

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

Status: Submitted

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

Technical Review Coversheet

Applicant: Niswonger Foundation (S411B200035)

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	20
Sub Total	20	20
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	18
Sub Total	20	18
Total	100	93

Technical Review Form

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

Reader #1: *****

Applicant: Niswonger Foundation (S411B200035)

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 a previously funded i3 grant and has identified three promising areas of inquiry on which to base this project. (P.2) The proposal makes a strong argument that supplementing STEM curriculum with additional engaging materials for students for use both during school time and for out of school activities, professional development for teachers and the opportunity for students to enroll in dual enrollment college courses is likely to improve results in this scale up project. P. 3
- The applicant provides evidence from relevant research that these three effective strategies are likely to address specific learning gaps and barriers that rural students bring to learning. P. 5-7

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 has identified an adequate plan of goals and objectives to guide the proposed project. P. 8-9.

Weaknesses:

- The applicant has only listed goals and objectives on Table 1 for the project (P. 8-9). In Appendix I, the outcomes are not specific or measurable. For example, one outcome "Increase in school supportive learning climate." This is not measurable since it does not provide specific criteria for success.

Reader's Score: 7

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' makes a strong argument using research-based support that the proposal design will address the needs of the rural students and teachers participating in this project. P. 10-12

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 has provided a coherent, sustained program of activities for this project. This plan has a high potential of increasing knowledge and understanding of how STEM educational practices can increase Science performance for rural students. Appendix 1 and P. 12
- The project will implement several Improvement Community (IC) networks to allow practitioners to generate grassroots solutions to problems encountered during implementation. This is an excellent support for the project since project staff can not only address any problems or concerns as they may arise but also build stronger educator buy-in into project success. P. 13

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 proposed project provides a strong argument that the project can save money by allowing students to take courses online. Schools can also save money by reducing the need for providing repeat or remedial courses for students who have not been successful. P. 14-15
- The applicant's use of a Steering Team to monitor the efficient use of project resources is likely to improve overall results, allow for problem solving as issues and concerns arise and an increase in staff productivity by using

Sub

more engaging and research-based instructional practices. 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: 20

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's proposal presents promising, research-based strategies to address the most common barriers faced by rural students in learning, such as access to rigorous coursework, instructor capacity and ongoing access for low income students to high quality enrichment opportunities in STEM education. P.15-29

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.**

Strengths:

- The proposal has identified adequate avenues in which to share project results within the local community as well as on a broader nation-wide basis through published reports, conferences, webinars and similar types of venues. P. 16-17

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: 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 applicant presents clear evidence that they have qualified personnel, management capacity, previous grant management experience, resources such as an online course delivery platform and the ability to bring relevant and appropriate partners to facilitate the success of the proposed project. P. 17 and Appendix

Weaknesses:

- The applicant states that they are currently managing other 13 and mid-phase grants in addition to holding full time jobs. The applicant provides no information on how much time staff will spend on project activities and the management of this grant. Line items in the budget narrative list full funding of all project staff salaries.

Reader's Score: 8

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 applicant has provided evidence of an effective plan to reduce service costs of delivering professional development. They will also be able to leverage their online network to deliver some of the new curriculum to students which will also save financial resources. P. 21-22

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 evidence of having a long history of effective partnerships and support for educational organizations in the project area. As a result of designing the project with long-term sustainability in mind, there is a strong likelihood of the project being able to be continued with minimal investment or possible state support after the completion of the funding period. P. 23

Weaknesses:

- None noted.

Reader's Score: 5

Sub

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 provided an adequate management plan delineating the tasks, person(s) responsibility and timeline for the project. P. 23

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 applicant has provided an adequately rigorous evaluation process that has promise of meeting the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook. P. 29

Weaknesses:

- The applicant's evaluation plan gathers attendance data for project teacher PD but does not clearly address indicators of performance improvement as a result of professional development provided within the project.

Reader's Score: 8

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 that will measure the success of this project. P. 26-29
- The evaluation plan clearly establishes a measurable threshold for acceptable implementation of significant results that might be found during the evaluation process. P. 27-28

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 and the size of the sample will provide valid and reliable performance data on relevant project outcomes. P. 27-29

Weaknesses:

- None noted.

