

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

Status: Submitted

Last Updated: 09/19/2013 09:40 AM

Technical Review Coversheet

Applicant: Sonoma State University (U411C130090)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Summary Statement		
Summary Statement		
1. Summary Statement	0	
Selection Criteria		
Significance		
1. Significance	35	33
Quality of Project Design		
1. Project Design	25	24
Quality of the Management Plan		
1. Management Plan	15	10
Quality of Project Personnel		
1. Personnel	10	10
Quality of the Project Evaluation		
1. Project Evaluation	15	0
Total	100	77

Technical Review Form

Panel #8 - i3 Development - 8: 84.411C

Reader #1: *****

Applicant: Sonoma State University (U411C130090)

Questions

Summary Statement - Summary Statement

1. Summary Statement (Optional)

General:

Reader's Score:

Selection Criteria - Significance

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

(1) The extent to which the proposed project would implement a novel approach as compared with what has been previously attempted nationally.

(2) The potential contribution of the proposed project to the development and advancement of theory, knowledge, and practices in the field of study.

(3) The extent to which the proposed project will substantially improve on the outcomes achieved by other practices, such as through better student outcomes, lower cost, or accelerated results.

Strengths:

The applicant provided specific aims of the project supported by project needs (Table 2, p.6) and substantiated by recent literature in support of the novel approach of computational thinking within the STEM courses aligned with the New Generation Science Standards and the Common Core Standards, which underlined a strong case for meeting its goals. The proposed project integrates a community of practice with teacher professional development and the academic needs of the targeted population, which are aligned with University (California State University and University of California, p. 7) requirements. The proposed project seeks to advance the theory, knowledge and practice in the STEM fields by increasing student's "mathematical proficiency" underlined by the "integration of computational thinking," through a redesigned curriculum aligned with the New Generation Science Standards and the Common Core Mathematics Standards. This STEM curriculum redesign and alignment with national science and mathematics standards with computational thinking supports the applicant's ability to have a broader impact for communicating a streamline process for a community of practice between the teaching of secondary (high school) STEM courses and STEM careers at the post-secondary level and sets the foundation for the project to be successful in having the proposed impact.

Weaknesses:

The applicant expects to increase students' mathematics/science skills; however, no information provided as to how the proposed expectation will serve as an exemplar in terms of quantifying the broader impact of the project. That is, for a project of this magnitude, how will the expected outcomes (e.g., increase in students' mathematics and science proficiency) make a significant and sustainable contribution to similar populations as those served by the proposed project-- extent to which the proposed project will make a case for using the proposed strategies outline in the project as better student outcomes, lower cost, or accelerated results.

Reader's Score: 33

Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

(2) The clarity and coherence of the project goals, including the extent to which the proposed project articulates an explicit plan or actions to achieve its goals (e.g., a fully developed logic model of the proposed project).

(3) The clarity, completeness, and coherence of the project goals, and whether the application includes a description of project activities that constitute a complete plan for achieving those goals, including the identification of potential risks to project success and strategies to mitigate those risks.

Strengths:

The applicant provides a logic model (p. 10), which outlines the logical linkage to input/output/outcomes, as well activities and participants in support of the underlying assumptions of the proposed needs of the targeted population -- highlights the internal and external influences related to the anticipated changes: short outcomes (knowledge, skills), medium outcomes (behavior, practices), and long outcomes (situation and economic conditions) as a result of the targeted population's participation in the proposed project. In addition, the applicant provides a list of anticipated risks associated with project implementation, as well as the measures for mitigating such risks (p. 14), which correlates to the Priority 3 and 8 in relation to improving the mathematics and science proficiency of high needs students from rural

Weaknesses:

While the applicant provided a logic model provided direct linkages to structure of the proposed project, more details about each activities could have been provided in order to strengthened the proposal.

Reader's Score: 24

Selection Criteria - Quality of the Management Plan

1. In determining the quality of the management plan and personnel for the proposed project, the Secretary considers the following factors:

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The extent of the demonstrated commitment of any key partners or evidence of broad support from stakeholders whose participation is critical to the project s long-term success.

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

Strengths:

The applicant demonstrates that the project is feasible in terms of key responsibilities needed for monitoring the operation of the project (e.g., professional development schedule) with a tentative outline of when activities will be completed (Table 6, p. 16) and a project schedule (Figure 3, pg. 17), which highlights the resources needed to monitor the implementation

of the project.

