411B220027)

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. **(1) The national significance of the proposed project.**

    Strengths:

    n/a

    Weaknesses:

    n/a

    Reader's Score: 0

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

    Strengths:

    n/a

    Weaknesses:

    n/a

    Reader's Score: 0

3. **(3) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

    Strengths:

    n/a

    Weaknesses:

    n/a

Sub

Reader's Score: 0

Strategy to Scale - 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

   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.**

Sub

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

Sub

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: 31

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 impact study design is a cluster-level randomized controlled trial (RCT) with assignments made either within schools by classrooms or by schools if the schools only have one Pre-K class. Random assignment will be made after classroom rosters are set. The design will include three cohorts for understandably pragmatic reasons, including reducing costs and increasing implementation levels. Joiners after that point will correctly be left out of the analyses. This design is an appropriate choice to measure changes in student mathematical knowledge and identification as at-risk. The design can meet WWC standards without reservations. (e41)

   The evaluator also correctly identifies an intent-to-treat (ITT) analytic design. (e40)

   The research questions are clearly articulated. The evaluator correctly identifies the confirmatory research questions as those determining impact on student math outcomes and includes a question specific to Native American learners. Further, the evaluator identifies a number of important other exploratory research questions that consider implementation fidelity, mediators, and moderators. A number of questions clearly distinguish tiers of instruction, which is also aligned with programmer objectives. The questions build logically in alignment with programmer and evaluator goals. (e50-e51)

   The evaluators sufficiently identify the possibility of contamination and take appropriate steps—observing classroom instruction and continuously communicating the importance of the evaluation to treatment and control teachers—to minimize the chances of contamination. (e41-e42)

   The proposal clearly presents a sample for the RCT with reasonable assumptions about the number of classrooms and students who will be included in the study, as well as their status as at-risk or not at-risk. (e41) A sufficient power analysis and justification of the MDES by research question are provided. Further, the evaluator fittingly oversamples Native American learners to ensure the statistical power for test the intervention on this target racial group. (e51-e52)

   The design to assess outcomes via hierarchical linear modeling (HLM) is appropriate, as is the decision to assess impact with an intent-to-treat (ITT) analysis. A two-level HLM model is appropriate to account for cluster and student levels. (e52) The various other considerations in the data analysis plan are sound. (e52-e53)

   The learning loss research question and its analytic design are noted as commendable efforts to understand the influence of the pandemic on children. (e53)

   The logic model features key program components, mediators, and outcomes to be measured and analyzed. (e127-e128)

Sub

The evaluator provides sound rationale to minimize concern about teacher and student attrition, including teacher financial incentives, tracking students who relocate within the district, and administering tests to students who miss school on the days of assessment or transfer from the school. The evaluator also references prior studies' low attrition rates as demonstrated success. (e44)

The proposed goals, objectives, and measures are clearly articulated and aligned. The measures are specific. Minimum thresholds of implementation are made explicit. (e36-e37)

The Screener for Early Number Sense (SENS) allows for student early screening to identify students who are at risk of falling behind in mathematics. The tool can be used to inform moderator analyses, as well as assist with program implementation. (e39)

The mathematics outcomes—Child Math Assessment and SENS—are valid and reliable. The selection of these outcomes is appropriate given the age the students. (e46-e47).

Weaknesses:

There is no consideration of possible missing data and how the evaluator would respond to those cases.

Reader's Score: 19

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

   Strengths:

   The proposal identifies a number of possible ways the evaluation can be broadly useful, including expanding the research base, inform policy and practice, influence tier I instruction in other content areas, and show relationships between math cognition and student attention. The proposal also includes an oversample of Native American students, an understudied student demographic. (e25)

   The proposal notes WestEd's considerable reach nationally and a history of the programmers publishing in relevant academic journals. (e34)

   Distinct dissemination strategies to schools and other stakeholders (including the Bureau of Indian Education) are provided. (e34)

   The evaluators will present at research conferences. (e34)

   The evaluator identifies a number of specific "essential features" of implementation for this project. They note the importance of the programmer naming specific implementation thresholds as an important feature of this evaluation. (e44)

   Weaknesses:

   The evaluator does not target research journals, reports, or other traditional research outlets.

   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.**

Sub

Strengths:

The proposal includes fidelity certifications, implementation data collection and monitoring procedures, and fidelity support for teachers. (e27) WestEd coaches will provide tutoring and support with regular fidelity checks and feedback, as necessary. (e28) The programmer's long-running implementation of many programmatic elements has resulted in clear, measurable thresholds for acceptable levels of implementation. Further, the evaluator comprehensively details implementation fidelity, including the measures and their thresholds, as well as data collection procedures. (e48)

Key project components are discussed at length throughout the proposal, including Appendix G. Instruments are valid and reliable. The amount of data collection seems sufficient to answer the research questions posed. (e45-e47)

The evaluator identifies the Early Mathematics Classroom Observation (EMCO) instrument as a measure of teacher time devoted to math, which they correctly argue to be a mediating variable of student math knowledge. They also provide evidence that inter-rater reliability is high. (e45-e46)

Measures of moderators are discussed at length. These measures are valid and reliable. The measures are also nicely aligned with the proposal's objectives. The evaluator correctly provides more detail in this section because the identified moderators are important to determine differential impacts on students at-risk or not at-risk and minority student groups (e.g., Native American students). (e46)

Weaknesses:

No weaknesses are noted.

Reader's Score: 5

4. **(4) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

    Strengths:

    The WestEd team has experience implementing, coaching, and responding to practitioner needs. (e30) The evaluator expands on this potential in the periodic assessment of progress section by highlighting how tutoring and coaching will be ongoing and responsive to teacher and student needs. (e49)

    The programmer and evaluator will meet regularly, especially during data collection waves. (e32)

    Weaknesses:

    The programmer has a substantial presence in the evaluation through the WestEd role in implementation fidelity. The involvement of the programmer has been noted elsewhere. However, no real plan is offered by the applicant about how the evaluator's findings will inform the programmer's work in "real time." (e134)

    Despite a recognition of the importance of costs and how the study design can reduce costs for the project (e42), the evaluation fails to include an analysis of cost effectiveness that could be useful for the field as other programmers, school districts, and others consider this or similar programs. The lack of cost effectiveness analysis also potentially inhibits the programmer's (and evaluator's) ability to make real-time adjustments to save and perhaps repurpose funds.

    Reader's Score: 3

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. Projects designed to promote educational equity and adequacy in resources and opportunity for underserved students in middle school or high school that examine the sources of inequity and inadequacy and implement responses, including rigorous, engaging, and well-rounded (e. g., that include music and the arts) approaches to learning that are inclusive with regard to race, ethnicity, culture, language, and disability status and prepare students for college, career, and civic life, including one or more of the following:

    (a)   Student-centered learning models that may leverage technology to address learner variability (e.g., universal design for learning (as defined in this notice), K–12 competency-based education (as defined in this notice), project-based learning, or hybrid/blended learning) and provide high-quality learning content, applications, or tools.
    (b)   Middle school courses or projects that prepare students to participate in advanced coursework in high school.
    (c)   Advanced courses and programs, including dual enrollment and early college programs.
    (d)   Project-based and experiential learning, including service and work-based learning.
    (e)   High-quality career and technical education courses, pathways, and industry-recognized credentials that are integrated into the curriculum.

    Strengths:

    n/a

    Weaknesses:

    n/a

Reader's Score: 0

Competitive Preference Priority - Competitive Preference Priority 2

1. 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:

    (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: 07/28/2022 03:47 PM