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

Status: Submitted
Last Updated: 08/06/2021 01:15 PM

Technical Review Coversheet

Applicant: ASSISTments Foundation, Inc. (S411B210024)
Reader #1: **********

		Points Possible	**Points Scored**
Questions			
Selection Criteria			
Significance			
1. Significance		15	15
	Sub Total	15	15
Strategy to Scale			
Strategy to Scale			
1. Strategy to Scale		20	20
	Sub Total	20	20
Selection Criteria			
Quality of Project Design			
1. Project Design		20	20
Adequacy of Resources			
1. Quality of the Management		20	20
Quality of the Project Evaluation			
1. Project Evaluation		25	
	Sub Total	65	40
Priority Questions			
CPP1			
Computer Science			
1. Computer Science		5	0
	Sub Total	5	0
	Total	105	75

Technical Review Form

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

Applicant: ASSISTments Foundation, Inc. (S411B210024)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score: 15

   Sub

   1. **(1) The national significance of the proposed project.**

   Strengths:

   The applicant provided ample research and data to demonstrate the national significance of the proposed project. For example, the applicant discussed how COVID-19 exacerbated students' math performance (p. e18). According to the National Assessment of Educational Progress, 34% of United States' 8th grade students scored at or above proficiency in math (p. 18). The applicant cited the research of Kuhlfeld et al. (2020) to support COVID-19's impact on students' decline in academic performance (p. e19). This research of Kuhlfeld et al. (2020) underscores the proposed project's national significance.

   Weaknesses:

   There are no weaknesses in this section.

   Reader's Score:

   2. **(2) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

   Strengths:

   The applicant articulates the need to improve school-based tutoring through a well-designed software platform (p. e20), which has the potential to contribute to increased knowledge as students are able to successfully solve math problems. The proposed project's effective strategies are demonstrated through the software's ability to schedule tutoring sessions and connect tutors with students. (p. e20). An existing educational issue is student safety. Therefore, the applicant plans to employ an effective strategy, which is to create automated video recordings feature to deter illicit behaviors when tutors and students are in sessions (p. e20).

   Weaknesses:

   There are no weaknesses in this section.

   Reader's Score:

Strategy to Scale - Strategy to Scale

1. **The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:**

Reader's Score: 20

Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

   Strengths:

   The applicant identified three barriers and three potential strategies as outline in Exhibit 1 (p. e22). For example, the second barrier discusses the potential of volunteer tutors to be inefficient and ineffective, which prevented the applicant from reaching the level of scale that is now proposed. Therefore, the applicant plans to address this barrier by implementing the AI (artificial intelligence)-Agent and the self-directed method of tutoring (p. e23). Within this strategy, the AI-Agent would select specific problems for the tutors and students to work on during a session. This strategy is based on the applicant's prior experience working with and recognizing the Saga Tutoring Model' inefficiencies. The applicant seeks to remove the barrier of expecting volunteer tutors to take the time to identify potential problems to work on with their students prior to each session (p. e23) and instead, the applicant proposes to overcome the barrier of relying on volunteer tutors who may not have any formal training in teaching math (p. e24).

   Weaknesses:

   There are no weaknesses in this section.

   Reader's Score:

2. **(2) The mechanisms that applicant will use to broadly disseminate information on its project so as to support further development or replication.**

   Strengths:

   To support further development or replication, the applicant plans to broadly disseminate information on the TutorASSIST Program to its user base of over 5,000 schools who are currently using ASSISTments (p. e25). It has reached over 20,000 teachers last year. In addition, the applicant has the potential to broadly disseminate information on its project through its current partnerships. For example, it has developed partnerships with a state, Louisiana, and large urban school districts, Baltimore and Savannah. In addition, it has developed formal partnerships with several curriculum publishers (p. e26).

   Weaknesses:

   There are no weaknesses in this section.

