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

Status: Submitted

Last Updated: 06/29/2018 12:48 AM

Technical Review Coversheet

Applicant: WestEd (U423A180020)

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

		Points Possible	Points Scored
Questions			
Selection Criteria			
Quality of Project Design			
1. Project Design		35	35
Significance			
1. Significance		20	20
Quality of the Management Plan			
1. Management Plan		25	25
Quality of the Project Evaluation			
1. Project Evaluation		20	20
	Sub Total	100	100
Priority Questions			
Competitive Preference Priority			
Promoting STEM Education/Computer Science			
1. CPP1		3	3
	Sub Total	3	3
	Total	103	103

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Technical Review Form

Panel #5 - Supporting Effective Educator Development - 5: 84.423A

Reader #1: *******

Applicant: WestEd (U423A180020)

Questions

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:
 - (1) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.
 - (2) The extent to which the training or Professional Development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.
 - (3) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.
 - (4) The extent to which the services to be provided by the proposed project are focused on those with greatest needs.
 - (5) 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 strength of this proposed project is focused on providing Reading Apprenticeship professional learning, which aims to improve student literacy and subject area learning across disciplines. A particular strength of this proposal is the emphasis on science classrooms, to 1,500 middle and high school teachers, 500 of whom will be science and engineering teachers.

Another strength of this application was the stated goal of improving teaching effectiveness by enacting the Reading Apprenticeship framework (focusing teachers on social, personal, cognitive, and knowledge-building) and integrating disciplinary literacy into their content area teaching, improving the opportunities to learn for about 100,000 students during the grant period. (pg. 23)

Supporting and aligning these strengths, the applicant proposes the creation of Design Groups specifically for science and engineering disciplines to develop new resources for teachers including text-sets (graphs, models, maps, and diagrams) and inquiry teaching techniques. (pg. 29)

Another strength identified in this project is the support of teacher leader development (pg. 35) and the fidelity of the intervention throughout the project and across the multiple sites.

The project relies on a strong level of evidence. Kemple et al. (2008), a WWC-reviewed RCT study meeting standards without reservation, in which Kemple and associates conducted a multi-site RCT of Reading Apprenticeship and found positive impacts on science teachers' instructional practices. (pg. 27)

A strength of the project is the proposal to increase the number of highly effective middle and high school teachers serving high need students, defined as low academic literacy, ELL students, low SES, predominantly minority, and declining reading scores. (pgs. 38-40)

The final strength of this project is the projection to serve over 100,000 high needs students in schools and districts located in seven states (CA, GA, MI, NY, OK, TX, WA). It builds local capacity for sustained implementation after the grant

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period through partnerships with LEAs, SEAs, and service agencies, including: Atlanta Public Schools; Los Angeles Unified Regional STEAM Teams, the Oklahoma State Department of Education; Onondaga-Cortland-Madison BOCES, New York; IMPAQ Int., and The Texas Center for Educator Excellence. (pg. 26)

Weaknesses:

No weaknesses noted.

Reader's Score:

Selection Criteria - Significance

35

- 1. The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the following factors:
 - (1) The importance or magnitude of the results or outcomes likely to be attained by the proposed project, especially improvements in teaching and student achievement.
 - (2) The extent to which the costs are reasonable in relation to the number of persons to be served and to the anticipated results and benefits.
 - (3) The potential for the incorporation of project purposes, activities, or benefits into the ongoing program of the agency or organization at the end of Federal funding.
 - (4) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

Strengths:

This proposal has the following goals, which are clearly stated and identified as strengths to reach the target audience:

- 1) Increase the number of highly effective middle and high school teachers serving high needs students by engaging 1,500 teachers in Reading Apprenticeship professional learning and science/engineering Inquiry Design Groups,
- 2) Improve middle and high school students' reading comprehension and science achievement by increasing opportunities to collaborate and engage with more varied and challenging Science and Engineering tasks and texts, and
- 3) Build local capacity for sustained implementation and dissemination through teacher leader development, regional support and new tools. (pg. 28)

This proposal budget requests \$8,905,711 for the 1500 teachers and over 100,000 students reached by the intervention. The additional strengths of this proposal are products proposed and the collaborations built have great potential to be long lasting beyond the federal funding because of the extent of the intervention from a wide range of teachers, sites, and reaching the students who need the help the most.