Reader's Score: 5

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Status: Submitted

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

Technical Review Coversheet

Applicant: Niswonger Foundation (S411B200035)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	10	10
Quality of Project Design		
1. Quality of Project Design	25	17
Sub Total	35	27
Scaling		
Strategy to Scale		
1. Scaling	20	20
Sub Total	20	20
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	25	19
Sub Total	25	19
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	20	13
Sub Total	20	13
Total	100	79

Technical Review Form

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

Reader #2: *****

Applicant: Niswonger Foundation (S411B200035)

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 proposal includes compelling evidence of the need for the program in the area being served and how the proposed project will produce results that will further understanding of CTE work in rural settings (p. 22). For example, the inclusion of the approach to distance learning will provide useful strategies to other districts struggling with these issues (p. 23). The proposal integrates several elements that combined will have an impact on the population served and provide evidence of approaches to STEM work (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: 17

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 proposal includes some goals and objectives that are clearly defined and would contribute to the overall success of the program if implemented fully (p. 25). The goals and objectives appear to be aligned to the structure and delivery of the proposed program (p. 27).

Sub

Weaknesses:

Many of the goals and objectives are poorly defined and would be difficult to measure. For example, Objective 1.3 proposes to develop and widely implement strategies to drive higher participation in advanced courses, but it is unclear what these might be or how they would be measured (p. 26). It is unclear how the measures of algebra completion and performance will be reflected in the activities associated with high school students (p. 26).

Reader's Score: 6

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 baseline measures and diagnostic assessments will help articulate a plan that will address the needs of participating students (p. 27). The use of the data from these assessments to produce the curriculum for teachers and students will ensure appropriate application of relevant content (p. 28).

Weaknesses:

It is not clear how the proposed activities will be aligned to rural low-income students as noted in the proposal (p. 27). In contrast to a specific focus on the target students, the proposal notes that all students will benefit from the program (p. 28). It is not clear how the specific needs of low-income students will be differentiated from those who are not low-income (p. 27).

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 connection of the program approach, the logic model and the intended evaluation provide a coherent approach to the project and aligns the work to the planned outcomes (p. 29).

Weaknesses:

While the use of improvement communities (p. 29) will benefit the ongoing implementation of the program it is unclear how this connects to work previously done with this population or previous research. It is not clear how the proposed program furthers specific work being done with rural lo-income students in STEM.

Reader's Score: 3

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 proposal includes many aspects of aligned work and shared service (p. 31) that demonstrate the projects ability to increase efficiency and improve student results.

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: 20

- 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 three barriers identified in the proposal are well supported and align to the work to be performed (p. 33). It is clear that the needs of students in rural Tennessee might need a STEM type program due to the lack of resources (p. 33).

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.

Strengths:

The local, regional and national dissemination activities will provide useful information to others who would like to replicate the work of the project (p. 33). The inclusion of parents in the project design allows for complete communicate of project activities within the community (p. 33).

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: 19

- 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

Sub

period.

Strengths:

The applicant clearly has the capacity to manage a project of this scope and size due to their current experience with an EIR grant, the existing personnel assigned to oversee the projects and the partners involved in the program (p. 37). The partnerships with universities and industries such as TNTP and BioBuilder Educational Foundation (p. 36) demonstrate the commitment of the applicant to seek out resources as necessary. The partnership matrix (p. 37) is helpful in identifying how each organization will contribute to the project.

Weaknesses:

Two key positions, Implementation Coordinator and Curriculum Specialist, have not yet been hired and it is unclear how their experience will impact the implementation of the program (p. 35).

Reader's Score: 8

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 expected costs associated with the implementation of the program appear to be reasonable based on the information provided in the budget narrative and the project descriptions (p. 131) The project provides a cost of approximately \$27 per student (p. 39) which is reasonable based on the quality of program proposed.

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's history of successful implementation and continued use of previous projects is a strong indicator of continued support after funding has ended (p. 39).

Weaknesses:

The proposal does not include sufficient support that funding for ongoing development and or training will be provided by either the state or participating districts (p. 39). While previous projects resulted in successful continuance, this project is including new schools and areas but does not provide evidence of their commitment to support beyond the program.

Reader's Score: 3

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 proposal includes clear responsibilities and timelines that will help guide the project (p. 40).