   Reader's Score:

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 20

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

   Strengths:

   There is a comprehensive conceptual framework (p. e27) that accompanies the logic model (p. e119) underlying the proposed research. The logic model provides activities and participation. For instance, the tutors will participate in the tutorASSIST tutor discussion group activity (p. e119). The project design is aligned to Massachusetts Institute of Technology's Poverty Action Lab's recommendations on what makes for high-quality high-dosage tutoring (p. e26). These recommendations are based on a meta-analysis review of all of the tutoring studies (p. e27).

   Weaknesses:

   There are no weaknesses in this section.

   Reader's Score:

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

   Strengths:

   The objectives, activities, and outcomes to be achieved by the proposed project are clearly specified and measurable as shown in Exhibit 5 (pp. e28-e29). For example in Objective 3.6, the applicant plans to refine the proposed project's materials and procedures and it will be measured based on a review of the team meetings' records and annual report on revisions made to materials and procedures.

   Weaknesses:

   There are no weaknesses in this section.

   Reader's Score:

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

   Strengths:

   The design of the proposed project is appropriate to and will address the needs of the target population, which are students experiencing difficulty in mathematics. For instance, the project design will address the needs of struggling students through three distinct workflows: 1. Administrators who oversee scheduling; 2. Teachers who have students being tutored; and 3. Tutors who are executing the self-directed tutoring method with the support of AI-Agent (p. e30).

   Weaknesses:

   There are no weaknesses in this section.

   Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score: 20

   Sub

   1. **(1) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

      Strengths:

      The applicant has the partnerships (ASSISTments Foundation, WPI, WestEd, Friday Institute for Educational Innovation, and the schools) (p. e12) to bring the proposed project to scale on a national level based on their expertise in technology development, tutoring support, and rigorous and mixed-method research and evaluation (p. e33). For instance, the project director at Worcester Polytechnic Institute (WPI) has prior experience implementing a peer tutoring program. In addition, he was able to convince 70 undergraduate students to commit to 1.5 hours per week to tutoring 5th graders (p. e34). This effort will help bring this project to scale on a national level.

      Weaknesses:

      There are no weaknesses in this section.

      Reader's Score:

   2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

      Strengths:

      The management plan is adequate to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks are located in Exhibit 8 (p. e35). For instance in objective 2, a milestone of recruiting and training tutors at scale will occur in years three through five of the grant period. The responsible parties are the ASSISTments Foundation, Friday Institute for Educational Innovation, and WestEd.

      Weaknesses:

      There are no weaknesses in this section.

      Reader's Score:

   3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

      Strengths:

      The applicant plans to serve 5,280 students (p. e12) and has requested $8,000,000 (p. e36).The proposed project has the opportunity to provide tutoring service to a greater number of students at minimal costs by using volunteer tutors (p. e36). The costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.

Sub

Weaknesses:

There are no weaknesses in this section.

Reader's Score:

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:**

Reader's Score:

Sub

1. **(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 without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

    Strengths:

    Weaknesses:

    Reader's Score:

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

    Strengths:

    Weaknesses:

    Reader's Score:

3. **(3) 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:

    Weaknesses:

Sub

    Reader's Score:

Priority Questions

CPP1 - Computer Science

1. **Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).**

    Strengths:

The applicant did not apply for CPP 1.

    Weaknesses:

The applicant did not apply for CPP 1.

Reader's Score: **0**

Status: Submitted

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Technical Review Coversheet

Applicant: ASSISTments Foundation, Inc. (S411B210024)
Reader #2: **********

		Points Possible	**Points Scored**
Questions			
Selection Criteria			
Significance			
1. Significance		15	15
	Sub Total	15	15
Strategy to Scale			
Strategy to Scale			
1. Strategy to Scale		20	20
	Sub Total	20	20
Selection Criteria			
Quality of Project Design			
1. Project Design		20	20
Adequacy of Resources			
1. Quality of the Management		20	18
Quality of the Project Evaluation			
1. Project Evaluation		25	0
	Sub Total	65	38
Priority Questions			
CPP1			
Computer Science			
1. Computer Science		5	0
	Sub Total	5	0
	Total	105	73

Technical Review Form

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

Applicant: ASSISTments Foundation, Inc. (S411B210024)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score: 15

