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

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411A210002)
Reader #1: **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	15
Sub Total	15	15
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	20	18
Sub Total	20	18
Selection Criteria		
Quality of Project Design		
1. Project Design	20	17
Adequacy of Resources		
1. Quality of the Management	20	17
Quality of the Project Evaluation		
1. Project Evaluation	25	
Sub Total	65	34
Total	100	67

Technical Review Form

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

Applicant: Texas A&M Research Foundation (S411A210002)

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

   Strengths:

   The applicant offers strong evidence of the significance of the proposed project. The proposed project aims to address the lack of proficiency in literacy (reading skills) in students with a special emphasis on underserved groups and economically distressed communities (E18). The applicant supports their assertion of national significance with recent and relevant research that indicates that lack of proficiency in literacy (reading skills) or illiteracy as a national health crisis (E19). This same research emphasized the long-term negative impacts that result from inequities in reading competencies in early grades. The applicant also seeks to address the challenges faced by the target population in their return/transition back to the classroom from virtual instruction that was made necessary by the pandemic. The proposed project seeks to address the low level of reading proficiency in the target population by using the web-based intelligent tutoring system for the structure strategy (ITSS), available in English and Spanish (E16). The applicant also plans to implement ITSS with a web-based massive open online virtual learning and a multidimensional, "360-degree" support system (MOOV 360). The selection of this system was guided by its proven effectiveness as it was designed, developed, and tested through a Supporting Effective Educator Development (SEED) grant (E16).

   Weaknesses:

   None noted.

   Reader's Score:

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

   Strengths:

   The proposed project was a high potential of increasing knowledge or understanding of the educational problems associated with improving the reading skills of high-need minority students. The applicant seeks to gather information on how the strategic use of technology (ITSS & MOOV) can improve literacy instruction and result in increased student reading comprehension at a reasonable cost (E20). The applicant has identified five (5) distinct challenges the proposed project will encounter and aims to utilize the data collected from multiple geographic regions and underrepresented communities to inform educators, policymakers, and other stakeholders (E21).

Sub

Weaknesses:

None noted.

Reader's Score:

Strategy to Scale - Strategy to Scale

1. The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:

Reader's Score: 18

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 has developed strategies to promote scaling up of the proposed project and these strategies are based upon information and data collected from previous grant-funded projects (E21) The barriers listed included: 1) high costs of delivering PD and the need for easily accessible training resources for teachers, 2) contradictions presented in the curricula used by schools, and 3) The need for resources for Spanish speaking ELs and Professional Development in Spanish (E22). To address the issue of these identified barriers, the applicant references other successful projects of this type such as the SEED-MOV project (E22).

Weaknesses:

The applicant failed to include information or data collected during the past implementation of similar projects that led to the identification of all of the barriers that would prevent scaling up the proposed project.

Reader's Score:

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

Strengths:

The applicant has identified several strategies that they will use to effectively disseminate project information including leveraging their partnership with WestEd (E24). They will collaboratively disseminate information via Social Media platforms in addition to hosting webinars, newsletters, and presenting at local and national conferences and meetings of educators and policymakers (E25). To maximize reach and attendance, the applicant will also propose symposia and panel presentations that include key stakeholders and practitioners from the KATE project (E25). These and other strategies listed will offer multiple opportunities for them to share their findings and lessons learned with supporters and other partners, stakeholders including practitioners and policymakers who focus on Pre-K–12 education. They also state that they will continue to communicate with an established regional and national network of similar projects (E26). This will increase the likelihood that their research findings and best practices will support additional development and possible replication.

Sub

Weaknesses:

None noted.

Reader's Score:

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: 17

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 has developed a very detailed conceptual framework (Logic Model) that clearly represents the recent and relevant research that supports the proposed project (E28). The applicant also explains how the conceptual framework is implemented through web-based ITSS lessons and a critical teacher-delivered component of KATE. For example; the Logic Model illustrates the number of student lessons throughout 30 weeks of the school year; the number of hours allocated (24) for teacher professional development and that Spanish linguistic assistance will be offered on-demand at the word, sentence, and passage level (E28). The quality of the framework is enhanced by its division into Post-test and Delayed Post-test outcomes that are based on the project participants (inputs) and activities (E29). This highlights their plans to utilize the scale-up to test whether these effects are sustained for fourth-grade students after six months through the use of this delayed posttest (E29).

   Weaknesses:

   None noted

   Reader's Score:

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 identifies three specific goals (E29) and Table 1 includes a number of activities and outcomes (E40).

