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

Status: Submitted

Last Updated: 07/16/2019 04:46 PM

Technical Review Coversheet

Applicant: Board of Regents, Univ of Nebraska, Univ of Nebraska-Lincoln (U411C190009)

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

		Points Possible	Points Scored
Questions			
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		20	17
	Sub Total	20	17
	Total	20	17

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Technical Review Form

Panel #2 - EIR Early Phase Tier 2 - 4: 84.411C

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

Applicant: Board of Regents, Univ of Nebraska, Univ of Nebraska-Lincoln (U411C190009)

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:

- 1. The applicant (pp.19-21) presented a comprehensive method for evaluation which in Table 10 (p. 21) reviews how the applicant's design met the criteria for sample size, randomization, attrition and baseline equivalence for What Works Clearinghouse standards for validation of methods.
- 2. The applicant (p. 21 table 10) presented findings from a previously funded grant that has actual attrition rates and baseline equivalence. This was conducting a power analysis which indicated its sample size was sufficient for its statistical analysis.
- 3. The applicant (p.23) presented a well thought out analysis procedure to result in a moderate effect sizes findings which met the What Works Clearinghouse standards for sample size and positive findings.
- 4. The applicant (p.23) provided a strong rationale for replication by utilizing a 3-phase approach utilizing qualitative data (e.g. surveys, logs and focus group follow-up analyses) in the first two phases and a quantitative analysis of student outcomes in the 3rd phase which will facilitate documentation of program findings.
- 5. The applicant (p.23-24) provided a rationale for how the extensive data collection and analysis in the third phase will provide findings on student and caregiver outcomes plus a cost-benefit analysis and potential outliners as possible regression covariates.
- 6. The applicant (p.24) provided information regarding the collection of a wide range of qualitative and quantitative program performance data reliability coefficients for the numerous surveys and scales in listed in Table 2 on pages 3-6 in the attachments which met the What Works Clearinghouse standards.
- 7. The applicant (p.24) evaluation design included a post-test and 6-month follow-up data collection which will be useful in determining long-term follow-up inferences to be made of the qualitative data (e.g. student continuing in school, parent evaluations of child, etc.) collected.
- 8. The applicant (p. 24) provided a good rational approach to determining fidelity and social validity of the qualitative data collected which met What Works Clearinghouse standards for reliability of the data elements collected for analysis.
- 9. The applicant (p.25 and in the attachments) utilized a well-conceived logic model which defines the key interventions, improving school climate, reduced referrals, and academic achievement.
- 10. The applicant (p. 25) describes several formative and summative reporting data elements and timelines to track

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and evaluate program activities which will provide for timely data reporting and feedback for corrective procedures if necessary.

Weaknesses:

- 1. The applicant (p.23) discussed the three phases of the evaluation but did not provide specific information regarding which data elements in each phase will be useful or how specific strategies (e.g. which phases or parts of the phases, which surveys, etc.) will be suitable for replication.
- 2. The applicant (pp.23-24) used vague statements such as "phase B will also include a series of qualitative studies and a large pilot study". There were no specifics of any of these studies to determine how they fit into an overall strategy.
- 3. The applicant (p. 24) will conduct a regression analysis to determine effectiveness of student and caregiver outcomes but does not present what these indicators will be or how they will be determined to meet a effectiveness threshold.
- 4. It was unclear how the applicant (pp..23-24) will incorporate the surveys, focus groups and quantitative date into an effective strategy for replication. The applicant stated Phase C will include data on the efficacy of outcomes but did not indicate any measurable program objectives. It is unclear who or what level of satisfaction or achievement will determine program success.
- 5. The applicant's evaluation plan (p.25) and the Logic Model (appendix) did not detail measurable threshold outcomes for acceptable implementation. The logic model only indicates "increased or improved" as the outcomes. It was unclear how the applicant will determine program progress (e.g. performance level of increases in Likert scales in the pre/post survey findings) sufficient to recommend implementation in a replication report.
- 6. The applicant (p. 25) did not set any baseline for measuring quantitative outcomes such as student academic performance. It was unclear how the applicant will determine the program met its objectives if there were no baseline data to determine what quantitative increase in the percentage or number to be attained above the baseline was the objective of the program.

