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

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411B200055)
Reader #1: **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	10	10
Quality of Project Design		
1. Quality of Project Design	25	22
Sub Total	35	32
Scaling		
Strategy to Scale		
1. Scaling	20	13
Sub Total	20	13
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	25	22
Sub Total	25	22
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	20	16
Sub Total	20	16
Total	100	83

Technical Review Form

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

Applicant: Texas A&M Research Foundation (S411B200055)

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 factor:

Reader's Score: **10**

    Sub

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

    Strengths:

    •   The applicant provides evidence of success with two previously funded projects and has proposed a promising technology-based project to focus on improving online science instruction for rural, high-needs elementary students. The project will use "literacy-infused" science to help students develop skills in reading and writing while deepening their understanding of science content. In light of educational changes to online learning that were imposed by the Covid 19 pandemic, it is important for research to be conducted on the best ways to help schools and teachers improve learning for their students through online learning methodology. P. 1-6

    Weaknesses:

    •   None noted.

    Reader's Score: **10**

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: **22**

    Sub

  1. **(1) 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 provides adequate evidence that the goals, objectives are clearly specified and measurable. P. 9-13 and Logic Model Appendix I

Weaknesses:

• None noted.

Reader's Score: 10

2. **(2) 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 proposed project adequately addresses the majority of the identified needs of the target population through the use of technology, paid internet connections and online teacher professional development. For example, the applicant will provide technology equipment and wireless access for families who do not have access to technology in the home. The applicant will provide curriculum units and mentoring for teachers who do not have an adequate background in science concepts. P. 13

Weaknesses:

• The applicant proposes having university science majors provide mentoring for teachers and students. While these individuals may be able to mentor students in science content, it is unclear that they have the skills to mentor teachers in instructional techniques. This strategy also does not build local capacity to sustain training efforts after the ending of the project.
• The applicant has provided support for parents as an element of the program but does not address how this strategy meets the needs of students and their parents participating in the program.

Reader's Score: 3

3. **(3) The extent to which the proposed activities constitute a coherent, sustained program of research and development in the field, including, as appropriate, a substantial addition to an ongoing line of inquiry.**

Strengths:

• The proposed activities in the project proposal address concerns and barriers identified in both earlier projects conducted by the applicant. Some examples of barriers that will be addressed are speeding up the approval process, using couriers to get consent forms back in a reasonable time-frame and creating training videos for teachers to help them become better informed about how to use the program. The applicant's plan appears likely to provide a coherent, sustained program of research and development and a substantial addition to an ongoing line of inquiry. The applicant cites lessons learned from their IES RCT longitudinal study in grades K-3 and an I3 study with grades 5-8 from 2016 which will provide Victory Summer Institutes and Virtual Professional Learning Communities for teacher collaboration. P. 13-16

Weaknesses:

• It is unclear how the virtual classroom observation using face-to-face and online formats will provide schools and districts the ability to build their own capacity to provide targeted feedback to teachers to implement PD training strategies with fidelity after the project ends. P. 14

Sub

    Reader's Score: **4**

4. **(4) The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

    Strengths:

    •   The applicant's proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity through the addition of online training tools, virtual observations and virtual meetings to reduce travel time and expense. It will use state assessments or online assessments as well as online writing journals to reduce paper costs for the project. The project will also leverage tools, online resources and proven teams who have already worked together on previous projects to reduce time limitations, fidelity and variability in the project. P. 14-15

    Weaknesses:

    •   None noted.

    Reader's Score: **5**

Scaling - 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: **13**

    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 adequately described specific strategies to address barriers that have prevented the applicant, in the past, from reaching the level of scale that is proposed in the application. For example, to address barriers of getting consent forms from 60 campuses across the state of Texas, the applicant will develop a vendor relationship with a courier service to get needed paperwork and develop virtual on-boarding and training sessions for teachers participating in the project. P. 16-17

    Weaknesses:

    •   None noted.

    Reader's Score: **10**

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

Sub

Strengths:

• The applicant has provided some methods of dissemination of project results including a web-based depository of all online presentations, professional papers and journal articles, and presentations. P. 11-12 and P. 18

Weaknesses:

• The application lacks an analysis of the ways that the applicant can support further development or replication of the project following the ending of grant funding.

Reader's Score: 3

Resources and Quality of Management Plan - Resources and Quality of Management Plan

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: 22

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 provides evidence that the proposed project has qualified personnel who have previous experience managing and bringing to completion previous grant projects. They also provide evidence of funding support and tools that they can leverage to bring this project to scale. P. 18-20

Weaknesses:

• None noted.

Reader's Score: 10

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

Strengths:

• Project costs are reasonable in relation to the objectives, design, and potential significance of the proposed project. P. 20-21

Weaknesses:

• None noted.

Reader's Score: 5

3. **(3) The potential for continued support of the project after Federal funding ends,**

including, as appropriate, the demonstrated commitment of appropriate entities to such support.

