

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

Status: Submitted

Last Updated: 10/23/2020 06:00 PM

Technical Review Coversheet

Applicant: Educational Service District 105 (S411C200062)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of Project Design		
1. Quality of Project Design	40	37
Sub Total	40	37
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	35	30
Sub Total	35	30
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	23
Sub Total	25	23
Priority Questions		
CPP		
Competitive Preference Priority 1		
1. Computer Science	5	4
Sub Total	5	4
Total	105	94

Technical Review Form

Panel #6 - FY20 EIR Early Phase- AP2 STEM - 6: 84.411C

Reader #1: *****

Applicant: Educational Service District 105 (S411C200062)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project based on the following factors:

Reader's Score: 37

Sub

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

Strengths:

Proposed goals, objectives and outcomes are clearly aligned to prior research (e18), proposed activities, and include performance measures (e21). The project will utilize state standard assessment scores to measure academic achievement (e21). The research design includes an intervention and comparison group.

Weaknesses:

A pre-post survey will be used to measure interest, but there is no information provided regarding the validity and reliability of this instrument (e21) and not clear what tests will be undertaken to validate (e37).

Reader's Score: 9

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

Strengths:

Rationale for the proposed program and research for the target population is thoroughly described with statistics provided about the student farmworker's current educational context and economic prospects (e18), and relates to specific needs for the agricultural workforce to respond to innovations in STEM and future jobs (e19). Student demographics for the 6 participating school districts, research sampling frame, show high percentages of farmworkers, ELL, & free-reduced lunch in comparison to total Washington state student population (e23). The detailed logic model (e12) describes the proposed program and research process and connections to outputs and anticipated outcomes.

Role models will focus on teaching students the importance of math and stem courses as motivators to enroll in computer science coursework (e27) as well as increase achievement on math and science state assessments.

Weaknesses:

The target population of role models is not clear. While three partners submitted letters of support (e70-e72) offering to assist in networking to connect with potential role models it is not clear how the project will be able to recruit 231 role models qualified to mentor students in computer science/math. Teach for American is the only letter with

Sub

explicit numbers, and they will provide 20 alumni members per year (e81). For example, teachers and staff will support ELL student needs, but will role models be able to accommodate ELL student needs (e10).

Reader's Score: 9

3. (3) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice.

Strengths:

The proposed EIR projects builds upon research that shows positive effects of mentoring on increasing girls' interest in computer science careers and math and science academic achievement (e18).

Weaknesses:

The proposal does not describe criteria to qualify as a minority student role model in Computer Science nor how students will be matched to mentors (e.g., will role models "look-like" their mentees? E15).

Reader's Score: 9

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

Strengths:

The proposed research contributes to knowledge on effective strategies to increase interest in STEM Careers for minority, farmworker student populations in rural schools (e24). The proposal states this research will be the first contribution to WWC findings on for the target population and outcomes (e15). A detailed plan for dissemination includes an established framework for distribution to other schools in Education Service District's service area, open source materials available to practitioners and the public via a website, and national conferences (e39).

Weaknesses:

No weaknesses noted

Reader's Score: 10

Resources and Quality of Management Plan - Resources and Quality of Management Plan

1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project based on the following factors:

Reader's Score: 30

Sub

1. (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 management plan includes as software to organize and monitor project tasks (e33). A detailed timeline articulates a plan for implementation and includes milestone, responsible personnel, and due date for project components (e33).

Sub

Weaknesses:

No weaknesses noted

Reader's Score: 10

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

Strengths:

The budget includes an independent research/evaluator, stipends for mentors, and funds to support participating school districts (e121). Letters to confirmed required matching support are provided (e81-82).

Weaknesses:

The project (e34) and budget (e119) include assigning laptops to students without computers at home, but does not ensure that students in rural locations, living in low-income households will have access to reliable internet services – a necessity for virtual meetings with role models. An investment of \$63,000 in laptops without ensuring access to reliable internet that is required for successful virtual contact is not reasonable. The budget also includes \$105,980 for districts to support role model sessions (e134), making it unclear why laptops are needed if role modeling sessions are conducted at the school.

