

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

Status: Submitted

Last Updated: 07/10/2018 12:49 PM

Technical Review Coversheet

Applicant: Harmony Public Schools (U411B180014)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	10
Strategy to Scale		
1. Strategy to Scale	30	30
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	30
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Total	100	70

Technical Review Form

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

Reader #1: *****

Applicant: Harmony Public Schools (U411B180014)

Questions

Selection Criteria - Significance

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

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

The research is clear, the earlier the exposure and appreciation of STEM-related courses such as science and math, the more the interest will persist through higher grades, with the student being more likely to pursue a post-secondary STEM degree (page, 11). The project is significant; it is addressing a gap at the elementary-level. The magnitude and severity of the problem is related to three facts as cited by the applicant using statistics from reliable sources. First, the number of STEM-related careers is expected to increase significantly over the next decade. Secondly, the number of qualified STEM applicants who are Americans citizens is low. Thirdly, the proportion of STEM qualified blacks and Hispanics is low in comparison with whites (page, 4). The national significance of the proposed project is also related to these same statistics, and if the project is implemented with fidelity, it can serve as a model for other states in the United States of America. The core of the project is to extend the already successful project based learning STEM curriculum/model at the 6th-12th grade level to the elementary grades.

Weaknesses:

The applicant did not provide the specific details related to the curriculum/model, because it has not yet been developed. As noted in the project deliverables, they applicant will be selecting partners to develop the K-5 STEM curriculum (page, 20). Without having these details, the extent to which this project represents an exceptional approach cannot be adequately assessed at this time.

Reader's Score: 10

Selection Criteria - Strategy to Scale

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

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) 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.
- (3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

The applicant cited three facts to support the unmet demand for this project, most notably, that there are more than 24,000 students on the waitlist to attend their STEM-based schools (page, 10). In addition, more than 10,000 students in eight different states are using this applicant's STEM model designed for grades 6-12. The specific identified barrier is related to the lack of qualified teachers at the elementary level to implement STEM-related curricula. The teachers at this level were not required to engage in high-level math and science during their undergraduate years, and they report a high-level of anxiety with math. Needless to say, if the teachers do not have the skills and confidence to teach the material, there can be a detrimental effect as these signals may be unintentionally transferred to their students (page, 12). The applicant identified three appropriate strategies to address the lack of skills and confidence (page, 13-14). One of the strategies is to launch a professional development institute for elementary teachers to focus on PBL and STEM. The institute will expose the teachers to university and industry partners, so teachers can develop a real-world understanding of the STEM topics they may be teaching. In addition, the teachers will have learning modules, where they can earn micro-credentials associated with STEM-teaching (page, 13). Replication should not be a concern, the applicant has already demonstrated the ability to replicate, more than 10,000 students across 10 districts in eight states are already currently using the STEM-model for the grades of 6-12th (page, 15).

This criterion was thoroughly discussed and my score reflects my professional assessment of this section.

Weaknesses:

There were no weaknesses identified.

Reader's Score: 30

Selection Criteria - Quality of the Project Design and Management Plan

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

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**
- (2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.**

Strengths:

The applicant on (page 17-18) provided objectives and outcomes. The applicant provided the qualifications and experience of the project lead and key personnel assigned to this grant (see Appendix). In reviewing the résumés, the qualifications and experiences of these key personnel are appropriate based on the number of years cited and previous work experience cited by the applicant. The applicant has a continuous process improvement plan, with sufficient specific details (page, 21-23). It was clear what type of formative data will be used for the purpose of evaluating implementation fidelity, and for the purposes of iteratively improving the project throughout the grant period. The applicant already has in place a sophisticated data dashboard system which synthesizes multiple data sources. In addition, the frequency for which the data will be reviewed with key members of the team is acceptable (page, 22). There will be quarterly meetings to review the data related to the progress of the project, investigate any triggered issues, and make any corrections as necessary. The applicant referenced a match budget and private philanthropy planned for extending the project beyond this grant; this is an acceptable sustainability plan (page, 23).

