U.S. Department of Education - EDCAPS G5-Technical Review Form (New) Status: Submitted Last Updated: 07/19/2019 11:07 AM

Technical Review Coversheet

Applicant:Project SYNCERE (U411C190108)Reader #1:**********

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

Technical Review Form

Panel #6 - EIR Early Phase Tier 2 - 12: 84.411C

Reader #1: *********
Applicant: Project SYNCERE (U411C190108)

Questions

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:

(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).

(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:

The applicant addresses each of the evaluation criteria very well. The evaluation plan is clearly outlined in the goals, objectives and outcomes of the project in Table 1 pp. e-33-34 and the logic model in Appendix G.

The applicant proposes a very strong evaluation design that addresses each of the evaluation criteria. The comparison group matching methods are clearly described on page e-42. The evaluation design includes both a process component to monitor implementation fidelity and provide information for continuous quality improvement. The applicant includes a power analysis that supports the potential for the impact evaluation to produce effectiveness that would meet the What Works Clearinghouse standards with reservation. The logic model includes indicators and measurable thresholds for each of the indicators. The tables in Appendix 1-A page e-90 clearly presents each of the evaluation questions along with the data sources, collection methods, timeline and analytic approaches that can easily be replicated and verified.

Weaknesses:

Since the participants are self-selected into the project there is a potential for selection bias that the project teams need to control for in the evaluation methodology. On page e-40 the applicant states "what are the long-term impacts on a select group of participants' science achievement". It is unclear how the select group will be determined and if only some of the participants' science achievement scores will be included, how will the applicant control for bias.

Reader's Score: 16

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Technical Review Coversheet

Applicant:Project SYNCERE (U411C190108)Reader #2:**********

| | | Points Possible | Points Scored |
|-----------------------------------|-----------|-----------------|---------------|
| Questions | | | |
| Selection Criteria | | | |
| Quality of the Project Evaluation | | | |
| 1. Project Evaluation | | 20 | 15 |
| | Sub Total | 20 | 15 |
| | | | |
| | Total | 20 | 15 |

Technical Review Form

Panel #6 - EIR Early Phase Tier 2 - 12: 84.411C

Reader #2: ********* Applicant: Project SYNCERE (U411C190108)

Questions

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:

(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).

(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:

• Using a difference-in-difference analysis in examining outcomes is an effective way of exploring the outcome data for differences between groups based on participation (p. e43) and will assist in determining program effects.

• The Implementation Evaluation Summary Table (Appendix I-A, p. e90-91) provides structure and defines accountability for accomplishing the evaluation tasks including specific measures to be collected and the accountable party.

• The power calculation on e41 provides for an acceptable level effect size and should reveal any significant differences between groups found in the statistical analysis.

Weaknesses:

• The mathematics achievement measure to assess outcomes (p. e54) is not identified sufficiently to determine if this is a significant gain in achievement (i.e., p. e34 improvement at 10% of the standard deviation the database/sample that will be used is not identified in regard to source or when the baseline for improvement is established.)

• The variables involved in the "pre-screen" of students to identify eligibility (p. e41) are not identified. The method of the "selection" of fifteen schools for participation in the treatment is also not provided. These variables make selection bias possible that is not controlled by propensity matching. The assurance of equivalent school/student baselines is not guaranteed and threatens compliance with WWC standards.

• Attrition and dosage are not addressed (e.g., a student is present for the classroom component but not for the Empowerment Games) p. e54

• The validity/reliability data (p. e42) from "published research" is not presented and the sources/citation for the statement are not provided.

• Longitudinal data collection (p. e43) does not address the level of subject attrition likely to occur and may impact the assessment of programmatic differences.

The discussion of "joiners" (p. e43) introduces an analysis (cluster design) that is not included in the overall

research design. A rationale for this analysis makes evaluating its purpose/validity problematic.

Reader's Score: 15

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