The inclusion of 4 FTE for project administration & implementation, with personnel costs increases each year (e7) is approx. \$354,000-\$400,000 per year, and is quite large compared to the \$20,000 per year request for Mentor stipends (e121) – particularly when Mentors are essential to project implementation.

The project requests costs including facilities, computers, telephones (e118) are included, yet so is indirect costs (e121). It would be useful to provide details for the lump sum requested for general supplies (e121).

Reader's Score: 2

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

Strengths:

The project director has experience with STEM Computer Science programs and project management (e49). RGI also has experience with evaluation of STEM programs (e50-54). Two STEM Role Model Connection experts will be hired and job descriptions provide duties and required qualifications aligned to proposed project (e56-e59).

Weaknesses:

The researcher and evaluator bios (e37) resumes do not include experience conducting RCT (e51-54).

Reader's Score: 3

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

Strengths:

The evaluation includes fidelity of implementation as well as qualitative data from students and role models that will inform feedback, as well as scale-up efforts (e21). Ongoing team meetings are described (e32) as the forum for continuous feedback. The research/evaluation is conducted by independent parties.

Sub

Weaknesses:

No weaknesses noted

Reader's Score: 10

5. (5) 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 project will include role model training manuals (e33) and other materials available online (e39), and will disseminate to other practitioners through a website, results will be submitted to WWC (e35), and peer-reviewed journal articles are proposed (e35).

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Selection Criteria - Quality of the Project Evaluation

1. The Secretary considers the quality of the evaluation to be conducted of the proposed project based on the following factors:

Reader's Score: 23

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:

A random control trial (Objective 1.1 p.e21, further info p.e31. e41) is proposed, and the evaluation will assess fidelity of implementation (Objective 1.2) (e21). The partnership with 6 rural school districts serves as the sampling frame. The study anticipates 231 intervention/comparison group participants (e22), with two cohorts (middle school, high school) that will be followed for three years. HLM will be used to analyze data (e42).

Weaknesses:

Student attrition is discussed (e41) and set at 10% optimistic boundary. The lack of identified/committed role models is a concern that the study will include high attrition. The total numbers served each year (e147) and the cohorts that will be included in the study is not clear (e23).

The Performance Measures (e147) indicate that 480 students, scaling up to 2,645 per year, will be served each year, but the study only includes 210. The discrepancy in study cohorts and total numbers served makes it unclear how the random sample will be drawn – and if the numbers served includes students who will not receive mentoring.

Reader's Score: 14

Sub

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

Strengths:

The proposed research includes an implementation study, and academic achievement outcomes measured by standardized state assessments. (e41-42). A complete listing of measures aligned to proposed analysis procedures is provided (e87-e89).

Weaknesses:

The plan did not clearly discuss the threshold for implementation regarding how many mentoring sessions a student and his/her mentor need to participate in (e40– e44).

Reader's Score: 4

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

Strengths:

The RCT will utilize standard state assessments to conduct hierarchical linear modeling to assess academic achievement outcomes (e44). Qualitative data will be collected to assist in providing formative evaluation, and all GRPA measures are addressed (e44).

Weaknesses:

No weaknesses noted

Reader's Score: 5

Priority Questions

CPP - Competitive Preference Priority 1

1. Competitive Preference Priority 1: Computer Science

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 to provide role models is targeted at improving math and science achievement, with one anticipated outcome of enrollment in an advanced computer science course in high school (e151).

Weaknesses:

Participation in rigorous computer science coursework is not the primary goal, and not all students may choose to enroll in high school courses.

Reader's Score: 4

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Status: Submitted

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Technical Review Coversheet

Applicant: Educational Service District 105 (S411C200062)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of Project Design		
1. Quality of Project Design	40	39
Sub Total	40	39
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	35	32
Sub Total	35	32
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	25
Sub Total	25	25
Priority Questions		
CPP		
Competitive Preference Priority 1		
1. Computer Science	5	5
Sub Total	5	5
Total	105	101

Technical Review Form

Panel #6 - FY20 EIR Early Phase- AP2 STEM - 6: 84.411C

Reader #2: *****

Applicant: Educational Service District 105 (S411C200062)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project based on the following factors:

Reader's Score: 39

Sub

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

Strengths:

Proposal does an outstanding job of describing goals, objectives and outcomes to meet the needs of diverse learners, albeit language or special needs (see e10-e11), capturing anticipated number of students served and grade levels, with a projected increase in number of students to be served (see e15)

Weaknesses:

No weaknesses noted.