Sub

Weaknesses:

The management plan lacks clear milestones that could be used as markers of successful implementation of project goals (p. 40). For example, TNTP is responsible for Level 1 activities but it is unclear what needs to happen for those to be accomplished.

Reader's Score: 3

Selection Criteria - Quality of the Project Evaluation

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

Reader's Score: 13

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 project includes several designs in the evaluation, and the RCT design will meet some of the requirements of the What Works Clearinghouse without reservations (p. 43). The collection of baseline equivalents and the sample size proposed will meet the requirements (p. 44).

Weaknesses:

The evaluation does not appropriately address attrition in their design (p. 46). The proposal notes that baselines will be established using prior achievement data but it is unclear what specific data will be used (p. 42). It is unclear how the schools will be assigned to treatment or control groups (p. 42). The overall proposal is focused on engagement in STEM (p. 18) but the evaluation does not include any measure of STEM participation or engagement (p. 42), rather, it is focused on attendance, climate and math achievement.

Reader's Score: 5

- 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 and logic model (p. 125) include sufficient information on the consideration and analysis of outcomes and mediating variables. The evaluation includes clear information on appropriate implementation thresholds for some of the variables that will guide the project through implementation (p. 44).

Weaknesses:

The threshold measures do not include information regarding students' participation in the STEM courses or activities (p. 45). The logic model notes that students will participate in out of school STEM activities but no data on implementation is collected (p. 21).

Sub

Reader's Score: 3

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

Strengths:

The data collected to address the project outcome measures will provide reliable and valid evidence of impact (p. 46).

Weaknesses:

None noted

Reader's Score: 5

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Technical Review Coversheet

Applicant: Niswonger Foundation (S411B200035)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	10	9
Quality of Project Design		
1. Quality of Project Design	25	18
Sub Total	35	27
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	17
Sub Total	20	17
Total	100	81

Technical Review Form

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

Reader #3: *****

Applicant: Niswonger Foundation (S411B200035)

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:

In the GEPA section, the abstract, and Section A, the applicant provides a concise, well-justified summary of the need to provide STEM education opportunities to teachers and students in rural areas, and in particular in rural Tennessee, where the demand for highly qualified individuals to pursue STEM careers is outpacing the supply. They propose a package of activities known as STEM.LD, which includes professional development for teachers, out of school opportunities for students, and encouragement for high school students to participate in more advanced mathematics courses. The applicant provided strong justification that evidence supports the need for in-person and virtual STEM learning support through these activities and linked them clearly to the goals (abstract, Pg. 1, and Pp. 5-7).

The applicant provides moderate justification that Priority 1 is met. They refer to prior research (Pg. 2 and Evidence Form) that suggest PD methods and dual enrollment lead to positive student outcomes and college and career readiness. The applicant also has received prior i3 funding (Pg. 2, Pg. 17, Pg. 18) that provides foundational database, web-based components, and network for the proposed activities. While the full STEM.LD model has not been evaluated to the standard required by Priority 1, the applicant has concerned multiple sources of evidence to devise a comprehensive and research-based intervention.

The applicant has described a program of research that supports students, teachers, and school communities and will be tested at the middle school level through a rigorous RCT and the high school level through a QED (Pg. 26). They have also proposed to continue to build models to understand what works through an Improvement Community (Pp. 12-14), which will help to create concrete understandings of project components and make it more likely that the program will contribute significance to the field.

If the applicant is able to document how the package of teacher PD, OST opportunities, and access to curriculum can support student outcomes, it would be a novel approach to combining needs in a creative way.

Weaknesses:

The applicant has not provided convincing evidence that this proposal meets Priority 1. For example, although the applicant states that the "program incorporates components of interventions that have demonstrated positive impacts on short-term student achievement outcomes, and that were tested with methods that meet WWC standards for moderate evidence", there are no clear associations between which components of the tested model will be incorporated into the teacher professional development. The applicant lacks a clear description of the

Sub

findings of the IES grant that began in 2010 and exactly which components are being adapted or utilized in the current approach to build knowledge.