> **Sub**

1. **(1) The national significance of the proposed project.**

    Strengths:

    The applicant, ASSISTments Foundation, Inc., clearly demonstrates the potential of national significance for the proposed project. The proposed project will provide for enhanced, research-based, high-dosage tutoring, including a cost-effective use of volunteers. These efforts will address the need for students to improve skills including those lost due to isolation caused by COVID-19. The planned tutoring interventions are needed to address the low proficiency rates for children from low-income families and for students of color. The interventions will decrease the achievement gaps that are currently present. (Pages e18-20)

    Weaknesses:

    No weaknesses found.

    Reader's Score:

2. **(2) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

    Strengths:

    The applicant demonstrates clearly that there is a potential for increased knowledge and understanding of effective strategies for connecting tutors with students and with teachers to provide immediate feedback as students work on independent practice. This immediate feedback provided to students will have a significant impact on student performance and makes the feedback a potential contribution as an effective strategy. This project will provide for communicating with the classroom teacher, the tutor and create a specific path for students to improve needed skills. (Page e21)

    Weaknesses:

    No weaknesses were found.

Strategy to Scale - Strategy to Scale

1. **The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:**

Reader's Score: 20

Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

   Strengths:

   The applicant demonstrates specific, appropriate strategies that address each of the three key barriers identified that have kept the applicant from reaching the level of scale in the past. Those barriers are the high cost of hiring licensed teachers to tutor students, the need to provide efficient and effective tutoring that is aligned to core instruction; and the extra time that is invested in oversight and administration of a volunteer tutoring project. To address the high cost of hiring licensed teachers to tutor, the project will support schools in implementing a volunteer tutoring program. To address the need to provide efficient and effective tutoring that is aligned to core instruction, the project will implement an artificial intelligence agent (AI-agent) intervention and provide for self-directed methods of tutoring. The diagrams in Appendix J clearly define how the process will work to provide immediate, timely feedback to students, teachers and tutors. To address the barrier of the extra time that is invested in oversight and administration of a volunteer tutoring component, the project will develop supportive tools that are effective and easy to use. (Page e21-25 and Appendix J)

   Weaknesses:

   No weaknesses were found.

   Reader's Score:

2. **(2) The mechanisms that applicant will use to broadly disseminate information on its project so as to support further development or replication.**

   Strengths:

   The applicant demonstrates several effective mechanisms that will be used to appropriately disseminate information on the proposed project. For example, the use of the ASSISTments user base will provide access to program elements to over 5,000 schools that are already using that resource. The applicant indicates that the use of advertising, strategic communications, and partnerships will be used to expand the market for strategies planned. (Page e25-26) The proposed project objective four effectively seeks to disseminate findings and support sustainability. This effort will include presentations at conferences, blog posts, webinars and publications. (Page e29)

Sub

Weaknesses:
No weaknesses were found.

Reader's Score:

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score: 20

Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

Strengths:
The proposed project design is modeled after the Poverty Action Lab (J-PAL) conceptual framework. This model is based on a meta-analysis review of several tutoring studies supporting the effectiveness of the model. The framework includes five specific guidelines for successful interventions to support tutoring. The framework offers specific recommendations addressing each of the five components. This framework will provide for high quality, high dosage tutoring experiences for students, teachers and tutors. (Page e27) This framework is supported by the logic model. The logic model outlines clearly the activities and outputs of the project that are directed to the outcome of increased student learning in mathematics. (Page 119)

Weaknesses:
No weaknesses were found.

Reader's Score:

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

Strengths:
The proposed project goals, objectives and outcomes are clearly specified and measurable. Those elements are also aligned appropriately. For example, Objective 1.3 aims to create the AI-agent and the SNS (similar but not same problems) that frequently improve the inputs and outputs of the AI-Agent to support the self-directed tutoring method. This outcome will be measured by the number of SNS problems created and the satisfaction of the tutors and students using those problems. These elements connect back to the goals of the project that is to increase mathematics learning which increases the likelihood that the goals and objectives will be achieved. (Page e27-29) The objectives are ambitious and achievable.