Weaknesses:

The applicant did not provide detailed information about the different project components that will be accessed on an on-going basis in regards to: (1) quality of the results attained, (2) success of the professional development, and (3) fidelity with which teachers will implement the program, and (4) development of the non-technical aspects of the project. In short, how will the annual performance targets be accessed and how will the results be used for feedback and continuous improvement of the proposed project.

Reader's Score: 10

Selection Criteria - Quality of Project Personnel

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

Strengths:

The applicant's staff plan identifies the staff required and the tentative role of each staff/advisory board member to be funded by the project, which correlates with the budget categories/narrative for personnel. The applicant was specific about staff assigned to roles and/or new positions necessary to execute the project with matching skills/experiences to ensure a successful project completion—proposed staff is highly qualified to implement the proposed project.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

Selection Criteria - Quality of the Project Evaluation

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

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.

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

Strengths:

N/A-scored by another reviewer

Weaknesses:

N/A-scored by another reviewer

Reader's Score: **0**

Status: Submitted

Last Updated: 09/19/2013 09:40 AM

Status: Submitted

Last Updated: 09/23/2013 11:55 AM

Technical Review Coversheet

Applicant: Sonoma State University (U411C130090)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Summary Statement		
Summary Statement		
1. Summary Statement	0	
Selection Criteria		
Significance		
1. Significance	35	32
Quality of Project Design		
1. Project Design	25	24
Quality of the Management Plan		
1. Management Plan	15	9
Quality of Project Personnel		
1. Personnel	10	10
Quality of the Project Evaluation		
1. Project Evaluation	15	0
Total	100	75

Technical Review Form

Panel #8 - i3 Development - 8: 84.411C

Reader #2: *****

Applicant: Sonoma State University (U411C130090)

Questions

Summary Statement - Summary Statement

1. Summary Statement (Optional)

General:

Reader's Score:

Selection Criteria - Significance

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

(1) The extent to which the proposed project would implement a novel approach as compared with what has been previously attempted nationally.

(2) The potential contribution of the proposed project to the development and advancement of theory, knowledge, and practices in the field of study.

(3) The extent to which the proposed project will substantially improve on the outcomes achieved by other practices, such as through better student outcomes, lower cost, or accelerated results.

Strengths:

- The fusion of math, science, and Logo computational thinking described in this proposal goes above and beyond what is traditionally attempted nationally, resulting in a novel approach to improving students' outcomes.
- Another novel concept that this proposal presents is the teacher's role as an "intellectual agent," learning and solving problems alongside the student, instead of being the main disseminator of information.
- Because this proposal uses the Next Generation Science Standards and Common Core as the main components of its curriculum, it has the potential for widespread application in other districts.
- Aside from a potential strategy to improve student math and science outcomes, this proposal will contribute to research in fields that are currently lacking, such as the role of computational thinking on STEM outcomes, and the effectiveness of integrated curricula. As such, this proposal thoughtfully discusses how its components will be assessed in order to provide the most valuable contribution possible to the field.
- A strength of this project is the component of streamlining the math and science curricula among all the partner high schools, thereby creating communities of practice among teachers that do not currently exist, as these high schools have their own curricula at present.

- Because it is designed with UC/CSU entrance criteria in mind, is backed by research, and includes the components of a novel curriculum delivered as a result of high quality professional development and a community of practice, this proposal provides strong evidence for its predicted increase in students' science and math scores.

Weaknesses:

- It would have strengthened the proposal to have included other measures of quantified outcomes, such as the predicted increase in students' STEM interest and pursuance of STEM studies and/or careers, the predicted increase in students' math SAT scores as a result of this project, or other measures that would paint a strong picture of this proposal's impact, other than just the scores on the state science and math tests, which are often not rigorous assessment tools.

Reader's Score: 32

Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

(2) The clarity and coherence of the project goals, including the extent to which the proposed project articulates an explicit plan or actions to achieve its goals (e.g., a fully developed logic model of the proposed project).

(3) The clarity, completeness, and coherence of the project goals, and whether the application includes a description of project activities that constitute a complete plan for achieving those goals, including the identification of potential risks to project success and strategies to mitigate those risks.