Reader's Score: 10

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

Strengths:

Applicant specifically begins identifying target population using GEPA, see e10-e11. Proposal further highlights research and justification for the use of a conceptual framework to support its planned strategy for addressing the needs of its target population, utilizing a student demographics table, see e22-e23, and research data points indicating the lack of mentors in the field and farmworker awareness.

Weaknesses:

The STEM/CS Role Model program appears to be a female-oriented learning model, see "brief project description" (e15), which eliminates the positive contributions, impact and benefits of co-ed learning between both boys and girls. Furthermore, the proposal mentions the lack of mentors and farmworker awareness, but misses an opportunity to address the learning needs of the students to be served.

Reader's Score: 9

3. (3) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice.

Sub

Strengths:

Clearly articulated references to current research, starting from the proposal Abstract (see e15) and continuing through the assigned sectional portions of the proposal application which outlines a full range of research to ensure an effective program practice, see e20-e31.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

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

Strengths:

The proposal, through it's "The Solution" provides a visionary view of how teaching element will contribute to the increased knowledge or understanding of educational problems, issues (see e26). Proposed study, see e31, also serves as a "potential contribution" of the proposed project designed to increase knowledge or understanding for students to be served.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

Resources and Quality of Management Plan - Resources and Quality of Management Plan

1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project based on the following factors:

Reader's Score: 32

Sub

1. (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 management plan was well-thought out and nicely detailed, and incorporated a hierarchal matrix to orderly outline the managerial and reporting structure among program leadership and relationship to partnering agencies, see e32, coupled with an organizational work plan timeline to capture milestones, see e33-e35. See Appendix B: Resumes of Key Personnel and Job Descriptions, e48-e60.

Weaknesses:

Budget is heavily weighted toward staff salaries, minimally to program and students. See five-year budget, e115. The proposal mentions internet connectivity, but lacks a clearly defined outline concerning WIFI connectivity for planned laptop purchases to be used by program participants e34, e119, e134.

Sub

Reader's Score: 9

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

Strengths:

Itemized descriptions of “reasonable costs” associated with the planned program proposal, highlighting it’s “zero-based budgeting” model (see e35) and the annual per student costs on e36. Matching contributions suggest program buy-in from other agencies, see Appendix G, e77-e82. Also, the five-year program costs are fairly high on the staff side, but well balanced among secondary staffers, equipment and other program areas, see e115-e146.

Weaknesses:

Some areas associate with costs over the life cycle of the grant are concerning, like key personnel salaries (e115), and additional areas, like travel, contracted services, computers and other sections listed in the budget narrative, see e116-e146 are concerning.

Reader's Score: 4

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

Strengths:

Proposal categorically listed key personnel, their credentials and qualifications to serve in indicated staff and leadership roles, see e36-e38. Furthermore, key personnel listed their professionals resumes on e49-e54 which offers relevant experience by listed individuals to lead the proposed program. Job postings suggest their will be a valid effort to securing the best personnel to fulfill support staff roles, see e55-e60.

Weaknesses:

Although the proposal speaks of “disabilities” of student in the GEPA, e11, it failed to mention a teaching corps among the staff delivering the curriculum to students with possible IEPs and different forms of learning disabilities. Among the qualifications would be licensure in the SPED space for individuals providing instruction to specific population of learners.

Reader's Score: 4

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

Strengths:

Provided a USDOE 21st Century Learning Centers (2010) flow chart that easily depicts their plans for a feedback and continuous improvement process, along with language to support their learning center model, see e38.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

5. (5) 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.