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Technical Review Coversheet

Applicant: Board of Regents, Univ of Nebraska, Univ of Nebraska-Lincoln (U411C190009)

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

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Questions			
Selection Criteria			
Quality of the Project Evaluation			
1. Project Evaluation		20	17
	Sub Total	20	17
	Total	20	17

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Panel #2 - EIR Early Phase Tier 2 - 4: 84.411C

Reader #2: *******

Applicant: Board of Regents, Univ of Nebraska, Univ of Nebraska-Lincoln (U411C190009)

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:

Methods: The evaluation plan should meet WWC standards without reservations through the implementation of a RCT with random assignment at the student level (p20). The evaluation plan employs a randomization method that creates clusters of treatment students assigned to an interventionist, and a control group of students not selected for the participant group (p20). The proposed data analysis plan includes a partially nested design for HLM (p20-21). This approach to analysis is aligned with WWC standards and should result in reliable results. Although the randomization process will likely result in equivalent groups, to ensure analytic results are reliable, the evaluators will analyze preintervention/baseline data to determine baseline equivalence and plan to include baseline factors as mediators in the HLM if needed (Table 10, p21). The summative evaluation includes five research questions that are clearly stated and aligned with the proposed activities (p20). The evaluation is designed to investigate impact of receiving the FES intervention on student and on caregiver/family outcomes (p20). The proposed data to be collected includes data on student participation in and completion of courses, graduation rates, and surveys of non-cognitive skills (p23). All data will be collected on both treatment and control students (p21-22). A power analysis (p23) predicted that a sample of 288 students (144 treatment and 144 control) per year should be adequate to detect a moderate effect size given a conservative predicted attrition rate of 10%. If the attrition projections are accurate, an adequate sample will be achieved, and hence the results should meet WWC standards. The proposed RCT evaluation plan is based on a previously successful RCT which increases the likelihood that the sample will be successfully recruited and evaluation process will be well-implemented (p20-21).

Replication: The impact evaluation is intentionally includes students from schools throughout the state to add breadth to the diversity of moderating variables on which data will be collected (p11-12, 23). Moderating and mediating variables identified in the logic model will be assessed at various time points to track impact of each (p22). This investigation of potential differential effects should allow the evaluation team to pinpoint potential settings in which replicating the FES program could achieve the greatest impact (p23-24). The evaluation plan also includes a cost-effectiveness study to clarify the cost of replication in other settings (p24). The proposed implementation evaluation plan should result in improving and refining the FES program's activities for use beyond the study period via a formative evaluation and continuous improvement loop (p15-17). During the development phase, implementation evaluation, the evaluation team will share data with the developers at least twice a year to maximize opportunities for improvement (Table 8, p15-17). The

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evaluation team will also develop, research, and revise measures that will be specifically designed to document the success of components of the FES intervention (Table 3-5, p9-10) that can be utilized in future replications. One key outcome proposed is a fully-developed prototype of FES that will guide future implementation iterations (Table 3, p9; p23).

Reliable data: A capable independent evaluation team (UNMC) has been tasked with ensuring the data are collected and analyzed with academic rigor (p22). Reliability and validity data provided on most measures to be utilized (Appendix I, p 3-7). Some measures have been drafted or will be developed and refined based on analysis of data from two 'pilot study' samples (Table 8, p15-16, p23). If the measures to be developed and revised achieve WWC standards for validity and reliability, the analyses based on these data should be reliable and satisfy WWC standards.

Key components/outcomes: Research questions are aligned with the activities, goals, and outcomes delineated in the Logic Model (Appendix G; also Table 8, p15-16). Data will be collected at varied time points so as to track short- and long-term gains on project activities on predicted outcomes (p24).

Weaknesses:

Project will "consist of series of qualitative studies...with goal of...developing measures...refining..." This is a critical need for replication. The evaluation team of Schmid and Wang have only 1 day/month to work on this project and may not be able to complete the high-quality work needed to meet WWC standards in this time frame (p. 23).

Evaluation necessarily includes qualitative data including focus groups (p. 24). Data analysis of open-ended responses is time consuming. Table 8 suggests an approach to this will be developed to streamline this process, but the process is not delineated. It is unclear who will process these qualitative data and whether the budget accounts for the time required for this analysis. The results could suffer from incomplete processing of the data.

Information critical to understand and determine the strength of the evaluation was included in the Appendices. This information was reviewed even though the main text did not consistently guide the reader to the needed sections. Research projects of this magnitude require a level of scholarly proficiency that was not consistently evident in the evaluation section of this proposal as to meet WWC standards.

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