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

Technical Review Coversheet

Applicant: Urban Arts Partnership (S411C210110)
Reader #1:   **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		20	20
Quality of Project Design			
1. Project Design		30	24
	Sub Total	50	44
Resources & Management Plan			
Resources & Management Plan			
1. Resources & Manag. Plan		25	21
	Sub Total	25	21
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		25	0
	Sub Total	25	0
Priority Questions			
CPP1			
CPP1			
1. CPP1		5	5
	Sub Total	5	5
CPP2			
CPP2			
1. CPP2		5	0
	Sub Total	5	0
CPP3			
CPP3			
1. CPP3		5	5
	Sub Total	5	5
	Total	115	75

Technical Review Form

Panel #8 - EIR Early Phase - 8: 84.411C

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

Applicant: Urban Arts Partnership (S411C210110)

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:

Reader's Score: 20

> **Sub**

> 1. **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:**

> 70% of students nationally and 40% in NYC successfully pass the AP Computer Science test (e28) and the applicant is proposing development of promising new strategies (game based design, arts integration in CS (computer science), culturally responsive teaching) to improve the passage rate. Gaming is especially promising as students tend to be highly engaged while playing video games.

> **Weaknesses:**

> n/a

> **Reader's Score: 15**

2. **The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.**

> **Strengths:**

> The applicant has a strong plan for successfully disseminating the findings to others (page e31) and – more importantly – they have a plan to make the project an officially endorsed project by the College Board.

> **Weaknesses:**

> n/a

> **Reader's Score: 5**

Selection Criteria - Quality of Project Design

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

Reader's Score: 24

   Sub

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

    Strengths:

    The applicant is proposing a game design that will work on inexpensive devices like Chromebooks (e33); the instruction uses replicate-modify-create methodology (e34); and teacher professional design is also based on a specialized framework (e35).

    Weaknesses:

    It can be assumed that the content of the game will be aligned to meet the standards/content of the AP CS exam, but the applicant does not address this specifically.

   Reader's Score: 13

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

    Strengths:

    The applicant lists specific goals with clear objectives and aligned outcomes on page e36/37 and those outcomes are measurable.

    Weaknesses:

    n/a

   Reader's Score: 5

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

    Strengths:

    The applicant identifies women, racial minorities, and low-income students as the target population (e37). In past projects, the applicant has successfully recruited a diverse user base (e38). Currently only 14% of NYC schools offer AP CS course (e38) and the inexpensive requirements for this class mean more students could access an AP CS course.

    Weaknesses:

    The applicant does not address other barriers for a lack of AP CS course offering, such as a lack of experienced teachers at those schools. (The comments on page e26 are unclear).

   Reader's Score: 6

Resources & Management Plan - Resources & Management Plan

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score: 21

    Sub

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

    Strengths:

    The project plan (e39) lists clear objectives, timelines, and responsible parties for accomplishing project tasks.

    Weaknesses:

    The applicant simply lists a bunch of tasks rather than organizing them into larger objectives. The applicant could have introduced milestones as a way of properly organizing the tasks/objectives into a larger narrative.

    Reader's Score: 7

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

    Strengths:

    The teams and personnel listed on page e41 have the relevant training and expertise to carry out the project.

    Weaknesses:

    n/a

    Reader's Score: 5

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

    Strengths:

    On page e41, the applicant states a cost of $1,828 per student that will directly serve 2,400 students in the study period and many more after the study period ends. Over time, the per student cost will be reduced as most of the cost is upfront technology and curriculum development.

    Weaknesses:

    The applicant does not provide an expected cost for a school that wishes to implement the game at their school after the study period is over.

    Reader's Score: 4

4. **The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**

    Strengths:

    The applicant has a clear party responsible for implementing feedback and continuously learning (e42). They have also identified when they are meeting to ensure this important step actually happens.

Weaknesses:

n/a

Reader's Score: 5

Selection Criteria - Quality of the Project Evaluation

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

Reader's Score: 0

    Sub

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

    Strengths:

    Weaknesses:

    Reader's Score:

2. **(2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

Priority Questions

CPP1 - CPP1

1. **Competitive Preference Priority 1: Computer Science (up to 5 points).**
   Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

   Strengths:

   Applicant is developing a game that prepares students for the AP CS exam. The game works on Chromebooks, so that students can easily access the game without requiring sophisticated/expensive devices.