Sub

Strengths:

Thoughtful plan to share results, where “findings will be disseminated at all the ESD 105 service area and presented at national research-, practice-, and policy-focused conferences” having identified leading organizations like “the American Educational Research Association (AERA), National Rural Education Association (NREA), National Council for Community and Education Partnerships (NCCEP) GEAR UP, National Association of State Directors of Migrant Education (NASDME), and the Association of Educational Service Agencies (AESAs)” and “goal is to reach the largest amount of schools and service providers that serve farmworker students in the US” (e39).

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Selection Criteria - Quality of the Project Evaluation

- 1. The Secretary considers the quality of the evaluation to be conducted of the proposed project based on the following factors:**

Reader's Score: 25

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:

Proposal mentions the standards, clearly stating “there is no research that meets What Works Clearinghouse (WWC) standards on the impact role models have on farmworker students” (e15), while proposing to “implement, refine, and evaluate the impact of a Virtual STEM/CS Role Model program that targets low-income, high-needs, rural farmworker students using a randomized control trial (RCT)” (e15) More details of the WWC are captured on e40.

Weaknesses:

No weaknesses noted.

Reader's Score: 15

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

Strengths:

By listing randomized control trials (e41) and a qualitative case study design (e42), the applicant presents a framework that articulates key project components, mediators and outcomes and a “program evaluation to measure progress and achievement of project specific outcomes” (e44).

Sub

Weaknesses:

No weaknesses noted.

Reader's Score: 5

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

Strengths:

The applicant lists instruments that will provide valid and reliable performance data, along with “a high-quality statistical approach using randomized control trial procedures and HLM techniques to understand intervention impact” (e44).

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Priority Questions

CPP - Competitive Preference Priority 1

1. Competitive Preference Priority 1: Computer Science

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:

Captured in details, using categorical tables with two defined goals and measuring instruments (e20-e21), plus a plan for addressing the absolute priorities and competitive preference priority (e22).

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Status: Submitted

Last Updated: 10/27/2020 06:20 PM

Status: Submitted

Last Updated: 10/29/2020 09:47 PM

Technical Review Coversheet

Applicant: Educational Service District 105 (S411C200062)

Reader #4: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of Project Design		
1. Quality of Project Design	40	40
Sub Total	40	40
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	35	34
Sub Total	35	34
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	25
Sub Total	25	25
Priority Questions		
CPP		
Competitive Preference Priority 1		
1. Computer Science	5	0
Sub Total	5	0
Total	105	99

Technical Review Form

Panel #6 - FY20 EIR Early Phase- AP2 STEM - 6: 84.411C

Reader #4: *****

Applicant: Educational Service District 105 (S411C200062)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project based on the following factors:

Reader's Score: 40

Sub

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

Strengths:

Goals, objectives and outcomes are clearly specified and measurable in this application. This indicates that extensive communication in planning has occurred. The management plan contained within this application includes clearly defined responsibilities, timelines and milestones. This increases the probability of successfully accomplishing the project tasks (e21-e22, e32-e35, e36-e37, e49-60).

Weaknesses:

No weakness noted.

Reader's Score: 10

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

Strengths:

This application targets multiple populations, rural, low-income, high need farmworkers; an effort has been made to make accommodations for ELL, LGBT, blind and other disabled students. This indicates an intentional effort of non-exclusivity and access for many students (e10 – e11).

Weaknesses:

No weakness noted.

Reader's Score: 10

3. (3) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice.

Sub

Strengths:

This application states research studies and effective practices throughout the narratives. The research discusses the generalized lack of focus on STEM and computer science careers for all type of students in educational institutions but does refer to successful, effective practices within the narrative (e110 – e113).

Weaknesses:

No weakness noted.

Reader's Score: 10

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

Strengths:

This application has the potential to provide data on rural farmworkers concerning STEM and computer science careers. According to the research stated in this narrative, rural populations has under-researched traditionally with these two contexts, STEM and computer science (e30-e31, e110-e113).

Weaknesses:

No weakness noted.

Reader's Score: 10

Resources and Quality of Management Plan - Resources and Quality of Management Plan

1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project based on the following factors:

Reader's Score: 34

Sub

1. (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:

A management plan contained within this application. Specific goals with identified measuring instruments are presented. The narrative states that traditional management functions of planning, reporting, management of information, human resources, evaluation and continuous improvement mechanisms will be adhered to by representatives of the partnering schools and the evaluation team. A graphic indicating the management and operational organizational structure is presented in the narrative. A detailed timeline is also presented (e21-e22, e32-e35, e36-e37, e49-60).

