

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

Status: Submitted

Last Updated: 06/13/2019 01:08 PM

Technical Review Coversheet

Applicant: Code.org (U411C190093)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	25	25
Quality of Project Design		
1. Project Design	35	35
Adequacy of Resources/Quality of Management Plan		
1. Resources/Management Plan	20	18
Sub Total	80	78
Priority Questions		
Competitive Preference Priority		
Competitive Preference Priority		
1. Absolute Priority 3	5	5
Sub Total	5	5
Total	85	83

Technical Review Form

Panel #14 - EIR Early Phase Tier 1 - 14: 84.411C

Reader #3: *****

Applicant: Code.org (U411C190093)

Questions

Selection Criteria - Significance

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

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

(2) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

Strengths:

The applicant discusses the barriers (issues) the proposed project will address and supports each with research data. (p. e23-24) The Theory of Action diagram (p.e24) clearly shows the barriers and how the applicant will deal apply the strategies for each barrier. Data further show success with the current model and details the gaps and what the proposed project will address. The applicant includes national data which indicates the need to be addressed involves rural communities across the nation.

The proposed project is significant and will greatly improve the practice of enrolling students in computer science classes. The applicant will achieve this through the innovative approach of educating the staff, specifically the administrators and counselors, to enroll students in computer science courses and provide high-quality professional learning for teachers, particularly in rural districts. (p. e25)

The applicant sufficiently describes the existing strategy in detail along with the new proposed strategy and successfully makes the link to build upon the existing strategy in Figure 6. (p. e30). The workshops offered during the summer and during the academic year provide ongoing support to teachers. The new strategy is adding eight three-hour online modules which are beneficial in reaching rural communities who are unable to travel or bring in quality professional learning.

Weaknesses:

No weaknesses noted.

Reader's Score: 25

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:

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

(2) The extent to which there is a conceptual framework underlying the proposed research or

demonstration activities and the quality of that framework.

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

Strengths:

Figure 4 on p. e29 details the project goals and objectives while linking a measurable objective to each goal. Specific goals are included for high need populations (rural, underrepresented minorities, and women) allowing the applicant to measure the effect of the strategies on the specific populations. (p. e170-172) Objectives on p. e169-172 will be compared to the baselines established.

The framework of the project is supported by research that is clearly stated by component (school leadership program for administrators and counselors, blended learning program for teachers, and college readiness preparation for students) starting on p. e32-34. Each activity includes an adequate explanation of the steps that the applicant will take to implement the activity effectively. Education of the counselors and administrators to promote computer science is an innovative, whole-team approach to the identified problem that is innovative because this strategy addresses a barrier that has not been widely researched.

The plan for using the feedback on the project is detailed and will allow for the continuous improvement of the project. (p. e34-35) The Partners will have monthly check-ins with their Code.org staff member along with reviews with regional partners to ensure communication is ongoing.

Weaknesses:

No weaknesses noted.

Reader's Score: 35

Selection Criteria - Adequacy of Resources/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:

(1) 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.

(2) The qualifications, including relevant training and experience, of key project personnel.

(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 management of the project involves an organization with an established track record. The timeline clearly establishes the activities in a sequence that is achievable. (p. e35-36)

The key personnel section includes the school districts as key personnel indicating a strong working relationship between Code.org, Regional Partners and the partner districts. (p. e37) Key personnel have the qualifications to accomplish the goals of the project as indicated by the detail provided in Figure 8. (p. e37) The relevant experience of the personnel supports the responsibilities given to each key person.

Code.org has a proven record of sustainability as noted in the narrative on p. e38. Currently, the applicant is working on

sustainability with the Regional Partners. Considering sustainability before the grant award announcements are made is a pro-active approach to obtaining funding to continue the program after grant dollars have ended.

Weaknesses:

For personnel, more details are needed to show how the applicant developed the budget for each year. Consider adding base salaries to clearly justify the amount allocated each year. Additionally, the budget funding allocated to contractual seems excessive. (p. e164) Almost [REDACTED] is allocated for a section that does not give the per contract cost requested. With this section not having page limits, more attention is needed in developing the budget justification.

