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

Status: Submitted

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Technical Review Coversheet

Applicant: Louisiana Department of Education (U411C190127)

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 #11 - EIR Early Phase Tier 2 - 9: 84.411C

Reader #1: *******

Applicant: Louisiana Department of Education (U411C190127)

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 proposed blocked, cluster randomized controlled trial could, if well implemented, produce evidence about the project's effectiveness and could meet the What Works Clearinghouse standards without reservations. For example, the applicant plans to randomly assign schools to offer micro-credentials (treatment) or to continue in a "business as usual" setting (control group). Randomization occurs at the school rather than teacher level to reduce the likelihood of spillover effects (p. 22). To increase statistical power, schools will be placed in blocks of four by baseline academic performance and school ethnic/racial/low income composition, and randomization will occur within each block (p. 22). The applicant offers a detailed analytic model that includes teacher and student level covariates that could affect outcomes (p. 23), as well as examine differential treatment effects (p. 24).

The evaluation can provide considerable guidance about effective strategies suitable for replication or testing in other settings. For example, the applicant will use implementation data to identify potentially effective strategies or mechanisms tied to the impact analyses that can serve as a resource for others exploring whether to try out or replicate aspects of the micro-credentials in their context (p. 18). Detailed implementation data will be used to examine how micro-credentials are developed and discuss lessons learned regarding the development process (p. 18). To address replicability and identify appropriate implementation settings, the applicant will examine how project effects vary by teacher characteristics such as gender, ethnicity, age, years of experience, and courses taught (p. 18).

The applicant provides convincing evidence that the methods of evaluation will provide valid and reliable performance data on relevant outcomes. For example, the applicant will gather implementation data on fidelity measures that can inform decisions for making improvements that would likely lead to improved outcomes (p. 18). Teacher logs and student surveys will examine proximate performance outcomes, such as the degree to which key content is implemented (p. 20-21). End of course student assessments will examine whether increased student learning occurs as a result of improved teaching (p. 21). The applicant provides sufficient data on the validity and reliability of the proposed outcomes measures including teacher logs, teacher attention, teacher retention, end of course tests, and exploratory outcomes (p. 21). The applicant provides an explicit description of performance measures and targets aligned with each project objective (Grant

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Application Form for Project Objectives and Performance Measures Information).

The evaluation plan articulates the key project components and outcomes including a detailed description of six fidelity measures with accompanying measurable thresholds for acceptable micro-credential implementation. For example, teachers will complete performance assessments and create portfolios of work to demonstrate the level of engagement in cycles of inquiry through job-embedded tasks. The threshold for implementation is 90% of 53 (p. 8), or 47 teachers (p. 19) receive "demonstrated" scores for each micro-credential and report engagement in cycles of inquiry (p. 19). The applicant clearly specifies expected outcomes and measures aligned with each project goal, along with identification of key project components (p. 8, Appendix G).

Weaknesses:

The applicant does not adequately account for possible attrition that might affect the randomness of the teacher assignment to treatment or control groups. For example, treatment teachers are invited to participate, and the applicant states that it does not expect attrition to occur because of incentives (p. 22). However, if this assumption proves faulty and teachers opt out, the applicant does not offer a plan to ensure the integrity of the random assignment (p. 22-23). The applicant mentions that baseline equivalence will be checked for students (p. 24), but no similar procedures are mentioned to ensure baseline equivalence of teachers. Power calculations are based on two teachers per school for a minimum detectable effect size (MDES) of .41 standard deviations for teacher outcomes (p. 25), but the applicant does not provide similar MDES calculations if teacher attrition occurs (p. 25).

The logic model does not specify or identify mediators (p. 12).

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Technical Review Coversheet

Applicant: Louisiana Department of Education (U411C190127)

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

| | | 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 #11 - EIR Early Phase Tier 2 - 9: 84.411C

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

Applicant: Louisiana Department of Education (U411C190127)

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:

A randomized control trial will be conducted that could meet the WWC standards without reservations, if the evaluation is well implemented (pg. 21-22). The research questions focus on project implementation as well as the effects of microcredentials on teacher and student outcomes (pg. 18). The fidelity measures for implementation table provides strong evidence that the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings (pg. 19). Thresholds for implementation were provided for content and each of the teacher components with target numbers as appropriate (pg. 19). Minimal detectable effect sizes were provided for student outcomes and teacher outcomes (pg. 25). The applicant presented evidence of validity and reliability for the data sources proposed indicating the outcomes collected should be valid and reliable (pg. 21). Details were provided for analysis of qualitative data including appropriate inter-rater reliability measures (pg. 20)

Weaknesses:

The applicant assumes in its power analysis that two teachers from each school will participate, but no information was provided for teacher attrition and mobility even though both issues were mentioned on page 24 (pg. 24-25). It is unclear if baseline equivalence will be analyzed for teachers as it will be for students. The logic model does not provide any mediators in contradiction to the statement that it does identify them (Appendix G).

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