WestEd has a strong track record of dissemination and proposes to continue this strength to distribute their findings through their website, in print, at numerous conferences, and through their own network of school district partners.

Weaknesses:

No weaknesses noted.

Reader's Score: 20

Selection Criteria - Quality of the Management Plan

The Secretary considers the quality of the management plan for the proposed project. In determining the quality
of the management plan for the proposed project, the Secretary considers the following factors:

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- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
- (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.
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

Strengths:

Table 4 on pages 47-48 outlines the goals, outcomes, and measures of the proposal. These are all reasonable for the project and can be accomplished by the leadership team.

The timeline on pages 51-54 clearly outlines the roles of the various teams and responsibilities for the leadership to achieve the project goals and objectives.

Through professional development end-of-day surveys, bi-annual teacher surveys measure teacher perceptions, teacher judgment about the fitness of RA to student needs, and other continuous feedback measures. (pgs. 58-59)

Weaknesses:

No weaknesses noted.

Reader's Score: 25

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 WWC standards with or without reservations as described in the WWC Handbook.
 - (2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.
 - (3) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible.
 - (4) The extent to which the methods of evaluation will provide valid and reliable performance data on Relevant Outcomes.

Note: Applicants may wish to review the following technical assistance resources on evaluation: (1) WWC Procedures and Standards Handbooks: https://ies.ed.gov/ncee/wwc/Handbooks (2) "Technical Assistance Materials for Conducting Rigorous Impact Evaluations": http://ies.ed.gov/ncee/projects/evaluationTA.asp; and (3) IES/NCEE Technical Methods papers: http://ies.ed.gov/ncee/tech_methods/. In addition, applicants may view two optional webinar recordings that were hosted by the Institute of Education Sciences. The first webinar discussed strategies for designing and executing well-designed Quasi-Experimental Design Studies and is available at: http://ies.ed.gov/ncee/wwc/Multimedia.aspx?sid=23. The second webinar focused on more rigorous evaluation designs, discussing strategies for designing and executing studies that meet WWC evidence standards without reservations. This webinar is available at: http://ies.ed.gov/ncee/wwc/Multimedia.aspx?sid=18.

Strengths:

The project's external partner, IMPAQ International, will conduct the evaluation and coordinate their work with Dr. Greenleaf. The project will support a Formative Research Team that includes SLI leadership, Dr. Cynthia Greenleaf and Dr. Mira Katz, and two highly regarded experts in literacy development, Dr. Kathleen Hinchman and Dr. Sheila Valencia.

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The strength of the evaluation is the intervention sample of 1,500 teachers will experience evidence based professional learning and integrate literacy practices into their content area instruction, increasing the learning opportunities of more than 100,000 students. Open source text-inquiries with teacher guides for middle and high school science and engineering teachers will be created and widely disseminated. 380 teacher leaders and regional partners will increase their knowledge of disciplinary literacy and deepen local capacity to sustain instructional improvement.

The strongest evaluation, a randomized controlled trial, will examine the impact of the professional learning on student learning and academic achievement in ELA and science/engineering.

Weaknesses:

No weaknesses noted.

Reader's Score: 20

Priority Questions

Competitive Preference Priority - Promoting STEM Education/Computer Science

1. Projects designed to improve student achievement or other educational outcomes in one or more of the following areas: Science, technology, engineering, math, or Computer Science. These projects must address the following priority area:

Increasing the number of educators adequately prepared to deliver rigorous instruction in STEM fields, including Computer Science, through recruitment, Evidence-Based Professional Development strategies for current STEM educators, or evidence-based retraining strategies for current educators seeking to transition from other subjects to STEM fields.

Strengths:

This project will provide the Reading Apprenticeship professional development intervention to 1,500 middle and high school teachers from schools in seven states, of which 500 will be science and engineering teachers.

The evaluation of the proposed project is a randomized controlled trial will examine the impact of the professional learning on student learning and academic achievement in ELA and science/engineering.

Weaknesses:

No weaknesses noted.