Weaknesses:

The applicant goals, objectives and outcomes were not clearly specified and measurable. There were no goals provided, and the outcomes were not all objectively measurable. One such outcome example from this application is "increases in teacher effectiveness in STEM instruction." This outcome cannot be objectively assessed by the evaluator to determine if it was met. It was not clear how the applicant will ensure objectives will be met on time and within budget. Another area of concern was the amount of time the key personnel will be assigned to this grant. The FTE for these key positions was not provided, without this information it is difficult to determine if the time will be sufficient and provide the needed reasonable resources for this grant.

Reader's Score: 30

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

(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).

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

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

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

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Status: Submitted
Last Updated: 07/10/2018 12:49 PM

Status: Submitted

Last Updated: 07/10/2018 01:47 PM

Technical Review Coversheet

Applicant: Harmony Public Schools (U411B180014)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	0
Strategy to Scale		
1. Strategy to Scale	30	0
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	0
Quality of the Project Evaluation		
1. Project Evaluation	20	16
Total	100	16

Technical Review Form

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

Reader #2: *****

Applicant: Harmony Public Schools (U411B180014)

Questions

Selection Criteria - Significance

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

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Selection Criteria - Strategy to Scale

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

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) 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.
- (3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Selection Criteria - Quality of the Project Design and Management Plan

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

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
- (2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

- (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).
- (2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.
- (3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.
- (4) 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 research design will consist of a randomized control trial with a stratified random sample of schools. If well conducted the research should quality for meeting WWC Standards without reservations.

The evaluation will produce both formative and summative results, gathering data from teachers and students.

The extent to which strict fidelity to the designed intervention is required for successful outcomes and whether subgroups of students manifest differential results will be assessed. Additionally, a cost-benefit analysis will be conducted. These results will assist potential adopters of this program to make informed decisions concerning its appropriateness for their LEA.

A number of measures, including some standardized instruments, have been identified to be employed. The proposed measures have face validity.

Objectives, goals, outcomes, and measures are clear, appropriate, and measurable.

Weaknesses:

Formative evaluation results will be shared with program staff biannually (pgs. 22 & 29). Getting these results only once every two years is insufficient to implement mid-course corrections and refinements in the intervention.

Since not all published measures have acceptable reliability, the application would have been strengthened by providing the internal reliabilities of the standardized measures.

A measurable threshold for acceptable implementation is not addressed.

Reader's Score: 16

Status: Submitted

Last Updated: 07/10/2018 01:47 PM

Status: Submitted

Last Updated: 07/12/2018 05:29 PM

Technical Review Coversheet

Applicant: Harmony Public Schools (U411B180014)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	10
Strategy to Scale		
1. Strategy to Scale	30	27
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	26
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Total	100	63

Technical Review Form

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

Reader #3: *****

Applicant: Harmony Public Schools (U411B180014)

Questions

Selection Criteria - Significance

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

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

- 1) This project provides a clear focus on the magnitude to target disadvantaged populations engaging with math and science. This study will launch elementary academic foundation to STEM deepening personalized learning through a Project Based Learning approach for middle and high school students in the Harmony system. This project will achieve three strategies that build elementary teachers' competence and confidence in delivering high-quality STEM instruction (pg.2).
- 2) The application stresses the national significance of the proposal to introduce a systemic approach to STEM education that engages teachers and diverse student populations across the K-12 continuum. The project leads to exciting outcomes for students, educators, and the economy. This project will deploy three primary strategies (supporting curriculum, professional development, and in-school support for teachers) for change anchored by a focus on standards-aligned, hands-on, inquiry-based instruction in math and science that extend to the elementary years (pg.5).