Strengths:

•   The applicant provides some description of the continued support that they will provide after federal funding ends. P. 21 and 7

Weaknesses:

•   The applicant states (P. 21), "The curriculum for this project overall will be made available; however, the training for schools will be provided via the Center for a fee for service." This means that rural schools who often lack financial resources may not be able to adopt this innovation after the conclusion of project funding. The applicant further states that the observation platform developed with federal funds is also likely to be commercialized at the conclusion of the project funding. This would place an additional burden on rural school districts who would like to continue their participation in the program.

Reader's Score: 2

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

Weaknesses:

•   None noted.

Reader's Score: 5

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: 16

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 this notice).**

Strengths:

•   The methods of evaluation are adequate, if well implemented, to 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. P. 23-29

Sub

Weaknesses:

•   The research hypothesis is unclear in the design of the study so it is unclear if the end result of the study will meet the criteria required by the What Works Clearinghouse standards without reservations.

Reader's Score: **6**

2. **(2) 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 plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation. P. 29-30

Weaknesses:

•   None noted.

Reader's Score: **5**

3. **(3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.**

Strengths:

•   The methods of evaluation are adequate to provide valid and reliable performance data on relevant outcomes. P. 29-30

Weaknesses:

•   None noted.

Reader's Score: **5**

Status: Submitted
Last Updated: 08/03/2020 07:21 PM

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411B200055)
Reader #2: **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		10	10
Quality of Project Design			
1. Quality of Project Design		25	21
	Sub Total	35	31
Scaling			
Strategy to Scale			
1. Scaling		20	15
	Sub Total	20	15
Resources and Quality of Management Plan			
Resources and Quality of Management Plan			
1. Resources and Management		25	24
	Sub Total	25	24
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		20	18
	Sub Total	20	18
	Total	100	88

Technical Review Form

Panel #5 - FY20 EIR MId Phase - 5: 84.411B

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

Applicant: Texas A&M Research Foundation (S411B200055)

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 factor:**

Reader's Score: 10

   Sub

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

   Strengths:

   The proposed project provides a strong justification and rationale for the research being conducted and how it will benefit the educational community (p. 22). The lack of scientific studies and work around virtual science curriculum with rural schools is convincingly highlighted and how the activities associated with this project would address those needs (p. 24).

   Weaknesses:

   None noted

   Reader's Score: 10

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: 21

   Sub

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

   Strengths:

   The goals, objectives and measures are clearly outlined and include measurable objectives with appropriate tools associated with each (p. 27). The project includes both a strong implementation and impact focus, using data to guide the project and to produce the evidence for future replication (p. 29).

Sub

> **Weaknesses:**
>
> None noted

    Reader's Score: **10**

2. **(2) 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 structured approach outlined in the project provides an effective means to address the needs of identified elementary teachers through training and online coaching (p. 29) in science pedagogy and instruction. The coaching method being tested would provide real time support needed by many teachers as they work through new curriculum (p. 28).
>
> **Weaknesses:**
>
> The project notes that it will meet the needs of rural families for an internet connection, but it is unclear how this will happen (p. 31). The budget narrative includes line item for MiFi purchase and a 2-month subscription, but it is unclear how these will be provided or how 20% of participants were estimated as needing these devices (p. 62). It is unclear if the materials provided to families will be in the families' native language, especially those families with English Learner students (p. 31). The proposal provides a rationale regarding a gap in the literature for virtual science education in the elementary classroom, but it is not clear if a need was established identifying rural Texas students and how this program would meet their needs (p. 22).

    Reader's Score: **3**

3. **(3) The extent to which the proposed activities constitute a coherent, sustained program of research and development in the field, including, as appropriate, a substantial addition to an ongoing line of inquiry.**

> **Strengths:**
>
> The application includes a clear justification of the connection between previous research and the planned project (p. 32).
>
> **Weaknesses:**
>
> None noted

    Reader's Score: **5**

4. **(4) The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

> **Strengths:**
>
> The virtual components proposed in the application will increase efficiency of teacher training and feedback, as well as some instructional delivery (p. 33).
>
> **Weaknesses:**
>
> The application proposes many data collection tools that require technology and training to implement, which could cause confusion and add to the work of teachers using the process. For example, the virtual observation requires an online reflection tool, a GoToMeeting login and a virtual headphone that will be used to provide feedback to teachers, which could be overwhelming to teachers and may not be supported in a rural area (p. 28).