   Weaknesses:

   n/a

Reader's Score: 5

CPP2 - CPP2

1. **Competitive Preference Priority 2: Innovative Approaches to Addressing the Impact of COVID-19 on Underserved Students and Educators (up to 5 points).**
   Projects designed to address the needs of underserved students and educators most impacted by COVID-19 through…[refer to the NIA for the full list of potential projects]

   Strengths:

   n/a

   Weaknesses:

   n/a

Reader's Score: 0

CPP3 - CPP3

1. **Competitive Preference Priority 3: Promoting Equity and Adequacy in Student Access to Educational Resources and Opportunities (up to 5 points).**
   Projects designed to promote equity in access to critical resources for underserved students in prekindergarten through grade 12 through one or more of the following…[refer to the NIA for the full set of potential projects]

   Strengths:

   The applicant is ensuring the software runs on inexpensive computers like Chromebooks and includes culturally responsive teaching practices (e30).

Weaknesses:

n/a

Reader's Score: **5**

Status: Submitted
Last Updated: 10/16/2021 11:03 AM

Technical Review Coversheet

Applicant: Urban Arts Partnership (S411C210110)
Reader #2:   **********

		Points Possible	Points Scored
Questions			
Selection Criteria			
Significance			
1. Significance		20	0
Quality of Project Design			
1. Project Design		30	0
	Sub Total	50	0
Resources & Management Plan			
Resources & Management Plan			
1. Resources & Manag. Plan		25	0
	Sub Total	25	0
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		25	24
	Sub Total	25	24
Priority Questions			
CPP1			
CPP1			
1. CPP1		5	
	Sub Total	5	
CPP2			
CPP2			
1. CPP2		5	
	Sub Total	5	
CPP3			
CPP3			
1. CPP3		5	
	Sub Total	5	
	Total	115	24

Technical Review Form

Panel #8 - EIR Early Phase - 8: 84.411C

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

Applicant: Urban Arts Partnership (S411C210110)

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:

Reader's Score: **0**

    Sub

   1. 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:

    Weaknesses:

    Reader's Score:

   2. The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

    Strengths:

    Weaknesses:

    Reader's Score:

Selection Criteria - Quality of Project Design

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

Reader's Score: 0

     Sub

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

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

Resources & Management Plan - Resources & Management Plan

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

Reader's Score: 0

     Sub

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.

Sub

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

4. **The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**

    Strengths:

    Weaknesses:

    Reader's Score:

Selection Criteria - Quality of the Project Evaluation

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

Reader's Score: 24

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

    Strengths:

    The applicant evaluation plan addressing the methods of evaluation which will meet the What Works Clearinghouse (WWC) standards is excellent. The applicant has partnered with WestEd as a highly experienced external evaluation team (pp. e40). The proposed quasi-experimental design (QED) indicates a plan to measure the impact on student academic achievement as measured by Advanced Placement (AP) test scores (pg. e48). The evaluation plan will use baseline equivalence for control and intervention groups. The evaluation plan includes formative and summative analysis as outlined in the management plan timeline (pg. e27). The outcomes of student academic achievement assessed by AP Computer Science Programming (pg. e47-48) are acceptable WWC outcome measures. An initial data collection plan is presented in the management plan on pp. e47-48 with a clear statement of the project goals and objectives (pp. e23). Based on the comprehensive management plan presented on pages e39-40, the evaluator seems well-integrated into the overall proposal and is supportive of the project's initiative and evaluation. The application does present a comprehensive student records and privacy policy by the evaluators (pg. e16).

    Weaknesses:

    On page e46, the application states that the impact study will use a QED that meets the WWC standards without reservations, which is not possible since only RCTs would meet that standard. This statement undermines the comprehensive understanding of the evaluation meeting standards. There is no indication within the proposal that there are contingency plans if the evaluation or intervention does not go according to plan.

    Reader's Score: 14

2. **(2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

    Strengths:

    The applicant presents an excellent plan to address performance feedback and assessment of regular progress towards project goals and objectives (pg. e42). The evaluation results will be shared with the management and leadership team that will support decision-making during the implementation (pp. e39-40). Additionally, the application has presented a reiterative logic model on page e27 that integrates a continuous feedback opportunity to the management team.

    Weaknesses:

    No weaknesses noted.

    Reader's Score: 5

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

    Strengths:

    The application makes an excellent case for the contribution to knowledge from this project through the proposed usability, feasibility, and implementation studies. The proposed program integrates and evaluates computer science learning through gaming (pg. e22). The impact study will also examine computational skills, students' interest in STEM career paths and teacher competency teaching a game-based computer science curriculum (pg. e23). The approach will also support equity opportunities for underrepresented minorities, rural students, and students

Sub

underperforming in STEM coursework (pg. e49).