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: 18

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 applicant has outlined a set of goals and objectives that are fairly clear (Pg. 8) and align clearly to the project's theory of action (Pg. 4). For example, Objective 2.3 describes 40 local champions who will be trained and provide OST STEM activities. This outline helps the reader understand what could be a very complicated network of individuals and tasks in a clear and reasonable way with well-articulated, measurable goals.

Weaknesses:

Pg. 8 specifies that this project is to "develop, pilot...a set of innovations...". This overall statement is concerning because it suggests that the professional development has not yet been developed. The new curriculum supplements, work group, and institute are not clearly defined. Objective 2.1 suggests that 3-5 new OST experiences will be created for students that include a variety of topics. However, 7 different partners are proposed and a number of different activities could be identified. It is unclear how these specific activities will be selected. There could be difficulty with Objective 3.3 because development, piloting, and implementation of new classes would be challenging without the buy-in of colleges providing dual enrollment credits or others providing certification; letters of support related to this activity were no provided.

Reader's Score: 7

- 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 clearly describes the target population in rural Tennessee, listing their partner schools (Appendix), a letter of support from the superintendents' association (Appendix), the rurality and high needs context (Pp. 3-4). The applicant describes a process of identifying needs for new materials and practices in partnership with TNTP (Pg 11). This diagnostic review, prior research, and resources that include four key components were provided in an overview, suggesting that although the materials are not yet developed, the project team has a plan in place to ensure the high quality development of them.

Sub

Weaknesses:

The discussion of the achievement and opportunity gaps on Pg. 4 approaches importance but was not clearly linked to prior evidence.

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 has a demonstrated track record of receiving i3 and EIR funding and anticipates using existing infrastructure from these studies (such as a data tracking system and the developed network, Pg. 21) to build professional development, OST, and dual enrollment opportunities. They also have a strong established network that will support a cohesive set of activities.

The activities proposed follow clearly from the significance and the need established.

Weaknesses:

In one place, the applicant cites the primary intervention as PD for STEM teachers (Pg. 10), but the intervention studied seems to focus on all components including PD, OST, and advanced coursework. This is a coherent set of activities but could be challenging to replicate in totality.

There are several components of STEM.LD that are not yet developed.. For example, the professional development and instructional materials have not yet been selected. This is a concern because it suggests that the strategies may not be ready to scale and are still under design and development.

STEM.LD is designed to address all STEM content areas at all grade levels (Pg. 3); however, the primary PD focuses on mathematics (Pg. 11) while the secondary focuses on all STEM. In addition, the outcomes of focus for the study include climate, attendance, and mathematics. Science outcomes are not measured. The broad scope of including all STEM activities could detract from a more focused understanding of how STEM.LD works for student outcomes.

Reader's Score: 3

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 describes how the Improvement Community model will support efforts for STEM in a more scalable and productive approach than LEAs working in isolation; and that student outcomes will improve. This argument is moderately convincing that the intervention will improve efficiency and productivity within the school system.

Weaknesses:

The applicant does not describe an established model for STEM.LD that already exists (e.g., existing PD modules or existing OST activities), so it is challenging to determine how this project will improve upon existing professional development and OST activities that are already provided in project sites.

The cost analyses proposed are weak and do not clearly outline procedures that will be followed (Pg. 15 suggests a Steering Team will evaluate it).

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: 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:

The applicant describes barriers to STEM course access and access to OST activities (instructor capacity and funding) that are reasonable (Pg. 15) and moderately convincing.

Weaknesses:

The barriers described were barriers to student success in STEM, not success of taking this intervention to scale (Pg. 15). There could be additional barriers to testing this intervention at a larger level that were not elaborated. The link between barriers and project activities was not explicit (Pg. 15). The investment upfront to customize PD and curricular supports would need to be personalized for each LEA or region that wishes to scale, and that component could be a challenge.

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 dissemination mechanisms proposed including a database, maximizing community connections such as with local champions, annual public reports, in person and virtual opportunities, seems comprehensive and well thought-out (Pg. 17). This plan would lead to the sharing of resources that would allow other regions and states to adopt a similar type of approach.

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: 21

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 demonstrated success managing a funded i3 and EIR application; has forged strong partnerships with clear roles in the project activities (e.g., listed on Pg. 19-20); and has clearly defined expectations for staff to be hired. These qualities lend credibility to the project team and contribute to the reasonable expectation that although project goals are broad, they could be accomplished with a strong team that pulls expertise from multiple sources. The evaluation would be conducted by an independent evaluator who is a certified reviewer for the What Works Clearinghouse (Pg. 24) and the qualifications of the evaluation team are strong.