Sub

> **Reader's Score:** 3

Scaling - 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: 15

> **Sub**

> 1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**
>
> **Strengths:**
>
> The proposal includes a comprehensive list of barriers that may impact the project with some potential solutions to the issues (p. 35).
>
> **Weaknesses:**
>
> It is unclear how the rural schools involved with the project will have the technological resources to continue the intervention after funding has ended (p. 34). For example, many districts will not have the science experts to provide virtual coaching or the technology to do that. Many of the barriers identified in the proposal are not sufficiently address by the proposed solutions (p. 35). For example, the proposal notes that data pullers will be organized through districts but with 60 participating rural districts it is reasonable to expect that many will not have this type of capacity or staff (p. 35).
>
> > **Reader's Score:** 5
>
> 2. **(2) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication.**
>
> **Strengths:**
>
> The proposal includes a clear dissemination plan based on previous experience with these types of funded programs (p. 36).
>
> **Weaknesses:**
>
> None noted
>
> > **Reader's Score:** 10

Resources and Quality of Management Plan - Resources and Quality of Management Plan

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: **24**

   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 proposal includes staff and resources that would adequately meet the needs of the proposed program (p. 36). The experience of the PI's and evaluator will serve to guide the implementation of the funded program (p. 37). The numerous letters of support provided by school districts across Texas are a clear indicator of the importance of the proposed project and need identified by districts (p. Appendix I). The inclusion of the advisory board in the management of the project provides strong oversight and coordination among partners (p. 39).

   Weaknesses:

   None noted

   Reader's Score: **10**

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

   Strengths:

   The budget and budget narrative outline costs for associated activities that are appropriate and justified (p. 59). The budget narrative is comprehensive and includes the clear links to all proposed staff and partners (p. 60).

   Weaknesses:

   None noted

   Reader's Score: **5**

3. **(3) The potential for continued support of the project after Federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.**

   Strengths:

   The proposal includes many ideas and approaches that may provide future funding for activities associated with this project (p. 39). The applicant has considerable experience with programs of this scope and providing continued funding after grant funding has been exhausted (p. 37).

   Weaknesses:

   The proposal lacks detail on how the project activities will remain in the schools and districts identified in the intervention. For example, the MiFis identified in the budget have only a 2-month subscription and it is not clear how the district will continue to use this service without continued grant funding (p. 62).

   Reader's Score: **4**

4. **(4) 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 specificity of the goals, objectives and strategies outlined in Section B (p. 27) coupled with the Milestone Chart (Table 2, p. 40) provides sufficient detail and information for the program staff to monitor project activities.

Weaknesses:

None noted

Reader's Score: 5

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: 18

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 this notice).**

Strengths:

The proposed evaluation includes clear analysis plan to address each research question associated with the goals and objectives and is designed to meet the What Works Clearinghouse without reservations (p. 44). The evaluation includes multiple forms of analysis, both qualitative and quantitative, that appropriately address the various research questions posed in the project (p. 45).

Weaknesses:

The method used to control for attrition only addresses movement between schools in the region and not outside the treatment area (p. 43).

Reader's Score: 9

2. **(2) 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 clearly addresses each element of the project with research questions, data collection and analysis (p. 45). The proposal includes sufficient information on the analysis of mediating variables (p. 44) and addresses thresholds for implementation (p. 43).

Weaknesses:

There are some implementation measures that do not include appropriate thresholds. For example, the proposal asks the extent to which teachers implement the innovations with fidelity, but there is not an associated threshold with the associated measure (p. 45).

Sub

    Reader's Score: **4**

3. **(3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.**

    Strengths:

    The assessment tools and measures used in the proposed project will provide reliable and valid data based on the psychometrics reported for each (p. 47).

    Weaknesses:

    None noted

    Reader's Score: **5**

Status: Submitted
Last Updated: 08/03/2020 01:24 PM

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411B200055)
Reader #3:   **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		10	9
Quality of Project Design			
1. Quality of Project Design		25	24
	Sub Total	35	33
Scaling			
Strategy to Scale			
1. Scaling		20	16
	Sub Total	20	16
Resources and Quality of Management Plan			
Resources and Quality of Management Plan			
1. Resources and Management		25	21
	Sub Total	25	21
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		20	14
	Sub Total	20	14
	Total	100	84

Technical Review Form

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

Applicant: Texas A&M Research Foundation (S411B200055)

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 factor:

Reader's Score: 9

Sub

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

Strengths:

The applicant makes a strong and convincing argument that there is a need for research about the impact of virtual learning on student science achievement in elementary grades within rural areas (Pp. 3-6). They also weave in multiple key components into an integrated solution, including virtual observations, family engagement, mentorship, literacy-based science instruction, science notebooks, and professional development for teachers (Pg. 7). Parts of this intervention have been tested previously, which indicates that the applicant has moderately met Priority 1 (Pg. 3). They have clearly conducted a thorough scan of the WWC and other sources to understand the landscape of research in this area and justified the need for a rigorous study that fills this need (Pg. 4). The project would add scientific value by validating a virtual observation method that uses Artificial Intelligence. Taken together, the concept of this work has the potential to add to the understanding of virtual learning, the integration of a full virtual science curriculum, a test of a model that includes mechanisms (why it works --- mediators/short-term outcomes) and follows elementary students longitudinally. The project would serve a large number of students over the course of implementation as well and has potential to scale to a larger group.

Weaknesses:

The applicant does not provide strong justification for the inclusion of the family engagement (Pg. 4) or mentorship components within the literacy-based science instruction.
The connection between the i3 grant and the current application is unclear, yet the authors utilize that ELL grant to support the current applications' status as meeting Priority 1.