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Priority Questions

CPP1 - CPP1

1. **Competitive Preference Priority 1: Computer Science (up to 5 points).**
   Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

   Strengths:

   Weaknesses:

Reader's Score:

CPP2 - CPP2

1. **Competitive Preference Priority 2: Innovative Approaches to Addressing the Impact of COVID-19 on Underserved Students and Educators (up to 5 points).**
   Projects designed to address the needs of underserved students and educators most impacted by COVID-19 through…[refer to the NIA for the full list of potential projects]

   Strengths:

   Weaknesses:

Reader's Score:

CPP3 - CPP3

1. **Competitive Preference Priority 3: Promoting Equity and Adequacy in Student Access to Educational Resources and Opportunities (up to 5 points).**
   Projects designed to promote equity in access to critical resources for underserved students in prekindergarten through grade 12 through one or more of the following…[refer to the NIA for the full set of potential projects]

Strengths:

Weaknesses:

Reader's Score:

Status: Submitted
Last Updated: 10/15/2021 05:55 PM

Technical Review Coversheet

Applicant: Urban Arts Partnership (S411C210110)
Reader #3:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	20	0
Quality of Project Design		
1. Project Design	30	0
Sub Total	50	0
Resources & Management Plan		
Resources & Management Plan		
1. Resources & Manag. Plan	25	0
Sub Total	25	0
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	24
Sub Total	25	24
Priority Questions		
CPP1		
CPP1		
1. CPP1	5	
Sub Total	5	
CPP2		
CPP2		
1. CPP2	5	
Sub Total	5	
CPP3		
CPP3		
1. CPP3	5	
Sub Total	5	
Total	115	24

Technical Review Form

Panel #8 - EIR Early Phase - 8: 84.411C

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

Applicant: Urban Arts Partnership (S411C210110)

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:**

Reader's Score: **0**

   Sub

1. **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:

   Weaknesses:

   Reader's Score:

2. **The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.**

   Strengths:

   Weaknesses:

   Reader's Score:

Selection Criteria - Quality of Project Design

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

Reader's Score: 0

 Sub

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

  Strengths:

  Weaknesses:

  Reader's Score:

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

  Strengths:

  Weaknesses:

  Reader's Score:

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

  Strengths:

  Weaknesses:

  Reader's Score:

Resources & Management Plan - Resources & Management Plan

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score: 0

 Sub

 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.**

Sub

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

4. **The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**

    Strengths:

    Weaknesses:

    Reader's Score:

Selection Criteria - Quality of the Project Evaluation

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

Reader's Score: 24

Sub

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

   Strengths:

   What Works Clearinghouse standards with reservations will be used to develop the quasi-experimental design by using a two-level hierarchical linear modeling approach (Appendix J, p. e91). Usability, feasibility, implementation (initial and final), and impact studies will be conducted by WestEd evaluation group to assess all aspects of Games on Implementation (p. e42 and e43) project. Sufficient details of the quasi-experimental design based on WWC standards are provided in Appendix J which gives clear discussion of statistical models used for impact analyses and estimating treatment effects. There is also clear discussion on attrition and baseline equivalence (p. e48).

   Weaknesses:

   The specific WWC standards that will be addressed in the evaluation plan are not clear and specific. No specific details are provided about the type of quasi-experimental design. A contingency plan is not provided in case the quasi-experimental design shows limited treatment effects.

   Reader's Score: 14

2. **(2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

   Strengths:

   Sufficient details on the specific quantitative and/or qualitative metrics/measures are included. Clear description of the formative evaluation measures to measure interim progress of the project is provided. Clear and detailed discussion of data sources, and data collection measures is also included. Information is provided on validity and reliability (Cronbach alpha) of data collection measures from past peer-reviewed research articles (p. e43 and e44). Data collection procedures for both quantitative and qualitative data are clearly explained. Sufficient details are provided for study implementation, data collection, data analysis, and reporting within the usability study (p. e44 and e45), feasibility study (p. e45 and e46), classroom implementation studies, and impact study (p. e46). Research questions guiding each study are provided (p. e89 and e90). Appendix J provides data collection measures and survey items for each measure (p. e86-e88) as well as analysis procedures and statistical models, power analysis, impact analyses, treatment effects, mediator effects, and missing data analysis. Evaluation questions are clear, specific, and are tied to the project overall goals, objectives, and timeline (p. e39 and e40). One evaluator is specifically designated for monitoring and reporting only the formative assessment process (p. e41). The narrative provides the information on student privacy policy (p. e19).