Strengths:

- As a result of redesigning the curriculum to include math, science, and technology, and with its focus on rural schools, this proposal clearly addresses the absolute priority.
- The project's goals are clearly and concisely laid out in the table on page 8.
- The proposal describes the project's activities in chronological order, including the major steps that teachers, students, and schools will undergo.
- The proposal outlines several risks on page 14 associated with every aspect of the project, from teacher and

student issues to regional logistics, and includes strategies for mitigating those risks.

Weaknesses:

- It would have strengthened this proposal to have included more detail in the “Activities” section of the Logic Model, in addition to the three general activities that are listed there.

Reader's Score: 24

Selection Criteria - Quality of the Management Plan

1. In determining the quality of the management plan and personnel for the proposed project, the Secretary considers the following factors:

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The extent of the demonstrated commitment of any key partners or evidence of broad support from stakeholders whose participation is critical to the project's long-term success.

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

Strengths:

- The proposal includes a clear schedule of the project's major components over the next few years.
- The proposal contains evidence of support from many of the key partners, including the superintendents of the partner schools and the evaluators.
- On page 14, the proposal clearly lists the key responsibilities for ensuring the project meets its performance targets, for organizing PD, and for technical design.

Weaknesses:

- It would have strengthened the proposal to have included the annual performance targets that will be used to monitor the project's success.
- It would have strengthened the proposal to have included the metrics that will be used to assess the progress of all the facets of the proposal on an ongoing basis, including the quality of the products that are being created, the success of the professional development activities, the fidelity with which teachers are implementing the curriculum, the extent to which student performance is being affected, participation in and effectiveness of the online communication component for the community of practice, etc.
- The proposal would have been strengthened by more details concerning the development of the non-technological aspects of the curriculum, and who the staff members responsible for that are.

- The proposal mentions that feedback will be obtained through PD sessions and classroom visits, but it would have strengthened the proposal to have included the specific strategies that will be implemented to consistently record feedback in a streamlined way so that institutional wisdom can be captured and used to improve existing practices.

Reader's Score: 9

Selection Criteria - Quality of Project Personnel

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

Strengths:

- The program is staffed by highly qualified and experienced personnel whose experience aligns to the project's goals.

Weaknesses:

- No weaknesses were noted.

Reader's Score: 10

Selection Criteria - Quality of the Project Evaluation

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

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.

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

Strengths:

Scored by another reviewer

Weaknesses:

Scored by another reviewer

Reader's Score: 0

Status: Submitted

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Status: Submitted

Last Updated: 09/23/2013 09:57 AM

Technical Review Coversheet

Applicant: Sonoma State University (U411C130090)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Summary Statement		
Summary Statement		
1. Summary Statement	0	
Selection Criteria		
Significance		
1. Significance	35	0
Quality of Project Design		
1. Project Design	25	0
Quality of the Management Plan		
1. Management Plan	15	0
Quality of Project Personnel		
1. Personnel	10	0
Quality of the Project Evaluation		
1. Project Evaluation	15	15
Total	100	15

Technical Review Form

Panel #8 - i3 Development - 8: 84.411C

Reader #3: *****

Applicant: Sonoma State University (U411C130090)

Questions

Summary Statement - Summary Statement

1. Summary Statement (Optional)

General:

Reader's Score:

Selection Criteria - Significance

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

(1) The extent to which the proposed project would implement a novel approach as compared with what has been previously attempted nationally.

(2) The potential contribution of the proposed project to the development and advancement of theory, knowledge, and practices in the field of study.

(3) The extent to which the proposed project will substantially improve on the outcomes achieved by other practices, such as through better student outcomes, lower cost, or accelerated results.

Strengths:

Section scored by another reviewer

Weaknesses:

Section scored by another reviewer

Reader's Score: 0

Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

(2) The clarity and coherence of the project goals, including the extent to which the proposed project articulates an explicit plan or actions to achieve its goals (e.g., a fully developed logic model of the proposed project).

(3) The clarity, completeness, and coherence of the project goals, and whether the application includes a description of project activities that constitute a complete plan for achieving those goals, including the identification of potential risks to project success and strategies to mitigate those risks.

Strengths:

Section scored by another reviewer

Weaknesses:

Section scored by another reviewer

Reader's Score: 0

Selection Criteria - Quality of the Management Plan

1. In determining the quality of the management plan and personnel for the proposed project, the Secretary considers the following factors:

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The extent of the demonstrated commitment of any key partners or evidence of broad support from stakeholders whose participation is critical to the project's long-term success.