Reader's Score: 18

Priority Questions

Competitive Preference Priority - Competitive Preference Priority

1. Within Absolute Priority 3, we give competitive preference to applications that address the following priority:

Projects designed to improve student achievement or other educational outcomes in computer science (as defined in the notice). These projects must address the following priority area:

Expanding access to and participation in rigorous computer science (as defined in the notice) coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in the notice), children or students with disabilities (as defined in the notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

Note: Projects addressing this priority must be administered in a manner consistent with nondiscrimination requirements contained in the U.S. Constitution and Federal civil rights laws.

Strengths:

Proposed project centers all activities on training teachers not just on computer science but also on AP computer science exam curriculum. This training will provide students with high quality instruction. The applicant is focused on increasing the enrollment of girls, URM, and rural students through the training of the school administrators and counselors. (p.e21)

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Status: Submitted
Last Updated: 06/13/2019 01:08 PM

Status: Submitted

Last Updated: 06/13/2019 11:31 AM

Technical Review Coversheet

Applicant: Code.org (U411C190093)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	25	25
Quality of Project Design		
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Technical Review Form

Panel #14 - EIR Early Phase Tier 1 - 14: 84.411C

Reader #1: *****

Applicant: Code.org (U411C190093)

Questions

Selection Criteria - Significance

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

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

(2) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

Strengths:

The applicant provides clear evidence for this proposed project to contribute to the understanding of how to increase the numbers of female and underrepresented students in rural populations. Code.org will be the fiscal agent for this project which covers five states and is intended to reach 12,500 students in this early phase. The project addresses the continued problem poor access to computer science instruction for students in rural, low-income, and high-minority high schools (pg. e23). The potential contribution of this project stems from the inclusion of administrators, counselors, and pre-service teachers to help reduce the barriers students face in gaining access to rigorous computer science instruction—in the case of this project, specifically to AP Computer Science Principles (AP CSP).

As an example, the applicant describes Barrier 4 on pages e23 and e24 as a lack of understanding of computer science (CS) on the part of counselors, leading to the potential for poor advising that keeps underrepresented students out of CS courses. The applicant acknowledges that there is no one interventions that will contribute to solving the problems facing female and underrepresented students in accessing CS coursework and, therefore, proposes a project for developing a “system of multiple interventions” to eliminate the identified barriers (pg. e24).

The proposed project builds upon the existing strategies connected to Code.org’s AP CSP program while striving to address what the organization has not yet achieved—achieving structured guidance for school administrators and counselors and making high quality CS professional development more accessible for teachers in rural areas (pg. e25). An innovative component of the project is the inclusion of strategies for preparing principals to set the conditions in the school to facilitate rigorous CS teaching and learning. The applicant provides relevant research about school leadership being second to only to classroom instruction (pg. e26). The project includes a comprehensive School Leadership Program with outcomes, delivery methods and example program details on pages e131-e134. The applicant also provides current and relevant research supporting the impact of the Code.org model for expanding CS education. (pg. e25).

Weaknesses:

None identified.

Reader's Score: 25

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:

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

(2) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.

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

Strengths:

The applicant presents three objectives for the project with relevant activities and measurable outcomes. The project follows a 22-month cycle beginning with the school leadership program, followed by teacher face-to-face training and learning through online modules, and resulting in students taking the AP CSP coursework and exam (pg. e30). The performance measures are clearly linked to the project objectives. As an example, Project Objective 3 focuses on increasing the number of schools adding AP CSP to their master schedules through appropriate training of administrators (pg. 172). Performance Measure 3.a. is that 20 high school administrators from each of the partner regions will implement an action plan for adding AP CSP to their master schedules. In addition, Performance Measure 3.e. is that the number of schools adding AP CSP to their master schedules will increase each year from the baseline measures.

The applicant displays a logic model on page e120 that clearly details existing and new activities proposed by Code.org to successfully achieve the intended outcomes of the project. The logic model supports the conceptual framework that is built upon, (1) current research for building the capacity of school administrators to support C; (2) research supporting a blended model of professional learning that allows for structured learning for teachers as well as learning they achieve on their own time; and (3) research supporting the college readiness provided through AP courses, especially as it relates to the effectiveness of Code.org's AP CSP program (pg. e32-e34). The research referenced in the application is relevant and current and supports a quality framework for this project.