Reader's Score: 9

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: 24

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

   Strengths:

   The applicant outlines goals,objectives,and strategies that are clearly related to the overall goals, which also fill the needs established in the significance section. Outcomes include multiple appropriate measures to demonstrate success (Pp. 10-13). The applicant has clearly thought about multiple components of this project and how the components have synergy with one another.

   Weaknesses:

   None noted

   Reader's Score: 10

2. **(2) 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 convincingly establishes the need to support studies in rural schools (Pg. 4), with a focus on high needs populations (Pg. 2), and identifies strategies to meet the needs of these students (Pg. 13).
   The applicant explicitly addresses rural barriers to implementation and feasible solutions and the recruitment efforts include English Learners and students who are Economically Challenged (Pg. 13, Appendix/Letters of Support).

   Weaknesses:

   None noted.

   Reader's Score: 5

3. **(3) The extent to which the proposed activities constitute a coherent, sustained program of research and development in the field, including, as appropriate, a substantial addition to an ongoing line of inquiry.**

   Strengths:

   The applicant provided a history of the work that began with literacy-infused science and IES studies, across grades K-5 (Pg. 13). The background provided establishes a need for most components included in this project, and provides convincing evidence that stakeholders would benefit from rigorous research about virtual science teaching and learning.
   The applicant calls out four specific additions to the line of inquiry (Pg. 14) including rural focus, virtual vs. digital testing at elementary level, virtual classroom observations, and AI observation tools. These topics are substantial additions to the current literature.

   Weaknesses:

   It appears that both treatment and comparison students are receiving all components of the intervention (e.g., Strategy 4.1 suggests mentorships are for both treatment and comparison student), isolating the effect of the

intervention as virtual or not. However, all intervention components have not been tested as a single intervention to date, so the readiness for this next level of testing is not fully established (Pg. 13). In particular, the applicant proposes an ambitious set of activities to occur simultaneously, and as such it is not evident that there has been a single study that combines all core components of this study.

Reader's Score: 4

4. **(4) The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

Strengths:

The applicant makes the strong argument that AI has the opportunity to support efficiency for in-service and pre-service teachers (Pg. 12).

The applicant has improved virtual components of the intervention following prior research, suggesting it is well-situated for further testing (Pg. 14).

The applicants provide reasonable expectations that the virtual nature of this project would lend efficiencies to both the implementation of the science teaching and learning by reducing travel needs, but also by improving efficiencies associated with training and research. The applicants describe that resources provided online through the learning management system will cut costs for printing. Furthermore, the contribution of an AI observation system, if it works well, will save time be worth the resources invested in its development (Pg. 15).

Weaknesses:

None noted.

Reader's Score: 5

Scaling - 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: 16

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 a strategy to scale based on prior work (Coburn, 2003, as cited on Pg. 15), and elaborates to some extent about how this project will ensure depth, sustainability, spread, and shift of ownership.

The applicant is using this mid-phase EIR platform to incorporate schools from across rural LEAs in TX, which meets the regional scaling requirement.

The applicant identifies common barriers with implementation of large-scale projects and provide reasonable and specific solutions.

Weaknesses:

The VP is meant to address sustainability by providing findings to stakeholders "so schools can maintain or sustain the work". This manner of sustainability is not specific enough to understand whether or not the schools would have the capacity to take this work on. Similarly, the identification of strategies to ensure shift of ownership is vague and not specified, bringing some concern that it would reach its' potential distribution. The applicants suggest the materials will "be in place with easy access by school personnel" but does not specify how the materials can be accessed.

Reader's Score: 7

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

    Strengths:

    The applicant suggests the team will annually report impact study findings, which will ensure dissemination happens early and regularly (Pg. 4)
    The applicant plans to disseminate via papers, presentations, webinars, implementation guidance, and additional resources. It is appropriate to consider multiple dissemination domains and audiences and it is a strength of the program that the documentation of implementation will be shared to support further scaled approaches (Pg. 18).

    Weaknesses:

    The applicant describes few venues (e.g., there are no journals or conferences suggested), so it is difficult to evaluate whether or not the dissemination plan targets the appropriate audiences.

Reader's Score: 9

Resources and Quality of Management Plan - Resources and Quality of Management Plan

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: 21

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 project team has a history of receiving i3 funding so demonstrates organizational capacity to design and test an intervention under this kind of model (Pg. 18).
    The project has a large partnership team with demonstrated experience and support (Pg. 2, letters of commitment) that would serve to support the implementation of the ambitious goals set by the applicant.
    77 commitment letters are an impressive demonstration of support and promise to meet recruitment goals.

Weaknesses:

None noted.

Reader's Score: 10

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

Strengths:

The budget narrative and worksheet suggest the project plan will be implemented with reasonable cost over the course of the project period.