Sub

   Weaknesses:

No weaknesses were found.

   Reader's Score:

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

   Strengths:

The proposed project design will address three key target populations including administrators, tutors, and students. Administrators will need support to manage the tutoring programming. To address the needs of school administrators, an implementation guide and initial training will occur. That will be followed by assistance for the school administrator to identify students to be tutored and monitor attendance and activities. The needs of the tutors is targeted training. Recruited tutors will be trained to understand the workings of TutorASSIST and to apply that to the tutoring that they complete with students. Students' needs include specific tutoring on skills that have been identified as not being met. These students' needs are addressed through the focused tutoring. (Pages e30-33)

   Weaknesses:

No weaknesses were found.

   Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score: 18

   Sub

   1. **(1) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

   Strengths:

The applicant's capacity to bring the proposed project to scale on a national or regional level, is clearly supported by the quality of the key personnel. The key personnel have relevant training and experiences in such areas as teaching, coaching, tutoring, computer science, evaluation, and grant administration that will contribute to the applicant's capacity to bring the proposed project to scale. For example, the executive director has a strong background in teaching and coaching middle school math and has had experience as a tutor. The organization has previous grant administrative experience and will rely on those experiences to bring this project to scale. (Page e33-34 and resumes) The applicant uses exhibit seven, Timeline, to identify who is responsible for each major component of the project. Those responsible include the Pilot School Administrators and the cooperating teachers. This delegation of duties will ensure that the project will have the management capacity to bring the project to scale. (Page e35)

Sub

Weaknesses:

No weaknesses were found.

Reader's Score:

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

    Strengths:

    The management plan includes clearly defined responsibilities, timelines, and milestones for accomplishing many of the project tasks. The milestones are clearly linked to the objectives of the proposed project. Meeting the timelines will ensure that the key elements of the project will be completed on time and within budget. For example, to address objective one, a milestone will be to create training for volunteer tutors and supports for administrators. This is planned for the Spring of the first year and throughout year one and two. It will be the responsibility of Friday Institute, the ASSISTments Foundation, and WestED. (Pages e34-35)

    Weaknesses:

    The management plan does not clearly demonstrate the timeline for the activities that are delegated to the building administrator and the classroom teachers. For example, the delegated tasks include the building administrator working with classroom teachers to select the students to be tutored, recording which students are selected, and providing tools to match the students with tutors. The administrator will also monitor attendance and activity of the tutors. In addition, classroom teachers are tasked with aligning their curriculum to the AI-agent platform. Without a clear time that corresponds to these tasks, it is not clear how much time will be needed and how these tasks will be managed and completed on time and within budget. (Pages e28-30)

    Reader's Score:

3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

    Strengths:

    The costs are somewhat reasonable in relationship to the objectives and design of the proposed project. The project will serve 5,280 students with a nearly eight million-dollar budget. That is a reasonable amount per student cost. (Page e12 and e36). The salaries of lead personnel, the costs of IT work, and the cost of the evaluation, are reasonable. For example, the federal budget for personnel is $381,635 for year one of the project. The contracted services for the independent evaluator contract are $445,305 for year five. (Budget Narrative)

    Weaknesses:

    The applicant does not justify the low amount of stipends for schools. For example, it is not clear if the $500.00 per school is sufficient to encourage schools and building administrators to support the complex design of the proposed project and the responsibilities required of the school leaders. It is unclear how the $500 stipends will contribute to the achieving the proposed objectives (Budget Narrative)

Sub

    Reader's Score:

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:**

Reader's Score: **0**

    Sub

1. **(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 without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

    Strengths:

    N/A

    Weaknesses:

    N/A

    Reader's Score:

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

    Strengths:

    N/A

    Weaknesses:

    N/A

    Reader's Score:

3. **(3) 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:

    N/A

    Weaknesses:

    N/A

    Reader's Score:

Priority Questions

CPP1 - Computer Science

1. **Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).**

Strengths:

The applicant did not apply for this priority.