Reader's Score: 3

Status: Submitted

Last Updated: 06/29/2018 12:48 AM

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Status: Submitted

Last Updated: 06/29/2018 08:44 PM

Technical Review Coversheet

Applicant: WestEd (U423A180020)

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

		Points Possible	Points Scored
Questions			
Selection Criteria			
Quality of Project Design			
1. Project Design		35	35
Significance			
1. Significance		20	18
Quality of the Management Plan			
1. Management Plan		25	25
Quality of the Project Evaluation			
1. Project Evaluation		20	20
	Sub Total	100	98
Priority Questions			
Competitive Preference Priority			
Promoting STEM Education/Computer Science			
1. CPP1		3	3
	Sub Total	3	3
	Total	103	101

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Technical Review Form

Panel #5 - Supporting Effective Educator Development - 5: 84.423A

Reader #2: *******

Applicant: WestEd (U423A180020)

Questions

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:
 - (1) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.
 - (2) The extent to which the training or Professional Development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.
 - (3) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.
 - (4) The extent to which the services to be provided by the proposed project are focused on those with greatest needs.
 - (5) 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 represents an exceptional approach to the competition priority because it disseminates an evidence-based intervention, Reading Apprenticeship, which is proven to simultaneously improve student literacy and subject area learning across the academic curriculum and particularly in secondary science classrooms. A strength of the project is that it will increase the number of effective teachers at both the middle and high school levels in seven States (CA, GA, MI, NY, OK, TX, WA: 1,500 total teachers, 500 of whom will be science and engineering teachers). Multiple research studies with strong experimental designs have demonstrated the effectiveness of Reading Apprenticeship to improve teacher practice and student outcomes in literacy across the disciplines.

The Professional Development services to be provided by the project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients. The project design is strong as it is built on prior studies that show intensity and duration of Reading Apprenticeship Professional Development are sufficient to impact teacher practice and student outcomes. All participating teachers will engage in 50+ hours of Professional Development activities over the course of the year (Table I, pg. 7).

Studies have found benefits to both subject-specific and cross-disciplinary Professional Development for teacher learning and professional community at school sites; the project is strengthened by capitalizing on both strategies. The strong STEM focus of the project design includes teachers learning how to locate and curate a range of high quality, open source science and engineering texts from reliable university, museum, and government websites, and align text-sets to their curricular core ideas and practices. An additional strong element of the project design is Teacher Leaders at each school who will monthly convene their school Reading Apprenticeship teams to inquire into practice together.

The services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of the services. Ongoing exchanges among project staff, facilitators and school teams will guide the implementation work of the project. The project also capitalizes on relationships with regional partners and Reading Apprenticeship Consultants (Table 3, pg. 13) who host Professional Development institutes and provide support for program implementation. The services to be provided by the project are focused on those with greatest needs, and the design of the project is appropriate to the needs of the target population. This is evidenced by participating schools and

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districts: 1) serving concentrations of high needs students with low levels of literacy and science achievement, 2) having large populations of groups underrepresented in science and engineering fields, and 3) needing workforce development in science and engineering to support economic redevelopment.

Weaknesses:

No weaknesses found.

Reader's Score: 35

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:
 - (1) The importance or magnitude of the results or outcomes likely to be attained by the proposed project, especially improvements in teaching and student achievement.
 - (2) The extent to which the costs are reasonable in relation to the number of persons to be served and to the anticipated results and benefits.
 - (3) The potential for the incorporation of project purposes, activities, or benefits into the ongoing program of the agency or organization at the end of Federal funding.
 - (4) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

Strengths:

The outcomes likely to be attained by the proposed project will be important to improving teaching and student achievement as Reading Apprenticeship is one of the few professional development models that has a clear correlation between changes in teacher classroom practice and impacts on students' learning. Reading Apprenticeship also shows positive effects on students' literacy achievement, motivation, and engagement with English learners benefiting disproportionately from Reading Apprenticeship instruction. The project also has significance in its potential to build deeper understanding about varied formats of Professional Development delivery (blended) as well as the potential of teacher leadership and material support for increasing teacher effectiveness and sustainability.