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:

At the end of the project, costs will average \$26 per student (Pg. 22). This expectation provides convincing evidence that this program can be implemented with relatively small investment were it to be scaled. The applicant uses creative strategies such as local champions to support OST activities (Pg. 21); manipulatives that can rotate among locations; and consideration of virtual options (Pg. 22). Further, the use of existing technology and platforms helps to minimize the costs.

Weaknesses:

The budget narrative and logic model in the appendix mention Externships but these are not included in project activities or the narrative except for within the project evaluation.

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:

The applicant strong evidence that they "designed this project with long term sustainability in mind" based on existing infrastructure, priorities in Tennessee, and the nation.

Sub

Weaknesses:

The statement that OST activities may receive philanthropic support (Pg. 22) is not clearly elaborated and only suggests that a singular component of STEM.LD could be sustained if the project team relies upon further grant funding. There are few elaborated ideas for sustaining all STEM.LD activities longer term.

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 very clear, detailed timeline (Pg. 23) shows attention to detail, considerations of tasks to ensure objectives are met, and alignment with most project activities.

Weaknesses:

Professional development activities are not clearly described in terms of when they will be developed vs. provided to participants (Pg. 23). This would be necessary to ensure timely completion of a large set of objectives proposed by the applicant.

The evaluation timeline is vague (Pg. 23) and, absent elaboration, is impossible to judge whether the milestones would be accomplished in a timely manner.

The timeline (Pg. 23) assigns the responsibility for reporting to the evaluation team solely; but prior narrative suggests others would support dissemination efforts as well. There is misalignment.

Reader's Score: 3

Selection Criteria - Quality of the Project Evaluation

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

Reader's Score: 17

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 proposes an ambitious yet seemingly doable set of two studies. One is a study of outcomes after two years of intervention for students in middle school and is a cluster RCT that is designed to meet WWC standards with random assignment of schools to condition (Pg. 26), reliable outcome measures (pg. 29), adequate treatment of baseline covariates that demonstrate non-equivalence (Pg. 29), more than 300 students.

The study questions are well-defined and rational to examine the impact of STEM.LD supports on student outcomes.

The applicant poses well-defined study questions.

The second study is a study of outcomes after two years of intervention for students in high school and is a QED.

This study also has well-defined study questions and is designed to meet WWC standards with reservations

Sub

through matching on student achievement data (which, depending on the protocol used to review, could be sufficient to demonstrate baseline equivalence and meet WWC standards).
The study maximizes efficiency and data by using a design in which middle schools are randomized and high schools would follow (also randomly).
The applicant clearly describes that schools will receive either STEM.LD supports or business as usual.
The strong network of schools established by the applicant will contribute to the likely success of recruitment of 21 middle schools.

Weaknesses:

The power analysis specified a Minimum Detectable Effect Size that was not compared to prior interventions, so it is impossible to know if this study is adequately powered (Pg. 27). The description of it is also relatively weak; for example no justification was offered for selecting an ICC of .20 and the sample size of approximately 100 students per grade level per school is a slight overestimate based on the sample size provided on Pg. 26 (86 schools; 8K students = 93 students per school).
The sample size does not account for attrition which could also reduce the power to detect an effect.
It is unclear what the statement "After the first two years of implementation, the evaluation will follow students for two additional years to examine longer term outcomes:" (Pg. 25) means, and how it ties into evaluation activities and outcome measures.
The applicant failed to provide an analysis plan so it is impossible to determine whether or not analysis techniques to assess impact and mediations are appropriate for the design of the study.

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:

Clear fidelity thresholds that are measurable and include the data source are stated that align with the logic model (Appendix A, Pp. 27-28) and these will be measured for all treatment schools.

Weaknesses:

Indicator 1.3 refers to externships which are only specified in the logic model and not included in any narrative.

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 outcome measures are clearly defined and convincingly described as reliable in Table 5 (Pg. 29).