The applicant provides clear evidence of procedures for ensuring feedback and continuous improvement during the project. One example is that the evaluator will collect performance feedback early in the project to improve on later cohorts of administrators and counselors (pg. e35). In addition, Code.org will collect student progress data as well as student and teacher survey data throughout the project. Monthly check-ins will occur between the project partners and an identified Code.org staff member (pg. e35).

Weaknesses:

None identified.

Reader's Score: 35

Selection Criteria - Adequacy of Resources/Quality of Management Plan

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(1) 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.

(2) The qualifications, including relevant training and experience, of key project personnel.

(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 a well-developed management plan with the identification of who is responsible for different parts of the project (pgs. e35-e36). The plan is further enhanced with a description of the key personnel roles on page e36.

The applicant demonstrates that the key personnel identified for this project have the relevant backgrounds for assuring the project is completed on time and within budget. The key project directors and managers identified on page e36 are employees of Code.org and are knowledgeable about the organization's delivery models and educational programs. As an example, the Education Program Manager developed the AP CSP professional learning models for teachers and facilitators (pg. e36). Also, the Project Director helped to lead Code.org's scaling strategy for K-12 CS, which has demonstrated success in reaching students and teachers with the company's learning platform.

Weaknesses:

The management plan would benefit from the identification of interim milestones within each year. The chart beginning on page e35 has a heading that includes "Years and Months," but only annual milestones are shown.

The applicant provides limited evidence for support of the project beyond the length of the grant period. There is a statement on pg. e38 that 33% of previous Regional Partners have been able to sustain the work beyond the end of the project. The plan for continued support is dependent upon the Regional Partners being able to secure long-term funding from other sources.

Reader's Score: 18

Priority Questions

Competitive Preference Priority - Competitive Preference Priority

1. Within Absolute Priority 3, we give competitive preference to applications that address the following priority:

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Expanding access to and participation in rigorous computer science (as defined in the notice) coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in the notice), children or students with disabilities (as defined in the notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

Note: Projects addressing this priority must be administered in a manner consistent with nondiscrimination requirements contained in the U.S. Constitution and Federal civil rights laws.

Strengths:

The applicant provides sufficient evidence of a project intended to expand access to and participation in rigorous computer science coursework (AP CSP) for underrepresented students. The Regional Partner Student Demographics chart on page e126 provides evidence that the participating districts operate in states with populations of

underrepresented students. The applicant describes that expected outcomes of the project include increasing the number of women, URM, and Rural students participating and earning qualifying scores on the AP CSP exam, thereby demonstrating increased college readiness (pg. e18).

Weaknesses:

None identified.

Reader's Score: **5**

Status: Submitted

Last Updated: 06/13/2019 11:31 AM

Status: Submitted

Last Updated: 06/13/2019 02:28 PM

Technical Review Coversheet

Applicant: Code.org (U411C190093)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	25	25
Quality of Project Design		
1. Project Design	35	35
Adequacy of Resources/Quality of Management Plan		
1. Resources/Management Plan	20	18
Sub Total	80	78
Priority Questions		
Competitive Preference Priority		
Competitive Preference Priority		
1. Absolute Priority 3	5	5
Sub Total	5	5
Total	85	83

Technical Review Form

Panel #14 - EIR Early Phase Tier 1 - 14: 84.411C

Reader #2: *****

Applicant: Code.org (U411C190093)

Questions

Selection Criteria - Significance

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

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

(2) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

Strengths:

The application provides a very clear overview of Code.org's "Equity in AP CS Principals" project (p. e21), which includes a rationale and evidence of increased knowledge and understanding computer science (CS) in the context of rural communities the proposal would serve. (p. e21) This evidence builds on the problems, issues and effective strategies they have identified in their proposed project (p. e22). Of significance in their proposal is addressing barriers, as this was a very strong argument. This applicant has demonstrated that the proposal would address expanding CS access in high school (p. e22), as well as supporting teachers with CS support, CS curriculum/supports/resources and support for counselors and administrators. (p. e24). Their model for scaling is very strong and includes a lot of detail as evidenced by the logic model, outcomes, barrier info (p. e120, p. e131) This evidence builds upon the effective strategies related to AP CPS program they identify in their proposal (p. e22-e23)