Weaknesses:

- 3) The applicant provided exceptional approaches though lacked clarity and alignment of Harmony's PBL approach and secondary success of STEM. In addition, an in-depth description or explanation on how the project prioritizes the PBL infrastructure needed to successfully execute the project.

Reader's Score: 10

Selection Criteria - Strategy to Scale

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

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) 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.
- (3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

- 1) The project demonstrates an unmet demand to produce a broad, diverse, and capable group of students who more frequently pursue STEM postsecondary studies and careers. The project proposed scaling up by developing a high-quality set of STEM-focused curricular materials that can be used by elementary schools across the country and demonstrate an innovative, system-wide, multi-stakeholder STEM professional development and mentoring program that supports the development of PBL instruction.
- 2) The applicant addresses specific barriers that may impact the project such as improving STEM instruction at the elementary school level. This proposal's goal is to increase the quality of STEM instruction as the large gaps in teacher competence and confidence on STEM are significant barriers to succeed at scale. Harmony mentioned three key components of LEAF to STEM to scale high-quality STEM instruction in elementary schools, page 13 provides an elaborate explanation of the strategies.
- 3) The applicant addresses an eighteen-year history of strong growth and refining successful initiatives such as curriculum and data management systems.

Weaknesses:

- 3) As the applicant mentions great growth of successful initiatives, the goals of a successful replication were not elaborated. The applicant lacked clarity and alignment of successful replication of the development approach and the changes across the system (pg.14).

This criterion was thoroughly discussed and my score reflects my professional assessment of this section.

Reader's Score: 27

Selection Criteria - Quality of the Project Design and Management Plan**1. In determining the quality of the proposed project design, the Secretary considers the following factors:**

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**
- (2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.**

Strengths:

- 1) Harmony management plan is grounded in a commitment to excellence and on deep experiences executing and managing a STEM initiative in 14 diverse schools for over a decade. The outputs and objectives are provided and show specific outcomes that can be attainable (page 18).
- 2) Harmony has mapped roles, responsibilities, and decision-making authorities across the network's central office, district offices, and individual campuses that will contribute to the project success. The management plan coordinates activities to measure and assess progress against outcomes. The defined responsibilities are provided for accomplishing project tasks (pg.18). A timeline and milestones are described on page 20.

3) Harmony emphasizes continuous feedback and improvement using actionable data on the project progress by using a dashboard to measure the implementation and outcomes of STEM curriculum in grades 6-12. In addition, reviewing implementation evidence, collaboration, and improving the scaling strategies to track progress and continuous improvement.

Weaknesses:

1) As the Appendix G (pg.18) provides a summary of collection procedures, data sources, and analysis the measures are general and too broad.

4) Ongoing work and feedback are provided on page 23 however, a stronger connection with the on-going work and how Harmony will incorporate the EIR work would have been appropriate.

Reader's Score: 26

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

(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).

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

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

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

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

Status: Submitted
Last Updated: 07/12/2018 05:29 PM

Status: Submitted

Last Updated: 07/10/2018 10:27 AM

Technical Review Coversheet

Applicant: Harmony Public Schools (U411B180014)

Reader #4: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	0
Strategy to Scale		
1. Strategy to Scale	30	0
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	0
Quality of the Project Evaluation		
1. Project Evaluation	20	16
Total	100	16

Technical Review Form

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

Reader #4: *****

Applicant: Harmony Public Schools (U411B180014)

Questions

Selection Criteria - Significance

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

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Strategy to Scale

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

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) 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.
- (3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Project Design and Management Plan

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

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
- (2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

- (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).
- (2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.
- (3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.
- (4) 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 evaluation proposes a rigorous research design (randomized control trial) along with a stratified random sampling to ensure the treatment and control group are representative of Harmony Public Schools as a whole (p. 24). A random number generator will be used to assign 50% of the campuses to the treatment group and 50% to the control group (p. 25). Both the research design and sampling technique meet the WWC standards without reservations requirements.