Weaknesses:

The major weakness with the study design is the focus on math outcomes, while the applicant makes a point that STEM.LD serves all STEM content areas (Pg. 3). This represents a narrow focus on a broader set of outcomes included in the theory of change. If students and teachers pursue science PD and OST, then it is unclear how and why their mathematics outcomes such as Algebra I pass rate would be affected.
The EOC test in Algebra 2 and Geometry are only mentioned in Table 5, and not elsewhere, so it is unclear if and how these will be included as measures

Sub

Reader's Score: 4

Status: Submitted

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

Status: Submitted

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

Technical Review Coversheet

Applicant: Niswonger Foundation (S411B200035)

Reader #4: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	10	10
Quality of Project Design		
1. Quality of Project Design	25	23
Sub Total	35	33
Scaling		
Strategy to Scale		
1. Scaling	20	20
Sub Total	20	20
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	20
Sub Total	20	20
Total	100	96

Technical Review Form

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

Reader #4: *****

Applicant: Niswonger Foundation (S411B200035)

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 thoroughly expressed significance, especially through adequate understanding of demographic area. The project strongly suggests effective strategies indicative of theory of action. The applicant provides positive and consistent strategies and knowledge throughout their significance determination (pg. 5).

Weaknesses:

Weaknesses: No weaknesses were 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: 23

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: The project design is well organized with easily identifiable goals and objectives. Table 1 (pg. 8) enhances the overall design, and clearly organizes goals and objectives into an easily readable and understandable format. The applicant provided an informative timeline embedded within table 1. The goals and objectives readily include rigor and researched based ideas. Ideas for implementation seem feasible with multiple objectives to meet their design.

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 project clearly identifies the target population (low-income rural students, (pg. 10). The applicant identifies areas of need and addresses the need of both high-quality STEM instruction as well as the use of high-quality materials. The proposal suggests the use of The Opportunity Myth (pg. 11) as ideas for an effective framework for their intended purposes. The follow through with ideas and terminology is very good.

Weaknesses:

Factor 2: The applicant fails to fully address the acronym TNTP on page 10.

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:

Factor 3: The applicant clearly identifies, in Appendix I, a sustained effort of understanding and development (pg. 12). Additionally, the proposed development of the improvement community (IC, pg. 12) identifies a component of ongoing and continuous evaluation of project needs and improvements. The applicant clearly identifies 3 operating groups (pg. 13) for help with facilitating the project, its effectiveness, and sustainability by addressing both challenges and opportunities.

Weaknesses:

Factor 3: No weaknesses 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:

Factor 4: Through the use of applicant's shared resources, higher quality efforts are identified as obtainable. These expressed resources should allow for efforts to be established; therefore, more efficiency in the use of time, money and quality resources.

Sub

Weaknesses:

Factor 4: The narrative offers an unclear picture of high quality evidence by referencing an 8th grade online option for Algebra I (pg. 14).

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: 20

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: The applicant shows impeccable knowledge of outreach area and effectively identifies the of lack of resources and barriers (pg. 15-16) for the rural demographics. The design of the project addresses the identified barriers, including instructor capacity and funding (pg. 15). The applicant identifies access to both high quality instruction and resources as the means to address, or eliminate, the suggested barriers (pg. 16).

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 discusses dissemination of project information very well by including the means of both outreach and engagement to share information widely within the project area. (pg. 16). The use of "We Track" (a database already in use), personal communications provided by "local champions," online public reports, conferences, and webinars are multiple tools the applicant references as mechanisms to communicate effectively with stakeholders (pg. 17). These means seem efficient, and express clear opportunities for possible replication of intended project.

Sub

Weaknesses:

Factor 2: No weaknesses 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: 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:

Factor 1: The applicant thoroughly and strongly identifies responsible parties for management of proposed plan capable of facilitating and seeing project to fruition. The applicant identifies anticipated areas of personnel needs and clearly explains plan for acquisition. The applicant thoroughly explains the process for building upon existing partnerships that will enable the project to scale locally, regionally, and nationally. Table 2 provides an excellent visual of intended partner involvement (pg. 20). This section thoroughly defined and discussed, as well as providing for information regarding verification and accountability of intended project. (pg. 21).

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 expresses cost effectiveness through the use of various means. The reducing cost relies on the use of technology and providing activities and resources virtually. The minimization of cost will allow for an increased availability to greater populations (pg. 22).