Weaknesses:

The evaluation budget seems minimal for costs that are typically associated with conducting an RCT ($125,000, Pg. e63), suggesting other staff may support data collection or analysis activities- this could jeopardize independence of the impact study.
No cost analyses were proposed.

Reader's Score: 3

3. **(3) The potential for continued support of the project after Federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.**

Strengths:

The applicant has considered partnerships such as the TAMU Technology Commercialization and LogMeIn to continue usage; has considered how to maintain use of MOOPILs, and training, and suggests they will continue building relationships to foster support. These approaches are moderately reasonable for each intervention component listed.

Weaknesses:

The program costs $871.41 per person across three years. While the applicant suggests this is a strength, this cost seems high and could hinder future sustainability (Pg. 21).
The program model for continued support seems to primarily focus on business such as fee for services and commercialization in the private industry. This cost could serve as a barrier to schools who wish to implement each component digitally or in-person, and could then inhibit scaled approaches (Pg. 21)

Reader's Score: 4

4. **(4) 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 has described management groups that are reasonable, have clear goals and oversight over appropriate project activities, and carry the appropriate expertise to ensure activities will happen according to plan. In addition, the team has thought about additional critical components that must occur over the course of the project.

Sub

Weaknesses:

It will be very challenging to analyze and report data for students in grade 5 during the final year of the study; state assessment scores are typically not released until summer or fall of the following academic year, and project funding for a three-year project would end prior to the ability to demonstrate impact of the longitudinal approach in year 3.

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: **14**

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 this notice).**

Strengths:

The applicant has proposed a design that would meet randomization criteria for WWC; explicitly addresses the target population in the sample; and serves a large number of districts, with the anticipation that sixty schools will be recruited (75 students per school; grade 3, 4, and 5)(Pg. 24). This sample size surpasses the requirement of 350 students to meet evidence standards.
Impact study analysis plans account for clustering, and the design appropriately considers attrition based on history, considers an intent-to-treat model in an appropriate fashion, and defines exclusion of students with missing outcome data (Pg. 25). All aspects of this impact design would meet most design standards for WWC without reservations if implemented well.

Weaknesses:

The primary concern with the research design is that there are no clear hypotheses about whether or not the virtual or in-person science curriculum will have stronger impact on student outcomes. Absent this hypothesis, it is impossible to judge whether or not the power analysis is appropriate. In particular, it is possible both models will perform equally well, in which case, the impact analyses must be powered to detect a null (or very very small) effect size, and the sample would need to be much larger. The applicant describes an effect size parameter in the power analysis for the CRISELLA intervention (Pg. 24), which is not the same.
It appears the intervention and comparison conditions will receive all of the same intervention components; with two variations. One variation is that one model is in person and the other is virtual. The other distinction is that one model is during the school day and the other during after school time (Appendix). If there is a difference in impact, the counterfactual is unclear, and it may just be the difference in implementing during in-school versus out of school time. Furthermore, the design of this study will not provide evidence about which components of the science curriculum impact student outcomes. This design does not appropriately align with Objective 1 (Pg. 9).
There is no description of testing for baseline equivalence in impact analyses.

Reader's Score: **7**

2. **(2) 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 project team has identified and used a reliable fidelity measure for multiple components including the family engagement system (Pg. 12).
The QUAN+qual nature of the evaluation design (Pg. 23) will provide rich information about implementation that is mapped onto rigorous rubrics, some which are developed and some which will be developed; and the AI observation component will add an interesting layer to findings about implementation.
Mediational analyses proposed are appropriate to the research questions (Pg. 26)

Weaknesses:

Virtual PD, virtual mentoring, and ELLA-V materials were provided in the i3 study (Appendix logic model), but for this project it is difficult to ascertain which are the core components of the intervention from the application. Pg. 8 describes multiple elements, yet the STOR measure referenced as capturing key components is specifically related to observation (Appendix I.19), and Pg. 25 describes key components measured in fidelity as PD attendance, coaching attendance, and curriculum material provision, which is like a weak connection with all project activities.

Reader's Score: 2

3. **(3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.**

Strengths:

The applicant will use standardized state assessments for primary impact questions, which aligns with WWC standards; additional observational, quantitative, and qualitative measures have demonstrated evidence of reliability or are tests of psychometric properties are included directly within the proposal objectives. The applicant has developed a clear and reasonable set of planned contrasts (Pg. 30/Appendix I.22).

Weaknesses:

None noted.