   Weaknesses:

   No weaknesses noted.

   Reader's Score: 5

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

   Strengths:

   Game on blended components are clearly described in the project narrative (p. e35-e37).

   Other comments: The project management plan and logic model are well-developed and aligned to each project goal (p. e84). The dissemination plan is coherently explained (p. e31). Program participation data are explained at

the unit-level, which then integrates with the benchmark project (p. e33-e35). The curriculum of blended learning is clearly and comprehensively explained (p. e34-e36). The project management plan and responsibilities are clear (p. e39 & e40). Peer-reviewed journal articles are used to support the claim that game design is a pathway to enhance computational thinking skills and knowledge on computer science principles (p. e29 and e30). There is comprehensive discussion of culturally responsive teaching (p. e30). The dissemination plan is clearly described in the project narrative (p. e31).

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Priority Questions

CPP1 - CPP1

1. **Competitive Preference Priority 1: Computer Science (up to 5 points).**
   Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

   Strengths:

   Weaknesses:

Reader's Score:

CPP2 - CPP2

1. **Competitive Preference Priority 2: Innovative Approaches to Addressing the Impact of COVID-19 on Underserved Students and Educators (up to 5 points).**
   Projects designed to address the needs of underserved students and educators most impacted by COVID-19 through…[refer to the NIA for the full list of potential projects]

   Strengths:

   Weaknesses:

Reader's Score:

CPP3 - CPP3

1. **Competitive Preference Priority 3: Promoting Equity and Adequacy in Student Access to Educational Resources and Opportunities (up to 5 points).**
   Projects designed to promote equity in access to critical resources for underserved students in prekindergarten through grade 12 through one or more of the following…[refer to the NIA for the full set of potential projects]

   Strengths:

   Weaknesses:

   Reader's Score:

Status: Submitted
Last Updated: 10/16/2021 02:43 AM

Status: Submitted
Last Updated: 10/16/2021 11:02 AM

Technical Review Coversheet

Applicant: Urban Arts Partnership (S411C210110)
Reader #4:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	20	20
Quality of Project Design		
1. Project Design	30	21
Sub Total	50	41
Resources & Management Plan		
Resources & Management Plan		
1. Resources & Manag. Plan	25	17
Sub Total	25	17
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	0
Sub Total	25	0
Priority Questions		
CPP1		
CPP1		
1. CPP1	5	4
Sub Total	5	4
CPP2		
CPP2		
1. CPP2	5	0
Sub Total	5	0
CPP3		
CPP3		
1. CPP3	5	3
Sub Total	5	3
Total	115	65

Technical Review Form

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

Applicant: Urban Arts Partnership (S411C210110)

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:

Reader's Score: 20

    Sub

1. **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 proposed project gives an indepth discussion on the use of game design for teaching computer science (CS) principles (e29). The proposed project skillfully discusses the use of an arts-integrated approach to teaching and learning (e30). The proposed project sufficiently discusses the creation of a year-long Advanced Placement Computer Science Principles (AP CSP) course that consists of 4 units of 25-28 hours of projects (e33).

   Weaknesses:

   No weaknesses noted.

   Reader's Score: 15

2. **The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.**

   Strengths:

   The proposed project adequately discusses the desire to become College Board endorsed as a provider of AP CSP Curricula and Pedagogical Support to help other schools implement a successful AP CSP program. The proposed project will include a curriculum guide, instructional videos, and asynchronous learning modules (e40). There is a strong project dissemination plan for these products via the UAP website, social media, research articles and conferences (e31-e32).

   Weaknesses:

   No weaknesses noted.

   Reader's Score: 5

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project. In determining the

quality of the design of the proposed project, the Secretary considers the following factors:

Reader's Score: 21

Sub

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

   Strengths:

   There is sufficient discussion on the School of Interactive Arts, of which the proposed project is an extension, successfully preparing students to pass the AP CSP exam with a pass rate of 84%; applying a creative development process when making digital art; employing mathematical and logical concepts in programming; expressing algorithm in programming; collaborating when processing information to gain insight and knowledge; and using models and simulations (e28). In addition, the use of NY and NC state computer science standards and the benefits of taking an arts-integrated approach to teaching and learning (e30) are discussed.

   Weaknesses:

   There is insufficient discussion on the benefits of the replicate-modify-create method being taken. In addition, there is insufficient discussion on how this framework is applied to the AP CSP exam, for which the curriculum is preparing students.