Weaknesses:

Factor 2: The proposed use of virtual dissemination, may weaken the intended purpose of providing high quality intentions. (Hence virtual activities vs hands on activities)

Sub

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:

Factor 3: The project was designed with long term sustainability through the use of already existing infrastructure. The applicant already possesses positive relationships within their local consortium which will provide for continued support beyond grant funding. The applicant identified State efforts that are focused on STEM initiatives, making the project highly sustainable (pg. 22)

Weaknesses:

Factor 3: No weaknesses 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:

Factor 4: Figure 2 (pg. 23) clearly demonstrates a well thought out timeline and identifies the responsibilities for the intended project. The applicant thoroughly provides for understanding of the ability to manage and achieve success for intended project viability.

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 project design provides for clear and thorough evaluation through an external provider (pg. 24) that maintains a percentage of WWC certified reviewers. Table 3 provides appropriate questions for evaluation (pg. 25). The applicant provides for high quality evaluation of proposed project through the use of current partnerships with

Sub

external companies/providers. The evaluation design provides for control and statistical analysis (pg. 26-27).

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 clearly identifies the 2 key components of intended project. The proposal offers excellent regarding threshold and data source through the use of Table 4 (pg. 27-28). The proposal provided very clear and well-defined intended purposes of implementation.

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: Table 5 (pg. 29) provides for detailed information regarding outcome measures. The applicant provides a well-defined and cohesive collection of data to support relevant outcomes.

Weaknesses:

Factor 3: No weaknesses noted

Reader's Score: 5

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

Status: Submitted

Last Updated: 08/03/2020 01:27 PM

Technical Review Coversheet

Applicant: Niswonger Foundation (S411B200035)

Reader #5: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	10	8
Quality of Project Design		
1. Quality of Project Design	25	19
Sub Total	35	27
Scaling		
Strategy to Scale		
1. Scaling	20	17
Sub Total	20	17
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	25	20
Sub Total	25	20
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	20	18
Sub Total	20	18
Total	100	82

Technical Review Form

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

Reader #5: *****

Applicant: Niswonger Foundation (S411B200035)

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: 8

Sub

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

Strengths:

- This project persuasively presents two critical needs for STEM education in the rural area: quality STEM curriculum and highly qualified teachers.
- It proposes to provide curriculum supplemental materials for strong student engagement and professional development (PD) for teachers.
- The application proposes to scale up and complement the work of the NF 2010-2015 i3 scale-up grant (HS college- and career-ready) and the ongoing Rural LIFE project based on interventions that produced moderate evidence of the effects on teacher's content knowledge, curriculum supplemented with additional materials, OST opportunities, and dual enrollment courses.

Weaknesses:

- The application proposes to scale up and complement the work of the NF 2010-2015 i3 scale-up grant (HS college- and career-ready) and the ongoing Rural LIFE project. However, little information is provided to understand the features and characteristics of those grant projects.
- Insufficient information is provided to understand how and what kinds of components would be integrated in the development of the proposed project from the previous intervention and project mentioned above.

Reader's Score: 8

Selection Criteria - Quality of Project Design

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

Reader's Score: 19

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 project goals, objectives, outcomes, target outcomes are well described. Table 1 on page 8-9 presents four project goals and objectives with activities for the objectives. Also, target outcomes of the project are presented with specific standards to achieve. Table 4 on pages 27-28, and Table 5 on page 29 provide specific outcome measures.

Weaknesses:

- Insufficient information is provided to understand the specific contents and implementation procedures of the objectives and activities in Table 1 on page 8.

Reader's Score: 8

- 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 application appropriately addresses the needs of the target population and describes main project goals and objectives - improvement of student achievements on math and science and school climate.

- The theory of action on page 4 looks reasonable with actions to take, intermediate outcomes and long-term outcomes.

Weaknesses:

- The overall approach of the project looks reasonable. However, without detailed information about the features and implementation procedures of the project, it is difficult to assess whether the design of the proposed project is appropriate to, and will successfully address, the needs of the target population.

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 improvement community (networks of practitioners and researchers and three working groups) is likely to be helpful to implement and sustain the project coherently and in high quality.