Reader's Score: 5

Status: Submitted
Last Updated: 08/03/2020 06:57 PM

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411B200055)
Reader #4: **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		10	10
Quality of Project Design			
1. Quality of Project Design		25	22
	Sub Total	35	32
Scaling			
Strategy to Scale			
1. Scaling		20	16
	Sub Total	20	16
Resources and Quality of Management Plan			
Resources and Quality of Management Plan			
1. Resources and Management		25	22
	Sub Total	25	22
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		20	20
	Sub Total	20	20
	Total	100	90

Technical Review Form

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

Applicant: Texas A&M Research Foundation (S411B200055)

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 factor:**

Reader's Score: 10

> **Sub**
>
> 1. **(1) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**
>
>   **Strengths:**
>
>   Strengths: The applicant provided evidence of the success of two previous funder projects from which they will build upon to complete the proposed project. The significance of the proposed project is to develop a technology-based program focusing on improving online science instruction of rural high-needs elementary students (pg. 3). Since Covid 19 pandemic there has been a determined need for online learning methodology; therefore, it is important for research on the most effective ways to assist teachers improve science learning for rural elementary high-needs EL and EC students' engagement and achievement in science (pg. 1-6).
>
>   **Weaknesses:**
>
>   Weaknesses: No weaknesses noted.

>   **Reader's Score:**   10

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: 22

> **Sub**
>
> 1. **(1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

Sub

Strengths:

Factor 1: In the project design the applicant identified one goal that is aligned to thoroughly specified four main objectives, detailed strategies and outcomes supporting each objective with specific measurement of efficacy and impact of the project. (Logic Model Appendix I) (pgs. 9-13)

Weaknesses:

Factor 1: No weaknesses noted.

Reader's Score: 10

2. **(2) 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:

Factor 2: The proposed program addresses the needs of the targeted population of students and teachers through the use technology, paid internet connections, online professional development for teachers, and materials for students to use at home (pg. 13).

Weaknesses:

Factor 2: The applicant includes addressing a need for families/parent involvement (pg.9), but lacks supporting details on how this project will meet the need (pg. 13) The applicant includes university majors as mentors of students and teachers as a way to meet their needs; however, the applicant lacks an explanation on the qualifications of these individuals in mentoring teachers (pg. 13).

Reader's Score: 3

3. **(3) The extent to which the proposed activities constitute a coherent, sustained program of research and development in the field, including, as appropriate, a substantial addition to an ongoing line of inquiry.**

Strengths:

Factor 3: The applicant provided details on prior research projects with activities that were deemed coherent and sustainable that are in relation to this proposed project. With this in mind the supporting details of the prior research projects in relation to this project would appear to make this project coherent and sustainable (pgs. 13-15).

Weaknesses:

Factor 3: The weakness in this proposed project lacks an explanation on how their design of the virtual classroom observation through face-to-face and online will provide teachers the needed feedback in implementing strategies obtained through professional development training to be sustained at the end of the project (pg. 14)

Reader's Score: 4

4. **(4) The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

Sub

Strengths:

Factor 4: The applicant provided details on how the proposed project will increase efficiency in the use of time, staff, money, or resources in order to improve results and increase productivity through the use of virtual components for Advisory Board meetings and staff trainings reducing the expenses for time, travel, and training expenses; the use of state testing by in classroom teachers reducing the cost of assessments and the cost of individuals to administer the testing; and the use of the virtual learning management system decreasing the cost of materials for students and teachers (pgs. 14-15).

Weaknesses:

Factor 4: No weaknesses noted.

Reader's Score: 5

Scaling - 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: 16

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:

Factor 1: Table 1 (pg. 17) specifically identifies strong strategies that address the specific barriers from the past preventing the applicant from reaching the level of scale that is proposed in the project.

Weaknesses:

Factor 1: No weaknesses noted.

Reader's Score: 10

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

Strengths:

Factor 2: The applicant identified disseminate information on the project by its development of 20 VICTORY-Virsity MOOPILs venue (pg. 11). The other means of dissemination consist of professional papers, journal articles, and presentations (pg.18)

Weaknesses:

Factor 2: The applicant lacks an analysis on how the dissemination of the information on their project will lead to further development or replication. The applicant is very vague on the actual dissemination of the information on its project so as to support replication of its project. Developing just 20 MOOPILS will not reach a wide audience for dissemination (pg. 11).

Reader's Score: 6

Resources and Quality of Management Plan - Resources and Quality of Management Plan

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: 22

   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:

      Factor 1: The applicant's capacity to being the proposed project to scale on national or regional level is supported with evidence of qualified personnel and supporting staff who have previous experience of managing and bringing to completion previous grant projects. The applicant identified support and commitment from individuals who have experience in a wide range of research with children (students) from high-poverty areas. The applicant identified resources such as facilities and funding support from committed to strong and organizational support (pgs. 18-20).

      Weaknesses:

      Factor 1: No weaknesses noted.

   Reader's Score: 10

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

      Strengths:

      Factor 2: The applicant identified the spending cost of the proposed program as $871.41 per 9,180 participants over a three-year period of grant funding. Considering the cost per participant it is reasonable for the design of the project (pg. 20-21).

Weaknesses:

Factor 2: No weaknesses noted.

Reader's Score: 5

3. **(3) The potential for continued support of the project after Federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.**

Strengths:

Factor 3: The applicant provided details on ways for continuing support through Texas A&M Research Foundation, CRDLLA, and ELRC of the proposed program after grant funds are exhausted (pg. 21)

Weaknesses:

Factor 3: The applicant provided details of support of the project after funding ends as to commercialize some of the MOOPILs with fees being charged for the use; and the applicant plans to charge a fee for the training of the components of the program. With fees being charged to rural schools that already operate on strict budgets the fees may not be feasible; therefore, making this program impossible to implement in the schools (pg. 21).