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

Strengths:

Section scored by another reviewer

Weaknesses:

Section scored by another reviewer

Reader's Score: 0

Selection Criteria - Quality of Project Personnel

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

Strengths:

Section scored by another reviewer

Weaknesses:

Section scored by another reviewer

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

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

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.

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

Strengths:

- WestEd will serve as the independent evaluator, and the lead evaluator is very experienced in carrying out evaluations of this scope and size.
- On page 21, the proposal listed clearly four research goals in the evaluation plan.
- The first two goals are related to formative evaluation, the third goal is related to summative evaluation, and the fourth goal is about scalability.
- For each research goal, key research questions are clear and identified, along with appropriate plan for data collection and analysis.
- Design for evaluation is appropriate to answer the research questions.

Weaknesses:

No weaknesses noted.

Reader's Score: 15

Status: Submitted

Last Updated: 09/23/2013 09:57 AM

Status: Submitted

Last Updated: 09/18/2013 02:26 PM

Technical Review Coversheet

Applicant: Sonoma State University (U411C130090)

Reader #4: *****

	Points Possible	Points Scored
Questions		
Summary Statement		
Summary Statement		
1. Summary Statement	0	
Selection Criteria		
Significance		
1. Significance	35	0
Quality of Project Design		
1. Project Design	25	0
Quality of the Management Plan		
1. Management Plan	15	0
Quality of Project Personnel		
1. Personnel	10	0
Quality of the Project Evaluation		
1. Project Evaluation	15	15
Total	100	15

Technical Review Form

Panel #8 - i3 Development - 8: 84.411C

Reader #4: *****

Applicant: Sonoma State University (U411C130090)

Questions

Summary Statement - Summary Statement

1. Summary Statement (Optional)

General:

Reader's Score:

Selection Criteria - Significance

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

(1) The extent to which the proposed project would implement a novel approach as compared with what has been previously attempted nationally.

(2) The potential contribution of the proposed project to the development and advancement of theory, knowledge, and practices in the field of study.

(3) The extent to which the proposed project will substantially improve on the outcomes achieved by other practices, such as through better student outcomes, lower cost, or accelerated results.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

(2) The clarity and coherence of the project goals, including the extent to which the proposed project articulates an explicit plan or actions to achieve its goals (e.g., a fully developed logic model of the proposed project).

(3) The clarity, completeness, and coherence of the project goals, and whether the application includes a description of project activities that constitute a complete plan for achieving those goals, including the identification of potential risks to project success and strategies to mitigate those risks.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Management Plan

1. In determining the quality of the management plan and personnel for the proposed project, the Secretary considers the following factors:

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The extent of the demonstrated commitment of any key partners or evidence of broad support from stakeholders whose participation is critical to the project's long-term success.

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

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of Project Personnel

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

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

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.

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

Strengths:

- The evaluation plan put forth by this applicant is very well designed and includes excellent details as to how the evaluation will take place. There are specific evaluation goals, both formative and summative, and after each goal is listed, a set of research questions accompanies that goal (pp. 21-23). The questions appear to be on target in relation to the goals, and are specifically tied back to the logic model (p.10).
- The evaluation plan includes both process and outcome goals with appropriate methods presented to evaluate the fidelity of implementation, as well as the program's impact on student performance in math and science (p.24).
- The descriptions of the methodology for the research-based designs are very detailed. They include grounded theory with a rich description of the coding methods to be used in data analysis (p. 23), as well as, descriptive statistics for survey data, and for measuring student outcomes, the use of multi-level models to test their hypotheses, including HLM statistical analysis (p. 25). While not cited, the method described to determine sample size needed to achieve minimal effect size would meet WWC standards.
- The evaluation firm identified to carry out this plan is a highly reputable evaluation firm with the expertise, experience, and resources to conduct an evaluation of this size and scope (p.20).