Weaknesses:

- Insufficient information is provided to understand the details of the actions presented in the theory of action on page 4.

Reader's Score: 4

Sub

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 improvement community with working groups is likely to increase efficiency in the use of teachers' time and productivity in the project.

Weaknesses:

- Insufficient information is provided to assess whether the project will improve the efficiency of staff time, money and other resources.

Reader's Score: 4

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: 17

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 application identifies two key barriers to STEM education – student access to rigorous STEM courses, lack of trained instructors and adequate resources.
- It proposes providing rigorous coursework and career experiences to address the barriers through (1) strengthening the teaching/learning classroom experiences with engaging materials for students and professional development for teachers; (2) experiential out-of-school time opportunities to explore STEM content; (3) expanding participation in rigorous STEM and dual enrollment courses.

Weaknesses:

- The strategies proposed to address the barriers are not detail enough to evaluate whether the barriers can be successfully overcome.

Reader's Score: 9

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

Strengths:

- It proposes to publish annual public reports, with special reports on key findings to be crafted more regularly. Along with publishing those online, the applicant proposes to actively seek out in-person and online opportunities - including conferences and webinars - where information can be shared with interested parties.

Sub

Weaknesses:

- The dissemination activities could be more specific and detailed (e.g., the frequency of the dissemination activities, number of target audience, etc.).

Reader's Score: 8

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: 20

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 prime applicant and the partners have significant experiences in scaling and managing large, federal grant projects, including a 2010 i3 grant and a current EIR grant.

Weaknesses:

- Little information is provided how to coordinate the multiple partners.

Reader's Score: 8

- 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 overall budget looks reasonable and is within the range of ED's expectation.
- The budget narrative with the responsibilities of key personnel and budget supplements are comprehensive.

Weaknesses:

- It is unclear how the staff hours were estimated.

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.**

Sub

Strengths:

- The applicant proposes to build online infrastructure that will continue beyond the grant period, similar to the online platform it created for its 2010 i3 grant.
- The application expects that the region's school systems participating in the i3 legacy programs will be leveraged to provide continuous school level support for the project after federal funding ends.

Weaknesses:

- No information is provided whether additional funds will be necessary to sustain and expand the project, and if necessary, how they will be raised.

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:

- Table 2 on page 20 clearly shows the project components and responsible partner for each of the component.
- The project components and activities with the responsibilities and timeline are well presented on page 23.

Weaknesses:

- The application does not include an organizational chart or descriptions showing the responsibilities of the key personnel and their relationships.

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: 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 evaluation is highly likely to produce evidence about the project's effectiveness that would meet WWC standards without reservations as described in the WWC Handbook.
- A RCT for middle schools and a QED for high schools look reasonable for the project.

Sub

- The expecting sample size is quite large, 86 middle schools with approximately 500 teachers and 8,000 grade 6 students for the RCT. It will satisfy the requirements for a large (includes more than 350 students) and multi-site (multiple districts, with multiple schools and teachers in each district) sample, as laid out in the expectations for EIR mid-phase evaluations.
- The QED plan for high school students is proposed with key components, measures with reliability information, data collection timeline, and baseline measures.

Weaknesses:

- The QED sample size of schools and students for high schools is not provided.

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:

- On pages 25-26, the outcome measures are clearly presented with research questions for each of the outcome measures.
- The key components of evaluation with indicators, thresholds, and data sources for each of the components are clearly presented in Table 4 on pages 27-28.

Weaknesses:

- Insufficient information is provided to understand the detailed implementation of the evaluation plan.

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 application proposes to have an external party conduct the evaluation to maintain the evaluation objectivity. The external party has substantial experience in the evaluation of EIR grant projects.
- The evaluation will be conducted for years 3-4 to assess the long-term effects, after the first two years of the intervention implementation.
- The results of the power analysis calculation look good, with the assumed between-school variance of .20, power of .80, alpha level of .05, and MDE of .216.
- The procedure for establishing baseline equivalence for QED with high schools is well described with outcome measure domains, measures, reliabilities of the measures, time of outcome data collection, and baseline measures (see Table 5 on page 29).

Sub

Weaknesses:

None noted.

Reader's Score: 5

Status: Submitted

Last Updated: 08/03/2020 01:27 PM