

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

Status: Submitted

Last Updated: 09/04/2018 11:34 AM

Technical Review Coversheet

Applicant: Urban Arts Partnership (U411C180192)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	20	16
Total	20	16

Technical Review Form

Panel #8 - Early Phase Tier 2 - 8: 84.411C

Reader #2: *****

Applicant: Urban Arts Partnership (U411C180192)

Questions

Selection Criteria - Quality of the Project Evaluation

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

- (1) The 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 the NIA).
- (2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.
- (3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.
- (4) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.

Strengths:

Urban Arts proposes a quasi-experimental design with a comparison condition and presents a rationale for power that appears to be generalizable. The research design and proposed research questions and output/outcomes are clear. Base line equivalents between the treatment and comparison group will be matched on CS credits, standardized math test scores prior to 10th grade, eligibility for free/reduced price lunch, ELL status and Special Education status. Mediators and moderators are mentioned and delineated in the research design. The use of AP Computer Science exam scores provides valid and reliable performance data for students in the program. Additionally, qualitative methods such as individual interviews with teachers and other program stakeholders will be conducted and may provide additional contextual information. The research design as described is eligible to meet the WWC standards with reservations.

Weaknesses:

There is no mention of attrition or mobility of students within the treatment and comparison groups. Measurable thresholds for objectives are not provided. The exact statistical method for detecting mediators and moderators is not presented. Methods for analyzing qualitative data are not provided. While the research questions, outputs and outcomes are provided, not providing measurable thresholds for the outcomes and lack of discussion around detecting mediators and moderators will make it difficult to replicate in other settings.

Reader's Score: 16

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Technical Review Coversheet

Applicant: Urban Arts Partnership (U411C180192)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	20	16
Total	20	16

Technical Review Form

Panel #8 - Early Phase Tier 2 - 8: 84.411C

Reader #1: *****

Applicant: Urban Arts Partnership (U411C180192)

Questions

Selection Criteria - Quality of the Project Evaluation

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

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

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

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

Strengths:

1) The establishment of clear criteria to create a fidelity score (p. 1 of Appendix H on the Evaluation Plan) and identify acceptable implementation thresholds (two-thirds of maximum participation, dosage, and consistency) sets forth a clear, objective pathway to determine implementation fidelity.

2) The plan to examine the extent to which the program is implemented with fidelity coupled with the feasibility of replication (RQ1) is thorough, detailed, and focuses on key outcomes. For instance, the inclusion of quarterly reports to update program stakeholders consistently on progress toward outcomes using Ghost School records as well as qualitative data such as interviews and surveys allows the evaluation team to monitor implementation fidelity and record data relevant to replicating the program.

3) The sampling plan includes students from multiple school sites and has sufficiently large sample sizes (n=3,600 each for treatment and comparison groups) to detect significant effects of program effectiveness. The discussion of methods used to establish baseline equivalency of students is detailed and provides acceptable statistical thresholds for between-group differences (not greater than .25 SD) as well as steps that will be taken to adjust the models in order to meet these thresholds. These components and steps in the evaluation mean that this design is likely to meet WWC standards with reservations.

4) The inclusion of an effect size (.36) with an explanation of which students are included, the context under which this impact is measured, and accounting for school-level clustering, with assumptions of power, alpha, and ICC indicates a plan to thoroughly test the program's effectiveness.

Weaknesses:

1) The matched comparison sample comes from 102 schools across the district and is being compared to the 17 treatment schools. While there is mention that cohorts will be matched on school-level variables, there is no mention of what these variables are. Comparing cohorts of students from such a wide variety of schools leaves the possibility of school-level variations that impact baseline equivalency, yet there is no mention of which variables will be used to match cohorts.

2) To examine teachers' backgrounds and experiences as moderators of the program's effectiveness, the proposal identifies two varying characteristics of teachers: a) low, moderate, high experience with CS, and b) value assigned to using game design to learn CS. However, there are many other factors that may influence student and teacher outcomes

(e.g., teaching style, pedagogy, etc.) that are not accounted for as potential moderators.

3) The application does not address attrition or how the evaluation will correct for attrition bias in the analysis. In a setting such as New York, this is an important consideration as students tend to move and have increased mobility in a large city.

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