Reader's Score: 2

4. **(4) 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:

Factor 4: Table 2 (pgs. 22-23) provides specific details of the defined responsibilities, timelines, and milestones for accomplishing the project tasks providing adequacy of the management plan in achieving the specified objectives.

Weaknesses:

Factor 4: No weaknesses noted.

Reader's Score: 5

Selection Criteria - Quality of the Project Evaluation

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

Reader's Score: 20

Sub

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

   Strengths:

   Factor 1: The applicant provided a very thorough description of the methods of evaluation that will provide evidence about the project's effectiveness and meets the WWC standards (pgs. 3 & 23-29). The applicant identified specific research questions for each specified objective.

   Weaknesses:

   Factor 1: No weaknesses noted.

   Reader's Score: 10

2. **(2) 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:

   Factor 2: The applicant provided a detailed description of the evaluation plan that articulates the key project components, mediators, and outcomes with a measurable threshold for acceptable implementation (Appendix I 22&23) (pgs.29-30)

   Weaknesses:

   Factor 2: No weaknesses noted.

   Reader's Score: 5

3. **(3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.**

   Strengths:

   Factor 3: The applicant provided specific methods of evaluation that will provide valid and reliable performance data on relevant outcomes (Appendix I 22) (pgs. 29-30).

   Weaknesses:

   Factor 3: No weaknesses noted.

   Reader's Score: 5

Status: Submitted

Last Updated: 08/03/2020 03:17 PM

Technical Review Coversheet

Applicant: Texas A&M Research Foundation (S411B200055)
Reader #5:   **********

		Points Possible	**Points Scored**
Questions			
Selection Criteria			
Significance			
1. Significance		10	10
Quality of Project Design			
1. Quality of Project Design		25	21
	Sub Total	35	31
Scaling			
Strategy to Scale			
1. Scaling		20	12
	Sub Total	20	12
Resources and Quality of Management Plan			
Resources and Quality of Management Plan			
1. Resources and Management		25	23
	Sub Total	25	23
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		20	19
	Sub Total	20	19
	Total	100	85

Technical Review Form

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

Applicant: Texas A&M Research Foundation (S411B200055)

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 factor:**

Reader's Score: **10**

Sub

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

   Strengths:

   -       The proposed project has potential to make significant contributions to the improvement of STEM education for rural elementary students, particularly for economically challenged students eligible for free or reduced-price meals and/or English learners by studying the effects of virtual/online instruction against face-to-face teaching.

   -       The application proposes to assess the impacts of important factors for science education, including ones that are little examined in the previous studies for the effects of online instruction, such as the family Involvement, online mentoring and coaching, online classroom observations, science role models and mentors.

   -       The results of the proposed project are likely to produce information under what conditions which children learn more effectively.

   -       The project is to serve the online program to a significant number of students, 4500 students in 3rd - 5th grades (1500 students per year) in 60 campuses from the 418 Texas rural and Low-Income school program-eligible districts.

   -       The proposed intervention to study, CRISELLA, is unique. The literacy-infused science curriculum with components to facilitate student reading, comprehension, and development of academic science concepts is likely to promote science and language learnings together.

   -       The prior evidence on the same intervention is not directly from the proposed intervention itself. However, the evidence supports the effects of the proposed study.

   Weaknesses:

   None noted.

Sub

> **Reader's Score: 10**

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: 21

> **Sub**

> 1. **(1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**
>
>   **Strengths:**
>
>   -   The goals, objectives, strategies to achieve the objectives, outcomes and measures are clearly specified and comprehensively described on pages 9-13.
>
>   **Weaknesses:**
>
>   None noted.

> **Reader's Score: 10**

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

   Strengths:

   -        The design of the proposed project looks appropriate to successfully address the needs of the target population, rural elementary students, particularly for economically challenged students eligible for free or reduced-price meals and/or English learners.

   -        The longitudinal models of intervention in Appendix I-4 and I-5 are specific and logical.

   -        The sample of lesson plan in Appendix I-6 is comprehensive, with learning objectives and activities, daily science and language objectives, and learning materials for daily instruction.

   -        The logic model in Appendix I.14 clearly shows relationships between, resources, activities, outputs instructional, and outcomes for short-term, mid-term and long-term.

   -        Appendix I.15 shows pedagogical principles and instructional activities for dimensional transitions of bilingual education.

   Weaknesses:

   -        Insufficient information is provided to clearly understand the design and specifics of teacher PD.

> **Reader's Score: 4**

3. **(3) The extent to which the proposed activities constitute a coherent, sustained program of research and development in the field, including, as appropriate, a substantial addition**

to an ongoing line of inquiry.