This proposal shows evidence to a great extent that it would involve developing new strategies through Building on Code.org's AP CS Principle Program. (p. e25) Because the program would be integrated into the schools' master schedules, along with regional partner support, this proposal provides evidence that they will significantly improve student outcomes, specifically related to AP CSP test taking and qualified scores. (p. e27). More evidence is included in the "coding impact summary" on p.e27. Coding technology makes thus innovative as well as the leadership component with principal's evaluating teachers. (p. e26)

Weaknesses:

No Weaknesses Noted

Reader's Score: 25

Selection Criteria - Quality of Project Design

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(2) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.

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

Strengths:

The specific goals and outcomes are achievable and measurable, as this proposal outlines them in great detail on p. e27 – p.e34. This includes a list of at least 2 detailed goals on p. e29, along with outcomes that are quantitative and achievable. Evidence of this is included in the impact summary chart on p. e27, and in the narrative on p. e29-e30.

A logic model is included on p. e120. It includes detailed elements such as an equity in AP CSP Program Implementation Cycle, a Learning Model and in figure 7's ESSA Key criteria that provide strong evidence for the quality of that framework, along with the great extent to which it meets this criterion. (p. e30-e31) This also helped to address how the goals, objectives and outcomes would be carried out, because of the level of clear detail.

Great detail of research on p. e32 - e34. Baseline is acknowledged on p. e169 and 172 with more detail on p. e27

An important aspect of assessing the feedback through the proposed project is with performance feedback and student progress data, as well as through teacher and student surveys (p. e35) This, along with the monthly check-ins with partners and code.org staff appear to be very comprehensive. (p. e35)

Weaknesses:

No Weaknesses Noted

Reader's Score: 35

Selection Criteria - Adequacy of Resources/Quality of Management Plan

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(2) The qualifications, including relevant training and experience, of key project personnel.

(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 management plan referenced on p. e35 – e36 and describes the timeframe, milestones and activities. Very specific information about the project's responsibilities are outlined on p. e37 – e38. This evidence is very detailed and there are no gaps in what is needed in accomplishing the project tasks. This is also supported by a detailed budget that helps to provide the detail needed to understand how the management plan would be accomplished. (p. e162 – e168)

The personnel responsible for carrying out activities and goals related to the proposed program were included in the resume section (p. e54-e87). There were a range of talents, experiences, trainings and expertise reflected, and I also noted that at least 1 of them had advanced PhD training. This is further described in even greater detail on p. e37 – p. e38. Their combined experience demonstrates that they would be able to implement this project based through the evidence of their work records.

Evidence of the potential for continued support appears in the letters on p. e89-e117. Based on the letters included, these imply that there will be continued support of the project after federal funding ends, as well as organizations being committed to the continued success of the program. The school districts' participating also appear to support the continuation of the project components after the federal funds are terminated to ensure sustainability of the project. (p. e99 – e116) The intellectual capital of the AP students also extends to influencing and possibly teaching others in other organizations where they study and/or work, in perpetuating the importance of the project.

Weaknesses:

Evaluation of the project referenced on p. e164 and p. e162 is very expensive. [REDACTED]

Because this is a significant amount of the grant, it should be re-evaluated and provide more of these resources for participants since they should benefit more directly.

Reader's Score: 18

Priority Questions

Competitive Preference Priority - Competitive Preference Priority

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Note: Projects addressing this priority must be administered in a manner consistent with nondiscrimination requirements contained in the U.S. Constitution and Federal civil rights laws.

Strengths:

This applicant has demonstrated that the proposal would address issues of rigorous CP, along with including a strong rationale through the Code.org Theory of Action. (p. e24) They include evidence of how this would impact female students, as well as black and Hispanic students (p. e27)

Weaknesses:

No Weaknesses Noted

Reader's Score: 5

Status: Submitted
Last Updated: 06/13/2019 02:28 PM