The project evaluation provides clearly articulated evaluation questions addressing fidelity of implementation and project impact aligned to data sources, and data collection and analysis (p. 7-10 in Appendix G). Additionally, the key project outcomes and mediators are provided (p. 26-27).

The project evaluation addresses the extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings (p. 14-16).

The project evaluation provides the detailed results of the power analysis assessing for minimum sample sizes and detectable effect sizes to adequately assess program impact (p. 25).

The project evaluation proposes a plan to determine baseline equivalence and will use the WWC baseline equivalence standards to make statistical adjustments (p. 30). Additionally, the WWC optimistic attrition threshold will be used to calculate overall attrition and differential attrition of the project (p. 30).

The project evaluation provides a description of “how” the evaluators plan on assessing the implementation of the project to include methods of quantitative and qualitative data collection and analysis. Multiple methods of data collection (surveys, observations, interviews, and extant district data) will be used to adequately assess the fidelity of implementation and impact of the program (p. 27-29).

The project evaluation proposes to utilize pre-existing validated instrumentation to collect student and teacher data that will provide valid and reliable data on relevant outcomes to the project (p. 27-28).

Weaknesses:

Although the project evaluation provides a section titled Cost Effectiveness Analysis and claims to conduct one, the evaluation does not provide a plan as to “how” the evaluators will specifically address the cost effectiveness analysis for scale-up and sustainability of the project (p. 30).

The project evaluation proposes to share the results of the formative evaluation with the Harmony Public Schools program staff biannually (p. 27). In order to assess for fidelity of implementation and make the necessary adjustments to the program utilizing feedback obtained from these reports, reports should be provided to the program staff more frequently throughout.

The project evaluation does not provide measurable thresholds for acceptable implementation of the project.

Although the project evaluation states the intervention is not expected to affect attrition, the evaluation does provide a plan for “how” it will address attrition issues should they arise (p. 30).

Reader's Score: 16

Status: Submitted
Last Updated: 07/10/2018 10:27 AM

Status: Submitted

Last Updated: 07/11/2018 10:30 AM

Technical Review Coversheet

Applicant: Harmony Public Schools (U411B180014)

Reader #5: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	8
Strategy to Scale		
1. Strategy to Scale	30	20
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	32
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Total	100	60

Technical Review Form

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

Reader #5: *****

Applicant: Harmony Public Schools (U411B180014)

Questions

Selection Criteria - Significance

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

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

- 1) The proposal describes the growth of high-paying STEM jobs in the U.S., yet there is a lack of diversity in those who have access to those careers (p. 4). Texas lags behind the rest of the nation in terms of degree attainment, including in science and engineering bachelor's degrees (p. 4).
- 2) The project has potential for success, based on research on the strategies that will be used in teacher PD (p. 7). The applicant has an Innovation Department, which will disseminate the work of the project to potentially 10 districts in 8 states (p. 9).
- 3) The project will expand an existing curriculum that has been successful at middle and high school to K-5 (pp. 2, 7). The curriculum is STEM-focused, and incorporates project based learning, and personalized learning (p. 2).

Weaknesses:

- 1) The proposal does not make a convincing argument for the need for the project in Harmony. Harmony already has a good record of producing STEM-prepared high school graduates. The proposal cites data that the elementary program is not as strong as the secondary program, but it's not clear how this relates to students across the state (p. 4).
- 2) It is not clear how the proposed activity will have national significance. The proposal does not make the connection between the project, focused on K-5 STEM, and the national needs outlined, such as increasing diversity in STEM careers. The proposal does not describe how the population of students attending Harmony represents diverse groups or underserved populations.
- 3) The description of personalized learning is vague. It's also not clear that the teachers and students in the school system are in need of this project.

Reader's Score: 8

Selection Criteria - Strategy to Scale

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

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) 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.