   Weaknesses:

   The applicant fails to clearly indicate which objectives are aligned to each of the identified goals. There is also an absence of aligned outcomes and this does not allow for a clear determination of whether the goals and objectives can be accomplished. Table 1 that is referenced does not contain the detailed goals and objectives nor are they present in any other part of the application.

   Reader's Score:

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 has designed a project that will successfully address the needs of the population, based upon the statistically significant and positive effects this type of project has shown in ITSS classrooms over the control groups in previous studies (E29). The design seeks to address the challenges of literacy instruction for 4th and 5th grades with a special emphasis on students whose native language is Spanish (E29). The teacher professional development component which is web-based and includes easily accessible technological and curricular supports will improve instruction and student reading comprehension.

Weaknesses:

None noted.

Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score: 17

Sub

1. **(1) 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 has identified several qualified personnel who have extensive experience in the design and implementation of ITSS-based projects as well as teacher professional development in the areas of reading instruction (E30-31). The management experience of these personnel significantly increases the likelihood of effective implementation of the project in the scaling-up process. The applicant offers sufficient information on the level of support and resources they will supply to implement the proposed project. These include; multiple meeting rooms, three post-doctoral researchers, a curriculum writer, an in-house hotel with meeting spaces, a technology infrastructure, and research support services (E31).

Weaknesses:

None noted.

Reader's Score:

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 illustrates that they will have an effective organizational structure (E32), which lists the duties and responsibilities of some project personnel. The structure divides the project into teams that will implement and evaluate the proposed project (E32). The applicant also includes a timeline of activities in Table 1 (E40) which are

linked to project implementation and evaluation.

Weaknesses:

The applicant fails to clearly link all of the activities in Table 1 with the project personnel. There is an absence of project objectives and that does not allow for a determination of whether the project can achieve its stated goals.

Reader's Score:

3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

Strengths:

The applicant has developed an extensive and well-designed budget that outlines all of the project costs, which are reasonable (E157). For example, personnel salaries and other compensation is based upon established fiscal policy at the host institution (E158) as are other expenses.

Weaknesses:

None noted.

Reader's Score:

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:

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.**

Strengths:

Sub

    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:

Status:	Submitted
Last Updated:	08/04/2021 08:37 PM

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411A210002)
Reader #2:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	
Sub Total	15	
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	20	
Sub Total	20	
Selection Criteria		
Quality of Project Design		
1. Project Design	20	
Adequacy of Resources		
1. Quality of the Management	20	
Quality of the Project Evaluation		
1. Project Evaluation	25	19
Sub Total	65	19
Total	100	19

Technical Review Form

Panel #1 - EIR Expansion - 1: 84.411A

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

Applicant: Texas A&M Research Foundation (S411A210002)

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:

  Sub

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

  Strengths:

  Weaknesses:

  Reader's Score:

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

  Strengths:

  Weaknesses:

  Reader's Score:

Strategy to Scale - Strategy to Scale

1. **The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:**

Reader's Score:

> **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:**
>
>   **Weaknesses:**
>
>   **Reader's Score:**
>
> 2. **(2) The mechanisms that applicant will use to broadly disseminate information on its project so as to support further development or replication.**
>
>   **Strengths:**
>
>   **Weaknesses:**
>
>   **Reader's Score:**

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:

> **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:**
>
>   **Weaknesses:**
>
>   **Reader's Score:**
>
> 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:

    Weaknesses:

    Reader's Score:

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:

    Weaknesses:

    Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score:

    Sub

1. **(1) 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:

    Weaknesses:

    Reader's Score:

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:

Sub

   Weaknesses:

   Reader's Score:

3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

   Strengths:

   Weaknesses:

   Reader's Score:

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: 19

   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 uses a multi-site cluster randomized controlled trial with school level assignment within district blocks (e38-39), and this design is eligible to meet What Works Clearinghouse (WWC) standards without reservations. Several strategies will be implemented to minimize attrition. Each cohort will be randomized in June to allow for summer professional development for teachers (e40), and then the cohort will be studied within the same school year. The first cohort of schools will be randomized and studied in year two and the second cohort will be randomized and studied in year three (e39). The project plans to collect and closely monitor student rosters in case they are needed due to high attrition (e40). Schools, teachers, and coaches will all receive stipends for participating (e11). Strong district letters of support demonstrate the commitment to the project (e40). The measures chosen for each research question are appropriate and aligned to the domain of interest and show evidence of reliability (e45). Pre and post measures will be collected for all the student measures and the teacher knowledge measure, which will allow for demonstrating baseline equivalence if needed (42-45). Baseline observations will not be conducted but it is likely the teacher knowledge measure could be used to determine baseline equivalence if needed. Missing data will be handled with listwise deletion if less than five percent and missing completely at random, or with multiple imputation following WWC standards (e49). Student joiners, or those who enroll six weeks after the school year starts, will be excluded from baseline and analytic samples (e40) which will remove any potential bias. A comprehensive discussion of the power analysis is presented and includes information on the key assumptions and impact of different levels of attrition (e40, e148-149). Hierarchical linear modeling (HLM) will be used to estimate treatment effects for the primary impact questions (e49). This is an appropriate approach given the design and need to account for the effect of clustering. Models will test the need for four levels and reduce the complexity if four levels are not needed (e49).