A good qualitative case is presented that the project costs are reasonable in relation to the number of persons to be served and to the anticipated benefits. This is evidenced by a cited report comparing Reading Apprenticeship to other literacy programs for adolescents that concluded that the overall cost of Reading Apprenticeship is relatively modest because no additional personnel, materials, or facilities are needed. There is high potential for the incorporation of project activities and benefits into the ongoing program of the organization at the end of Federal funding. In a recent cited study, it was found that teachers continue to implement Reading Apprenticeship years after they first experience the Professional Development. Because Reading Apprenticeship is not dependent on textbook or scripted curriculum adoption, it often serves as the vehicle for district coherence around instructional change.

The results of the project will be disseminated in ways that will enable others to use the information and strategies. As an organization that develops networks among practitioners, researchers, and policy makers, WestEd has stable outreach structures that ensure new knowledge and resources reach many stakeholders, included are an award-winning website, Comprehensive Centers that serve large numbers of teachers and districts, a strong social media presence, and print products that disseminate information about its projects to a broad range of audiences, including email lists of 80,000 contacts. Additionally, the project will make the topic-linked text inquiries available on the readingapprenticeship.org website, on the websites of participating schools and districts, and through partnering agencies that provide technical assistance to schools.

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Weaknesses:

A strong quantitative argument for costs being reasonable in relation to the number of persons to be served and to the anticipated benefits is not made. The proposal would be strengthened by providing quantitative cost information such as the cost per teacher and per student impacted.

Reader's Score: 18

Selection Criteria - Quality of the Management Plan

- 1. The Secretary considers the quality of the management plan for the proposed project. In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:
 - (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
 - (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.
 - (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

Strengths:

The goals, objectives, outcomes, and measures for the proposed project are clearly specified and measurable in Table 4 (pg. 22). The management plan is adequate to achieve the objectives of the project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks detailed in Table 5 (pg. 26). The project operations staff are experienced in regularly supporting high quality delivery of services to thousands of teachers per year including using project management tools to track recruitment, participation, and logistics for event planning. This experience contributes to a high likelihood of success for the project. Table 6 (pg. 30) does a great job of clearly presenting the roles and responsibilities of key personnel along with the experience they have that will contribute to project success. For example, the Project Director, Dr. Cynthia Greenleaf has broadly published and presented research on the Reading Apprenticeship model as well as serving as PI and Co-PI on federally funded research studies and three current Office of Innovation grants.

The procedures for ensuring feedback and continuous improvement in the operation of the project are adequate. The proposed project plan has many forms of information and data that will be fed back into the refinement of materials from one institute to the other and from one year of the program to the next. Formative assessment tools and approaches are built into the professional development sequences and supported with assessment resources such as classroom practice rubrics and student learning goals.

Weaknesses:

No weaknesses found.

Reader's Score: 25

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 WWC standards with or without reservations as described in the WWC Handbook.
 - (2) The extent to which the methods of evaluation will provide performance feedback and permit periodic

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assessment of progress toward achieving intended outcomes.

- (3) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible.
- (4) The extent to which the methods of evaluation will provide valid and reliable performance data on Relevant Outcomes.

Note: Applicants may wish to review the following technical assistance resources on evaluation: (1) WWC Procedures and Standards Handbooks: https://ies.ed.gov/ncee/wwc/Handbooks (2) "Technical Assistance Materials for Conducting Rigorous Impact Evaluations": http://ies.ed.gov/ncee/projects/evaluationTA.asp; and (3) IES/NCEE Technical Methods papers: http://ies.ed.gov/ncee/tech_methods/. In addition, applicants may view two optional webinar recordings that were hosted by the Institute of Education Sciences. The first webinar discussed strategies for designing and executing well-designed Quasi-Experimental Design Studies and is available at: http://ies.ed.gov/ncee/wwc/Multimedia.aspx?sid=23. The second webinar focused on more rigorous evaluation designs, discussing strategies for designing and executing studies that meet WWC evidence standards without reservations. This webinar is available at: http://ies.ed.gov/ncee/wwc/Multimedia.aspx?sid=18.