Weaknesses:

No weakness noted.

Reader's Score: 10

Sub

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

Strengths:

This application states that they have used 105's budget development experience, zero-based budgeting techniques as well as researching and analysis of previously awarded and posted grants for the budgetary determinations for this application (e35-e36 and e116-e146).

Weaknesses:

No weakness noted.

Reader's Score: 5

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

Strengths:

This application includes resumes/CVs for some key personnel, indicating a combined sixty years in the educational field. Their background information lists research, grant writing and/or grant management experiences. One of the key personnel has extensive background working with rural populations and holds a What Works Clearinghouse (WWC) Certification for Group Design IES standards training. Other personnel are identified along with their roles and their duties elaborated upon (e36-e37, e49-e54, e55-60).

Weaknesses:

This application lists other personnel descriptions that appear to have not been hired at the time of this grant submission; their hiring appears to be tied to the successful awarding of the grant (e55-e60).

Reader's Score: 4

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

Strengths:

This application includes methods for obtaining feedback and continuous improvement stating that it has adopted the Continuous Improvement Management (CIM) Process Model developed by the U.S. Department of Education for the 21st Century Community Learning Centers Program. The narrative indicates that the CI major functions have been included in the Work Plan. They also indicate that ESD105 has been successful using the CI model with other grants (e38).

Weaknesses:

No weakness noted.

Reader's Score: 10

5. (5) 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:

This application has a plan in place to disseminate the research data obtained in this program. EDS 105 plans to use an already established infrastructure to disseminated results to all EDS105 service areas. The authors will create an online portal, especially dedicated to the project and its results. This portal will provide open source materials to

Sub

interested practitioners, policymakers, and researchers. They also indicate the project will develop a toolkit, implementation training videos and demonstrations besides research evidence. The authors intend to disseminate critical findings to the Association of Educational Service Districts (AESD), which is a consortium of all nine educational service districts in the State of Washington and Washington STEM Network. There is an intention as well to publish findings in multiple journals (e39).

Weaknesses:

No weakness noted.

Reader's Score: 5

Selection Criteria - Quality of the Project Evaluation

- 1. The Secretary considers the quality of the evaluation to be conducted of the proposed project based on the following factors:**

Reader's Score: 25

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:

This project will utilize both qualitative and quantitative methods of research. It will follow students over time, use randomization techniques and will conduct a power analysis to ensure appropriate level to detect large effect size pursuant to WWC standards as well as capturing student experiences using focus groups and interviews. Additionally, one of the key personnel holds a What Works Clearinghouse (WWC) Certification for Group Design IES standards training (e40-e44, e36, e86-e90).

Weaknesses:

No weakness noted.

Reader's Score: 15

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

Strengths:

The evaluation plan and performance measures are clearly articulated within this application. Stated methods of evaluation include a mixed- method evaluation with a randomized control trial for two cohorts of 6th and 9th grade students based upon distinct quantitative data. Virtual focus groups and interviews will also be included. The attrition rate is anticipated to be 10%. Hierarchical Linear Modeling (HLM) procedures will be employed if needed (e86-e90).

Sub

Weaknesses:

No weakness noted.

Reader's Score: 5

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

Strengths:

The methods of gathering data and the subsequent evaluative techniques are based in long standing, established research practices. Summative and formative evaluations as well as very specific performance measures are clearly indicated and if conducted with fidelity, will produce valid and reliable performance data on proposed outcomes (e86-e89).

Weaknesses:

No weakness noted.

Reader's Score: 5

Priority Questions

CPP - Competitive Preference Priority 1

1. Competitive Preference Priority 1: Computer Science

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:

No strengths noted.

Weaknesses:

This proposal focuses on role models in computer science and/or STEM, and improving a students' opinion on obtaining a computer science and/or STEM career, not on actual computer course-work, for example coding; although it does state that a 30 minute hands-on computer activity would take place (e29, e31).

Reader's Score: 0

Status: Submitted
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