Weaknesses:

NA

Reader's Score: 15

Status: Submitted
Last Updated: 09/18/2013 02:26 PM

Status: Submitted

Last Updated: 09/20/2013 04:28 PM

Technical Review Coversheet

Applicant: Sonoma State University (U411C130090)

Reader #5: *****

	Points Possible	Points Scored
Questions		
Summary Statement		
Summary Statement		
1. Summary Statement	0	0
Selection Criteria		
Significance		
1. Significance	35	28
Quality of Project Design		
1. Project Design	25	22
Quality of the Management Plan		
1. Management Plan	15	12
Quality of Project Personnel		
1. Personnel	10	10
Quality of the Project Evaluation		
1. Project Evaluation	15	0
Total	100	72

Technical Review Form

Panel #8 - i3 Development - 8: 84.411C

Reader #5: *****

Applicant: Sonoma State University (U411C130090)

Questions

Summary Statement - Summary Statement

1. Summary Statement (Optional)

General:

Reader's Score: 0

Selection Criteria - Significance

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

(1) The extent to which the proposed project would implement a novel approach as compared with what has been previously attempted nationally.

(2) The potential contribution of the proposed project to the development and advancement of theory, knowledge, and practices in the field of study.

(3) The extent to which the proposed project will substantially improve on the outcomes achieved by other practices, such as through better student outcomes, lower cost, or accelerated results.

Strengths:

The proposed project would provide useful data on the effectiveness of the project curriculum for improving high school student computational competencies. The potential contributions of the project to the advancement of theory, knowledge, and practices are to provide data on the effectiveness of this particular approach to computational learning compared to technologies that have been used by other groups. The proposed project if successful will substantially improve on the outcomes achieved by other practices with respect to better student outcomes.

Weaknesses:

The use of simple programming languages to teach computational competencies is not in itself a novel approach as similar studies have been done by others. The proposal could be strengthened by a more thorough and critical review of previous computational competency projects. This would point more clearly to weaknesses in past work that could be addressed in the project.

Reader's Score: 28

Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

(2) The clarity and coherence of the project goals, including the extent to which the proposed project articulates an explicit plan or actions to achieve its goals (e.g., a fully developed logic model of the proposed project).

(3) The clarity, completeness, and coherence of the project goals, and whether the application includes a description of project activities that constitute a complete plan for achieving those goals, including the identification of potential risks to project success and strategies to mitigate those risks.

Strengths:

The proposed project addresses the absolute priorities 8 (serving rural schools) and 3 (Improving STEM Education: Redesigning course content and Instructional Practices). The project goals are clearly and coherently presented. The project will develop a two-year, science-driven, computational-thinking curriculum that improves mathematical and science proficiency for 485 high-needs rural students in six Mendocino County, California high schools (page 10). The proposed project articulates an explicit plan to achieve its goals using a fully developed logic model of the proposed project.

Weaknesses:

The proposal would be strengthened by providing more specifics on the curriculum to be developed. While some potential risks to project success have been identified and strategies to mitigate those risks are provided, important risks related to curriculum development are not identified. The development of effective, quality curriculum is a time-consuming, iterative process requiring collaboration among individuals with a variety of content and pedagogical skills and formative feedback from user groups. It is critical for the success of the project that barriers to development of the proposed curriculum be identified and strategies for overcoming the barriers be formulated.

Reader's Score: 22

Selection Criteria - Quality of the Management Plan

1. In determining the quality of the management plan and personnel for the proposed project, the Secretary considers the following factors:

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The extent of the demonstrated commitment of any key partners or evidence of broad support from stakeholders whose participation is critical to the project's long-term success.

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

Strengths:

The management plan articulates key responsibilities and has well-defined objectives. The proposal includes timelines and milestones for completion of major project activities and the metrics that will be used to assess progress on an ongoing basis. Evidence is provided through support letters that key partners critical to the project's long-term success are committed to involvement in the project.

Weaknesses:

The proposal would be strengthened by providing more specific strategies for ensuring feedback and continuous improvement in the operation of the project. The applicant could strengthen its performance targets to enhance its

monitoring of the project and to ensure it is on track to meet its goals.

Reader's Score: 12

Selection Criteria - Quality of Project Personnel

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

Strengths:

The project's staffing plan is adequate including the identification of the project director and how Educational Specialist and Computer Technician positions will be recruited at the beginning of the project. A clear plan is presented as to how critical work will proceed during the startup phase of the project during which new staff members are being added. The project personnel are qualified to successfully implement the proposed project.

Weaknesses:

None

Reader's Score: 10

Selection Criteria - Quality of the Project Evaluation

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

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.

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

Strengths:

Scored by another reviewer

Weaknesses:

Scored by another reviewer

Reader's Score: 0

Status: Submitted

Last Updated: 09/20/2013 04:28 PM