Weaknesses:

The applicant did not apply for this priority.

Reader's Score: 0

Status: Submitted

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Technical Review Coversheet

Applicant: ASSISTments Foundation, Inc. (S411B210024)
Reader #3:   **********

		Points Possible	**Points Scored**
Questions			
Selection Criteria			
Significance			
1. Significance		15	
	Sub Total	15	
Strategy to Scale			
Strategy to Scale			
1. Strategy to Scale		20	
	Sub Total	20	
Selection Criteria			
Quality of Project Design			
1. Project Design		20	
Adequacy of Resources			
1. Quality of the Management		20	
Quality of the Project Evaluation			
1. Project Evaluation		25	25
	Sub Total	65	25
Priority Questions			
CPP1			
Computer Science			
1. Computer Science		5	
	Sub Total	5	
	Total	105	25

Panel #4 - EIR Mid-Phase - 4: 84.411B

Reader #3:   **********

Applicant: ASSISTments Foundation, Inc. (S411B210024)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score:

Sub

1. **(1) The national significance of the proposed project.**

   Strengths:

   Weaknesses:

   Reader's Score:

2. **(2) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

   Strengths:

   Weaknesses:

   Reader's Score:

Strategy to Scale - Strategy to Scale

1. **The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:**

Reader's Score:

   Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

   Strengths:

   Weaknesses:

   Reader's Score:

2. **(2) The mechanisms that applicant will use to broadly disseminate information on its project so as to support further development or replication.**

   Strengths:

   Weaknesses:

   Reader's Score:

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score:

   Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

   Strengths:

   Weaknesses:

   Reader's Score:

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

Sub

   Strengths:

   Weaknesses:

   Reader's Score:

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

   Strengths:

   Weaknesses:

   Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score:

   Sub

1. **(1) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

      Strengths:

      Weaknesses:

      Reader's Score:

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

   Strengths:

Sub

    Weaknesses:

    Reader's Score:

3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

    Strengths:

    Weaknesses:

    Reader's Score:

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:**

Reader's Score: **25**

    Sub

1. **(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 without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

    Strengths:

    The study design proposed a student-level randomized control trial (RCT) where the intervention group has immediate access to the intervention and control group has delayed access. It has the potential to yield evidence that meets What Works Clearinghouse (WWC) standards without reservation. The authors are proposing student assignments to treatment conditions at the start of the school year thus minimizing threats to treatment contamination and/or attrition as they are also proposing an intent to treat (ITT) model (pp. e37-38).

    Weaknesses:

    None

    Reader's Score:

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

    Strengths:

    Fidelity assessments (p. e41) will be examined and mapped to contextual factors of the study setting (p. e40). More specifically, implementation fidelity will be measured at the intervention component level (p. e41). These methods are sound for yielding guidance on effective strategies for the purposes of replication in other settings.

Sub

    Weaknesses:

    None

    Reader's Score:

3. **(3) 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 conceptual framework that undergirds the proposed intervention is based on the framework for which this proposed study is intending to replicate and scale (p. e27). Outcomes and measures for both the formative and summative evaluation questions are clearly explicated (pp. e29-30).

    Weaknesses:

    None

    Reader's Score:

Priority Questions

CPP1 - Computer Science

1. **Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).**

    Strengths:

    Weaknesses:

Reader's Score:

Status: Submitted
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Technical Review Coversheet

Applicant: ASSISTments Foundation, Inc. (S411B210024)
Reader #4:   **********

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	
Sub Total	15	
Strategy to Scale		
Strategy to Scale		
1. Strategy to Scale	20	
Sub Total	20	
Selection Criteria		
Quality of Project Design		
1. Project Design	20	
Adequacy of Resources		
1. Quality of the Management	20	
Quality of the Project Evaluation		
1. Project Evaluation	25	25
Sub Total	65	25
Priority Questions		
CPP1		
Computer Science		
1. Computer Science	5	
Sub Total	5	
Total	105	25

Technical Review Form

Reader #4:   **********

Applicant: ASSISTments Foundation, Inc. (S411B210024)