Sub

Weaknesses:

The business-as-usual comparison condition (e50) is not fully explained or contrasted with the treatment condition so that it is reasonable to expect treatment effects due to differences in conditions. This application might be strengthened by describing the comparison condition since this study will be implemented in multiple states and the business-as-usual condition may vary greatly in each state. The plan does not include a discussion of how new teachers joining each school will be handled in the analyses, especially those who miss the summer professional development. It is not clear how district blocks will be formed and randomized. The student-level HLM models include students nested in classrooms, classrooms nested in schools, and schools nested within sites (e49). In this case, sites appear to be blocks of similar schools, but this is not fully explained. The HLM models for the teacher outcomes are not specified. This application might be strengthened by describing the HLM models that will be used to determine the effects on teacher knowledge and teacher instructional practice.

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.**

Strengths:

Surveys, observations, and usage data will be collected and then evaluated to triangulate the findings so that guidance about effective strategies is data-based (e47). For instance, teacher questions during training sessions will be documented and used to refine materials. Similarly, coaching logs will serve as a vehicle for collecting feedback from coaches on the barriers and facilitators to implementation (e46). Data collection will come from very diverse locations with high percentages of high-need students (e114). This diversity has the potential to provide a rich sample for understanding the effectiveness of the intervention in multiple settings. The approach includes both qualitative data (observations and surveys) as well as quantitative data (moderation analyses). For example, one of the research questions will examine the effect of the intervention on diverse student subgroups, including Spanish speakers, students with disabilities, and non-White students (e39).

Weaknesses:

This application might be strengthened by providing more information on the planned composition of the study sample to ensure that a diverse sample of schools is nominated and selected from the diverse sites.

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:

The evaluation is aligned to the key project components and short-term and long-term outcomes specified in the project's logic model (e127). Mediation models will be examined using structural equation modeling after estimating the significance of the cognitive and affective outcome measures included in the models (e36). The research questions are clear and form a solid basis for the evaluation (e38-39).

Weaknesses:

Measurable thresholds for acceptable implementation are not provided in the evaluation plan. Details are provided on the steps that will be used after an award to identify quantifiable implementation indicators for the key activities in the logic model (e46). As an illustration, there is an example regarding the expected threshold for various levels of teacher training, with the level of fidelity depending on the percentage of components received (e46). The thresholds and their appropriateness could not be evaluated due to their omission.

Sub

Reader's Score:

Status: Submitted
Last Updated: 08/04/2021 01:33 PM

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411A210002)
Reader #3:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	
Sub Total	15	
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	20	
Sub Total	20	
Selection Criteria		
Quality of Project Design		
1. Project Design	20	
Adequacy of Resources		
1. Quality of the Management	20	
Quality of the Project Evaluation		
1. Project Evaluation	25	19
Sub Total	65	19
Total	100	19

Technical Review Form

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

Applicant: Texas A&M Research Foundation (S411A210002)

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:

   Sub

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

      Strengths:

      Weaknesses:

      Reader's Score:

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

      Strengths:

      Weaknesses:

      Reader's Score:

Strategy to Scale - Strategy to Scale

1. **The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:**

Reader's Score:

    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:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

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:

    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:

    Weaknesses:

    Reader's Score:

  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:

    Weaknesses:

    Reader's Score:

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:

    Weaknesses:

    Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score:

    Sub

1. **(1) 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:

    Weaknesses:

    Reader's Score:

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:

Sub

    Weaknesses:

    Reader's Score:

3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

    Strengths:

    Weaknesses:

    Reader's Score:

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: **19**

    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 external evaluation team is highly experienced in implementing RCT (randomized controlled trial) studies and has closely collaborated with WWC (What Works Clearinghouse) on multiple studies in the past (e38). This experience should serve as an asset for the applicant in assuring the evaluation plan is implemented as designed and has the potential to produce statistically valid findings.