(3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

1. Harmony has experienced family demand for its schools, with over 24,000 students on a waitlist to attend the schools. There is also external demand for the schools' resources, as 10 districts in 8 states use the existing grades 6-12 STEM SOS curriculum (p. 10). Further, there is a general need for teacher resources to support elementary STEM instruction (p. 10).
2. The elementary schools in the district do not use PBL yet (p. 11), and the project will develop PD focused on PBL for these teachers (p. 13). In general, research shows a need to develop elementary teacher STEM competence and confidence (p. 12). For example, elementary teacher preparation programs require only two mathematics and science courses, and only 39% of elementary teachers report feeling very well prepared to teach science (p. 11).
3. The district has successfully executed similar projects and has a strong network of support within the district (p. 14). Harmony has also disseminated successful practices to districts in 8 other states, and there is evidence that these practices have resulted in improved student outcomes in other districts (p. 15).

Weaknesses:

1. The proposal does not describe an unmet demand for K-5 curricula, which is the focus of this project.
2. Although the elementary schools have not started using PBL, it's not clear why they have not and why this project is necessary to change that. The barriers described in the proposal are general challenges that elementary teachers faced and the general need for STEM content PD, but the statement that "gaps in teacher competence and confidence in STEM have been past barriers to scale" (p. 14) is not justified in the proposal with data or anecdotes. It is not clear that the applicant has encountered these barriers in the past.
3. The proposal does not describe the diversity of the states, schools, or students that it shares practices with, so it is not clear whether the project could be replicated with a variety of populations and settings.

This criterion was thoroughly discussed and my score reflects my professional assessment of this section.

Reader's Score: 20

Selection Criteria - Quality of the Project Design and Management Plan

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

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

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

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

(4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.

Strengths:

- 1) The objectives, outputs, and outcomes are aligned and clearly laid out in the logic model (p. 17). The outcomes are focused on teacher and student outcomes, each of which are measurable and described in more detail on p. 18 and in

Appendix G. The outcomes make sense in relation to the outputs and the objectives. Several data sources are described for each group affected (teachers, students, national).

2) The roles are divided in a way that makes sense, and includes central office, district office, and campus leader support (p. 18). The table with milestones is clear and includes activities aligned to each objective, with key personnel and timing for each item (pp. 20-21).

3) The proposal describes their use of dashboards to measure implementation and outcome of their high school project, and describes how the dashboards can be used in elementary schools (p. 22). The proposal also has an adequate plan to meet regularly to review data and make continuous improvement: A committee of relevant stakeholders will meet quarterly to review data, troubleshoot issues, and make course corrections. After these meetings, district-level meetings will occur in which information will be shared with district leaders, and these leaders will meet with principals to review data and make adjustments (pp. 22-23).

4) The proposal makes it clear that the project outcomes will be incorporated into the work of Harmony. The success and sustainability of the secondary PBL program lends credibility to the expectation of integrating the curriculum into the ongoing work of the K-5 schools. Financial stability is considered and the applicant plans to use state funds and private philanthropy, with fundraising described in the budget (p. 23).

Weaknesses:

1) The proposal does not describe goals of their project, which should be at a higher level than the objectives.

2) The management plan assigns tasks to the Project Director, Director of Elementary Curriculum, Director of Mentorship, Director of Academic Innovation, and Director of Evaluation -- yet only the Project Director is named and described (p. 19), and is the only personnel listed in the management plan for whom partial salary is allocated in the budget narrative. The project narrative also names and describes the duties of the Project Manager, and the budget includes the salary allocation for this role, but the duties of this position are not described in the management plan (pp. 20-21). More clarity around roles, assignments, and time/salary expectations are needed to ensure that the key personnel will be able to meet the objectives on time.

3) Teacher and school feedback is only planned to be collected once per year, which does not seem often enough, particularly during the development and first year of implementation (p. 23).

Reader's Score: 32

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

(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).

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

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

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

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: **0**

Status: Submitted

Last Updated: 07/11/2018 10:30 AM