   Reader's Score: 12

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

   Strengths:

   For the majority of outcomes, there is adequate discussion of what the specifics of the outcome is, what is being measured, and how it will be measured (e36-37). In outcome 2, there is sufficient discussion on how attitudes toward computer science and growth mindset will be measured. (e43)

   Weaknesses:

   (e36) The outcomes are insufficiently specific, (e.g. "a higher rate" for outcome 1b).

   Reader's Score: 4

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

   Strengths:

   There is sufficient discussion on the need to increase participation in CS by underrepresented groups. There is also sufficient discussion on the need to provide teachers with quality professional development on the delivery of CS programs. (e37-e38) It is noted that only 14% of NYC schools have AP CS courses, so this project could help with the lack of access of AP CS courses.

   Weaknesses:

   There is insufficient research done on the target population because the target schools have not yet been identified, resulting in a lack of demographic information.

Sub

Reader's Score: 5

Resources & Management Plan - Resources & Management Plan

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

Reader's Score: 17

Sub

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.**

   Strengths:

   There is sufficient discussion on the key roles and responsibilities of those roles (e39). There is an adequate Gantt chart that identifies activities that need to be accomplished (e39-e40).

   Weaknesses:

   The timeline given insufficiently provides specifics of start and end dates for the activities identified.

   Reader's Score: 6

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

   Strengths:

   E40-e41 provide a sufficient description of the experience and education for the majority of the key project personnel. The COO has relevant training and experience.

   Weaknesses:

   The proposed project insufficiently discusses the experience and relevant training of the Program Team outside of Krystel Theuvenin.

   Reader's Score: 4

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

   Strengths:

   There is a sufficient breakdown of the proposed costs and the costs are reasonable when looking at each item individually.

   Weaknesses:

   $1,828 per student is on the higher side.

   Reader's Score: 3

4. **The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**

   Strengths:

   There is an adequate discussion of meetings that will occur and a timeline for these meetings to ensure for feedback and continuous improvement. There is sufficient discussion on the means of data collection that will conducted at each level of the project (e43-e47).

   Weaknesses:

   There is insufficient discussion on the data that will be examined at each of these meetings and how the data will inform continuous improvement (e42).

   Reader's Score: 4

Selection Criteria - Quality of the Project Evaluation

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

Reader's Score: 0

   Sub

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

      Strengths:

      Weaknesses:

      Reader's Score:

   2. **(2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

      Strengths:

      Weaknesses:

      Reader's Score:

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

Sub

    Strengths:

    Weaknesses:

    Reader's Score:

Priority Questions

CPP1 - CPP1

1. **Competitive Preference Priority 1: Computer Science (up to 5 points).**
   Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

   Strengths:

   The proposed project adequately discusses the use of game design to teacher AP CSP courses in low-income urban NYC schools and rural NC public schools. The proposed project adequately discusses the methods being used in the project as well as PD that will be conducted to ensure high-quality instruction is available. The proposed project gives a basic scope of sequence of the course being developed. The fact that the program will work on Chromebooks will increase accessibility of the program.

   Weaknesses:

   The proposed project inadequately discusses how the scope and sequence developed will relate to the skills and big ideas of the AP CSP exam.

Reader's Score: 4

CPP2 - CPP2

1. **Competitive Preference Priority 2: Innovative Approaches to Addressing the Impact of COVID-19 on Underserved Students and Educators (up to 5 points).**
   Projects designed to address the needs of underserved students and educators most impacted by COVID-19 through…[refer to the NIA for the full list of potential projects]

   Strengths:

   This is not addressed.

   Weaknesses:

   This is not addressed.

Reader's Score: 0

CPP3 - CPP3

1. **Competitive Preference Priority 3: Promoting Equity and Adequacy in Student Access to Educational Resources and Opportunities (up to 5 points).**
   Projects designed to promote equity in access to critical resources for underserved students in prekindergarten through grade 12 through one or more of the following…[refer to the NIA for the full set of potential projects]

   Strengths:

   There is adequate discussion of the research done on game design's effectiveness to develop CT skills and principles in underserved communities. There is sufficient discussion on the need to provide high-quality professional development for teachers to increase availability to STEM activities. There is a good discussion on the project creating a culturally responsive program (e30) that will can increase engagement.

   Weaknesses:

   The lack of teachers or schools identified for the project does not ensure that the proposed project will increase equity.

   Reader's Score: 3

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