    The research design proposed by the applicant includes a cluster sampling of schools within districts to treatment conditions (e39) and the utilization of HLM (hierarchical linear modeling) analysis to examine main and interactive effects on outcomes. These analyses have the potential to produce results that meet WWC standards.

    Weaknesses:

    The applicant proposes (e41) data collection for students using five different instruments (e42-e43). These instruments are to be completed by students in the fall of year 2, in the spring of year 2, and the fall of year 3. It is not identified in the applicant's proposal whether these measures are in lieu of or in addition to mandated state ELA (English Language Arts) assessments. Given the intention of assessing students using the proposed instrumentation 14-15 times in the space of twelve months, there is a risk of both test-retest effects and testing fatigue (especially in the condition that state/local ELA assessment are also required that could threaten the validity of outcome data.

Sub

In relation to teacher outcome data, the teacher knowledge assessment (e43-e44) is described as being administered at the time of PD (professional development) training and in the spring of the school year. However, in the data collection table (e41) the knowledge assessment is shown as only being collected in the spring. Additionally, the classroom observation data is discussed as only being assessed post-implementation. This discrepancy regarding the administration of the knowledge assessment and the post-treatment only condition for classroom observations limits the ability to interpret the impact of implementation on teacher knowledge and classroom behavior and threaten the validity of the research findings.

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.**

   Strengths:

   The evaluation will adequately provide guidance about effective strategies suitable for replication or testing. For example, the dissemination plan for project findings presented by the applicant (e24-e27) includes dissemination through social media directed at education professionals, textbook publication, publication in professional journals, and presentations at national professional conferences. The information to be shared includes project design, evaluation methods, and research findings.

   Weaknesses:

   The evaluation will adequately provide guidance about effective strategies suitable for replication or testing. For example, the dissemination plan for project findings presented by the applicant (e24-e27) includes dissemination through social media directed at education professionals, textbook publication, publication in professional journals, and presentations at national professional conferences. The information to be shared includes project design, evaluation methods, and research findings.

   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:

   Standards for assessing effective levels of project implementation are presented in the discussion on pages e45-46. The implementation measures described are reasonable and should provide information that can explain differences in outcomes based on degrees of project fidelity.

   The research questions presented by the applicant are informed by valid/reliable instrumentation (e38-39, Table E. 2., e46) and are aligned with the logic model presented. These questions are likely to successfully provide a vehicle for understanding and interpreting project impacts.

   Weaknesses:

   The applicant's logic model (e28) does not show mediating/moderating variables between program outputs and outcomes. Anchoring mediators/moderators to the logic model both assist in the interpretation of outcome findings related to project activities and help insure intervening variables are included in the effectiveness analysis.

Sub

One possibly significant moderator not included in the applicant's proposal is the payment ($500) of participating teachers as data collectors (e159, e11). This payment has the possibility of introducing bias into the data collected via the respondent wishing to "please" their employer (experimenter effect, Hawthorne effect) by rating project components/implementation more positively. This can lead to the exaggeration of program impacts in interpreting these data.

Reader's Score:

Status: Submitted
Last Updated: 08/04/2021 01:12 PM

Status: Submitted
Last Updated: 08/04/2021 12:49 PM

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411A210002)
Reader #4: **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	15
Sub Total	15	15
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	20	19
Sub Total	20	19
Selection Criteria		
Quality of Project Design		
1. Project Design	20	17
Adequacy of Resources		
1. Quality of the Management	20	17
Quality of the Project Evaluation		
1. Project Evaluation	25	
Sub Total	65	34
Total	100	68

Technical Review Form

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

Applicant: Texas A&M Research Foundation (S411A210002)

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

Strengths:

The applicant includes evidence that literacy, the focus of the intervention, is a concern on a national scale using both national (e.g., NAEP (National Assessment of Educational Progress) and state (e.g., Texas Assessments) proficiency data (p. e18). The participants provide support for the need for literacy based on articles highlighting the impact of the pandemic on proficiency (p. e19). The inclusion of the What Works Clearinghouse referencing of the impact of the proposed intervention on literacy provides clear support for the potential impact of the project (p. e19). The fact that the proposed project is driven by the successful implementation of a previous grant provides logical direction for the project and support for scaling of the activities (p. e19).

Weaknesses:

None noted

     Reader's Score:

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

Strengths:

The proposed project includes specific approaches to addressing literacy and the successful implementation of the activities will be likely to provide useful data and information for future replication and study (p. e20). For example, the proposal will implement several different methods of intervention such as modeling for teachers, adaptive lessons for students and direct feedback to students and teachers (p. e20), which will impact teacher effectiveness and student literacy. The fact that the lessons are in both Spanish and English will increase the potential for positive impact on students (p. e20). There is a strategic use of technology that builds upon the opportunities provided from the pandemic (p. e20), which will provide more robust opportunities for later dissemination.