Strengths:

- The virtual mentoring and coaching, ongoing virtual PD, virtual observations, sample excerpts of rubrics, and family involvement in science in Appendix I.7-12 are specific, detail and helpful to understand the features of the intervention.

- The curriculum materials and instructional activities of the intervention are described in detail in pages 7-8, and they look based on research and development in the field. The results of this project, particularly the results of RCT and implementation studies, are likely to provide a meaningful addition to an ongoing line of inquiry.

Weaknesses:

- If important elements and procedures for teacher PD and instructional activities for student could be presented in an organized structure and sequence, it could be more helpful to understand the implementation process of the intervention.

Reader's Score: 4

4. **(4) The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

Strengths:

- There is a potential that the efficiency in the use of staff time, money and resources can be increased by integrating advanced technology like AI into the intervention in the future.

Weaknesses:

- Insufficient information is provided to assess how likely the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.

Reader's Score: 3

Scaling - 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: 12

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:

- Four dimensions for scaling up in education (depth, sustainability, spread, and shift of ownership) are clearly addressed for the proposed project.
- The identified barriers and solutions are clearly presented in Table 1 on page 17.

Sub

Weaknesses:

- The identified barriers and solutions presented in Table 1 are mainly for the evaluation study more than successful implementation and scaling of the intervention.

Reader's Score:　　6

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

   Strengths:

   - The applicant's plan to place all curriculum, implementation manuals, and other materials on online is likely to ensure the continuous implementation of the intervention after federal funding expires.
   - The application proposes to publish papers and make research briefs available on the websites.

   Weaknesses:

   - The application provides the cost estimate for the implementation, about $871.41 per person. But, little information is provided how to raise the cost for the implementation after the federal funding expires.

   - No specific information is provided about the production and dissemination of the products (e.g., frequencies and volumes).

Reader's Score:　　6

Resources and Quality of Management Plan - Resources and Quality of Management Plan

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:　　23

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 experiences and expertise of the partner organizations and the resumes of the key personnel show that the applicant has capacity and resources to successfully carry out and scale up the project on at least a regional level.

Sub

> **Weaknesses:**

None noted.

> **Reader's Score:**   **10**

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

> **Strengths:**

-        Overall, the proposed budget looks reasonable. The budget narratives include detail personnel and other costs.

> **Weaknesses:**

-        Insufficient information is provided to assess how adequate the proposed budget is for different categories of the project. Estimated man hours for important tasks would be helpful.

> **Reader's Score:**   **4**

3. **(3) The potential for continued support of the project after Federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.**

> **Strengths:**

-        It looks a good idea that the applicant plans to maintain collaboration with some of the partners and build relationships with private foundations and corporate sponsors to raise funds for the continuous support after the federal funding expires.

-        It is reasonable to propose commercializing some of the intervention products and increase revenues from webinars, training for schools, and access to online materials.

-        The application includes commitment letters from the partners and school districts to participate in the project as described in the application.

-        The intervention is likely to sustain after the federal funding ends, because the applicant proposes to make all curriculum, implementation manuals, and other materials available online for schools to have easy access.

> **Weaknesses:**

None noted.

> **Reader's Score:**   **5**

4. **(4) 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:**

-        Four management groups, advisory board, policy and procedural oversight group, application/ implementation group, and evaluation group, described in the application are likely to be helpful to effectively and responsibly manage important parts of the project.

-        Table 2 on pages 22-23 clearly displays all the project milestones, responsible group and timelines.

Sub

Weaknesses:

-           It is unclear how the different management groups and personnel staff will be efficiently coordinated.

   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: 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 this notice).

   Strengths:

-           The power analysis in the evaluation plan shows that the RCT of 60 schools will produce evidence on the effects of the intervention that would meet the WWC standards without reservations. The total estimated number of students, 1500 (25 per class per school) in grades in 3-5, is also large enough.

   Weaknesses:

-           It is unclear whether the 60 schools can be randomly selected from 112 schools in 77 districts, as described in the application. Unless all of the 112 schools agreed to participate in the evaluation, it may be difficult.

   Reader's Score: 9

 2. (2) 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 intervention components, mediators, outcomes, and measures, acceptable thresholds of the outcomes, validity and reliability of data collection instruments, and data analysis model are all comprehensively described.

-           The research questions for each objective are clearly described in confirmatory, exploratory and implementation questions. See Appendix I.22 for the learning outcomes and assessment methods for every research question for different domain areas.

-           Data collection instruments provided in Appendix I.17-21 and the data collection procedures are clearly described.

Sub

    Weaknesses:

None noted.

    Reader's Score: **5**

3. **(3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.**

    Strengths:

-        The methods of evaluation, including the design (RCT), sample size, outcome measures, data collection instruments, and data analysis model, clearly indicate that the evaluation will produce valid and reliable performance data on relevant outcomes, if it is implemented as proposed.

    Weaknesses:

None noted.

    Reader's Score: **5**

Status: Submitted

Last Updated: 08/03/2020 01:41 PM