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

Applicant: ExpandED Schools (U411C180023)
Reader #1: **********

<table>
<thead>
<tr>
<th>Questions</th>
<th>Points Possible</th>
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<tr>
<td>Selection Criteria</td>
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<td>Quality of the Project Evaluation</td>
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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:

1) The application proposes to randomly assign students to treatment or control groups, which meets the definition for RCT designs, and potentially the WWC Standards without reservations. Additionally, the inclusion of minimum detectable effect size (MDES) estimates indicates potential impact of the program, which would provide empirical evidence about its effectiveness.

2) The use of already established and tested instruments (e.g., Common Instrument, Student Computer Science Attitudes Survey, Learning Standards for Career Development and Occupational Studies) will provide reliable and valid data on the key outcomes.

3) The implementation study will not only provide information related to the fidelity of implementation of the program, but will also establish guidelines for replication in other settings and a “best practices” moving forward. Establishing implementation thresholds to measure acceptable implementation (85% of apprenticeships will offer 60 hours of programming, etc. p. 24 of narrative) provides clear objectives and guidelines related to key project components.

Weaknesses:

1) The evaluation plan explains methods and steps to assess the impact and implementation of the apprenticeship component of the program. There is no mention of an evaluation plan for the summer teaching internships that students will participate in after completing the apprenticeship. The integration of these two components into the evaluation plan is unclear and does not integrate them together as one cohesive proposal.

2) The application proposes to use a 60%/40% split between the treatment and control groups, respectively. However, there is no rationale provided for why this breakdown was chosen over a 50%/50% split. Additionally, the program will ultimately serve 320 students across 20 different schools (p. 6 of narrative), which is a small sample size for this type of study. The WWC standard for moderate evidence includes samples of 350 students or more.

3) The proposal mentions that the evaluation team will test for compositional differences in attrition rates to establish baseline equivalency, yet it is unclear what is meant by “compositional differences.”
### Technical Review Coversheet

**Applicant:** ExpandED Schools (U411C180023)  
**Reader #2:** **********

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   (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 study design is RCT in the full implementation year and examines treatment and control group baseline equivalence and sample attrition making the study eligible for meeting the WWC standards without reservations. The study measures several outputs during the implementation phase to include the percentage of apprenticeship sites offering 60 hours of programming; percentage of internship sites offering 150 hours of programming and student attendance around the apprentices and internships. Additionally, data will be collected for all students in the study through a NYC DOE data sharing agreement and includes such information as race/ethnicity, gender, age, special education status, English language learner status, and free or reduced price lunch eligibility.

The participants are measured on factors that “are robust enough to reasonably expect the hypothesized outcomes on interest, engagement, achievement, and post-secondary success… (p. 24) thus there are measurable thresholds for implementation. There is a qualitative aspect to the mixed methods design using interviews, observations, and focus groups. The instruments will be adapted in most cases to reflect the population and are modelled from instruments with valid measures. The outcomes are clear and appear to be measurable.

Weaknesses:

The intervention is participation in ES Options and the control group gets “business as usual” which may entail other internship/workplace skill building opportunities. The potential for confounded results seems great, given that the ES Options uses three common strategies: apprenticeships, project-based learning, and teaching internships. The control group may get some of these similar strategies, which may confound the RCT study. Additionally, the process for detecting mediators (SEM, regression analysis) was not specified. While the research design meets the WWC standards, the study process, baseline equivalency measures, attrition rates, random assignment process, and data collection process would need to be clearly delineated for replication in other settings.