Weaknesses:

None noted

Reader's Score:

Strategy to Scale - Strategy to Scale

1. **The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:**

Reader's Score: **19**

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 strategies to address barriers to scale presented in the application are well aligned and are based on research and previous experience (p. e21). For example, the inclusion of Spanish materials will allow for the project to scale to the Spanish speaking population (p. e24). In addition, the fact that the intervention is web-based allows for a greater ability to utilize resources in a cost-effective and consistent manner which will allow for more teachers to be trained (p. e22). The implementation of these strategies to address the identified barriers will impact the ability of the project to be brought to the level of scale proposed.

   Weaknesses:

   The project does not specify the data or justification for all of the barriers identified in the application that would be addressed in the project (p. e22). For example, the use of the web-based system is proposed as a strategy but it is unclear how this was identified beyond an anecdotal observation of greater use during the pandemic (p. e23).

   Reader's Score:

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

   Strengths:

   The applicant includes a clear and thorough plan for the dissemination of their findings from the study (p. e24). For example, the use of pre-established networks and webinar meetings to inform all levels of educators about the potential impact and to provide direction on implementation is an efficient way to share results (p. e26). The use of a variety of methods will ensure maximum exposure and potential for replication (p. e26). For example, the use of social media, presentations, Spanish translations and the development of a textbook are all disparate means of sharing results.

   Weaknesses:

   None noted

   Reader's Score:

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: **17**

    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 intervention and activities proposed in the project are clearly aligned to a framework regarding instructional approach and an implementation model (p. e27). The interventional approach aligns to research-based literacy strategies that guide the process and inform activities (p. e27). The logic model (p. e28) provides a high-quality structure to the implementation of the project and aligns teacher activities to student activities and then to proposed outcomes.

    Weaknesses:

    None noted

    Reader's Score:

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 proposal includes 3 broad goals which align well to the proposed intervention and barriers identified in the application (p. e29).

    Weaknesses:

    The application points the reader to Table 1 (p. e29) to describe the objectives and proposed outcomes of the project, but the only Table 1 is in the evaluation section (p. e41) and is the plan for the evaluation not a description of the objectives and outcomes. The project lacks clearly specific and measurable objectives and outcomes.

    Reader's Score:

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 presents a strong design that has been tested and developed over many years to have an impact on the population targeted in this project (p. e30). The multiple Randomized Control trials conducted with previous projects to identify areas of refinement have tailored the intervention to have a significant impact on participants, both teachers and students (p. e30). The use of technology and the web-based design for the professional development and curriculum supports will allow for more effective implementation and scalability (p. e29)

    Weaknesses:

    None noted

    Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score: 17

Sub

1. **(1) 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 university resources and research organizations associated with the project have the required expertise in reading instruction and background to successfully implement the planned activities (p. e31). For example, the project will utilize prominent researchers such as Kausalai Wijekumar (p. e65) who have been involved in the development of the technology associated with the intervention from its inception, which will give perspective to the project. Also, the university and research organizations have staff and facilities that would support the activities outlined in the project (p. e31) and allow for successful implementation.

   Weaknesses:

   None noted

   Reader's Score:

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 project includes a clear outline of the responsibilities of the various members of the team to address project areas (Figure 2, p. e31).

   Weaknesses:

   The project lacks timelines and milestones for the project activities. For example, Professional Development (PD) will be delivered and participants will be coached but it is unclear when these activities will happen and how their implementation will be monitored (p. e31). The project includes summaries of what each team member has accomplished and a sentence about what they will do in the project but does not outline the specific work, when it will happen and how it will be evaluated (p. e33). For example, Dr. Hope K. Gerde will provide leadership for coaching and help with dissemination but there is no detail on when those activities will happen (p. e33).

   Reader's Score:

3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

   Strengths:

   The budgeted costs of the proposed program are clearly outlined in the budget narrative (p. e151). The assumptions included into the budget are reasonable and would serve to meet the requirements of the planned intervention. For example, the 3% salary increase annually is reasonable for 5 year planning purposes (p. e153). The salaries were based on assumptions from the hosting institution (p. e154). The budget addresses all of the

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activities outlined in the project and will provide sufficient fiscal resources to support implementation (p. e151).

Weaknesses:

None noted

Reader's Score:

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:

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:

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:

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

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   Weaknesses:

   NA

   Reader's Score:

Status: Submitted

Last Updated: 08/04/2021 12:49 PM