Questions

Selection Criteria - Significance

1. **The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:**

Reader's Score:

   Sub

  1. **(1) The national significance of the proposed project.**

    Strengths:

    Weaknesses:

    Reader's Score:

  2. **(2) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.**

    Strengths:

    Weaknesses:

    Reader's Score:

Strategy to Scale - Strategy to Scale

1. **The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:**

Reader's Score:

    Sub

1. **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

    Strengths:

    Weaknesses:

    Reader's Score:

2. **(2) The mechanisms that applicant will use to broadly disseminate information on its project so as to support further development or replication.**

    Strengths:

    Weaknesses:

    Reader's Score:

Selection Criteria - Quality of Project Design

1. **The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:**

Reader's Score:

    Sub

1. **(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

    Strengths:

    Weaknesses:

    Reader's Score:

2. **(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**

Sub

    Strengths:

    Weaknesses:

    Reader's Score:

3. **(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.**

    Strengths:

    Weaknesses:

    Reader's Score:

Selection Criteria - Adequacy of Resources

1. **The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

Reader's Score:

    Sub

1. **(1) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

    Strengths:

    Weaknesses:

    Reader's Score:

2. **(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

    Strengths:

Sub

    Weaknesses:

    Reader's Score:

3. **(3) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

    Strengths:

    Weaknesses:

    Reader's Score:

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:**

Reader's Score: **25**

    Sub

1. **(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 without reservations as described in the What Works Clearinghouse Handbook (as defined in 34 CFR 77.1(c)).**

    Strengths:

    The applicant has arranged for an independent evaluation of program activities and outcomes with WestEd (p. e34). The use of an independent evaluator is a strength because this will help minimize bias in the evaluation data collection, analyses, and interpretation of findings. The evaluation plan calls for a randomized control trial (RCT) design where students are assigned to either treatment condition or delayed treatment with business-as-usual control (p. e38-e39). The applicant specifies that steps will be taken to protect against contamination and preserve the design's ability to provide evidence for the intervention's impact on individual students (p. e46). In addition, the applicant outlines steps to track both overall and differential attrition (p. e39, p. e179).

    The application provides a detailed power analysis (p. e39. P. e179) that offers a clear explanation of how the study is powered to determine effects of treatment. Assumptions outlined in the power analysis are clear and reasonable. The plan outlined by the applicant would allow for a study design that meets WWC standards without reservation.

    Weaknesses:

    No weaknesses identified for component 1.

    Reader's Score:

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

   Strengths:

   The evaluation plan includes components that would allow the applicant to report on effective strategies and replication in other settings. The evaluation questions outlined on page e38 include multiple data sources (e.g., standardized tests of student mathematics achievement, computer logs of tutoring session interactions). The applicant details both formative and summative evaluation activities (p. e36- e38) with different evaluation leadership team members taking the lead on these two domains (e.g., p. e36, Dr. Jodi Davenport will lead formative evaluation activities). This deep expertise in various evaluation domains is a particular strength of this application.

   The evaluation team will conduct interviews with school administrators (p. e40) to document the context for implementation. This will allow for a clearer understanding of obstacles and opportunities for implementation. The work to gather feedback on context (e.g., district priorities, community factors) is a particular strength of this application.

   Weaknesses:

   No weaknesses identified for component 2.

   Reader's Score:

3. **(3) 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 evaluation plan is clear, and each facet of the program is included in the planned evaluation activities. The evaluation team has outlined a focused set of evaluation questions (p. e38) and logic model (p. e119). The application outlines a plan for investigating implementation using a five-step process proposed by Nelson et al., (p. 2014) and covering four categories of implementation fidelity; these four categories focus on adherence, exposure, quality of delivery, and uptake. Specific thresholds are provided (e.g., tutors deliver at least 75% of expected sessions).

   Weaknesses:

   No weaknesses identified for component 3.

   Reader's Score:

Priority Questions

CPP1 - Computer Science

1. **Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).**

Strengths:

Weaknesses:

Reader's Score:

Status: Submitted
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