Strengths:

The Project evaluation will address the following important research questions: (1) What is the impact of the project on students' science literacy among middle and high school students? (2) What is the impact of the project on students' ELA achievement among middle and high school students? (3) What is the impact of the project on students' science achievement among middle and high school students? The impact evaluation will employ a school-level randomized controlled trial to identify the effects of the project on teacher effectiveness in improving student outcomes. The impact evaluation is designed to meet WWC standards without reservations with procedures in place to minimize attrition, ensure baseline equivalence, and use reliable and valid outcome measures that are not over-aligned with the intervention and are collected in the same manner for both intervention and comparison groups. The project has a strong plan for reducing attrition that includes participating teachers being offered incentives for participating in the Professional Development and data collection. In addition, the evaluation team will mitigate attrition and improve engagement in the study through regular communication with schools and participants and by providing support and assistance with data collection efforts as needed.

The methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes. These methods will address both formative and summative goals and will provide rigorous evidence regarding both the implementation of project and its impacts on teacher effectiveness. The methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data. The methods of evaluation will provide valid and reliable performance data on Relevant Outcomes, e.g. instructional practices will be measured via online surveys administered to teachers four times. The surveys will measure fidelity of program implementation and assess differences between the practices of treatment and control teachers.

Weaknesses:

No weaknesses found.

Reader's Score: 20

Priority Questions

Competitive Preference Priority - Promoting STEM Education/Computer Science

 Projects designed to improve student achievement or other educational outcomes in one or more of the following areas: Science, technology, engineering, math, or Computer Science. These projects must address the following priority area:

Increasing the number of educators adequately prepared to deliver rigorous instruction in STEM fields, including Computer Science, through recruitment, Evidence-Based Professional Development strategies for current STEM educators, or evidence-based retraining strategies for current educators seeking to transition from other

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subjects to STEM fields.

Strengths:

The proposed project is designed to improve student achievement in STEM as the project will provide approximately 500 middle and high school science and engineering teachers with evidence-based Professional Development. Reading Apprenticeship Professional Development has been shown by several studies funded by NSF and IES and conducted by external evaluation teams to have a positive impact on science teachers' literacy instruction, students' opportunities to learn, and students' achievement of academic literacy in science classrooms. A strength of the project approach is that teachers will learn to analyze texts with an eye to the learning opportunities and challenges they present for students, to represent a range of text types characteristic of communication in science and engineering, and to sequence texts to build students' knowledge and literacy skills through investigation and engineering tasks.

Weaknesses:

No weaknesses found.

Reader's Score: 3

Status: Submitted

Last Updated: 06/29/2018 08:44 PM

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Status: Submitted

Last Updated: 06/28/2018 09:15 PM

Technical Review Coversheet

Applicant: WestEd (U423A180020)

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

		Points Possible	Points Scored
Questions Selection Criteria Quality of Project Design			
1. Project Design		35	35
Significance 1. Significance		20	20
Quality of the Management Plan 1. Management Plan		25	25
Quality of the Project Evaluation1. Project Evaluation		20	20
	Sub Total	100	100
Priority Questions Competitive Preference Priority Promoting STEM Education/Computer Science			
1. CPP1		3	3
	Sub Total	3	3
	Total	103	103

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Technical Review Form

Panel #5 - Supporting Effective Educator Development - 5: 84.423A

Reader #3: *******

Applicant: WestEd (U423A180020)

Questions

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:
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 - (2) The extent to which the training or Professional Development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.
 - (3) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.
 - (4) The extent to which the services to be provided by the proposed project are focused on those with greatest needs.
 - (5) 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:

Multiple aspects of the proposed project demonstrate exceptional approaches to the Absolute Priority established for this competition. The proposed project meets the WWC definitions for effectiveness and the strong evidence base required for absolute priority 1 (p. 1).

The project builds on the 20+ year evidence-based Reading Apprenticeship program using the effective professional development of this project and expanding the emphasis on disciplinary inquiry (p. 1). One example of expansion of this work is the identification of a subset of the science/engineering teachers to develop new resources for the field that will provide authentic forms of text that will support the development of discipline specific reading practices for students (p. 2 and 10).

The applicant has identified seven states with large populations of underrepresented students with low levels of achievement in science and literacy, are underrepresented in these career fields, and there is an identified need for workers to support economic development in these communities (pp. 13-15). The project will provide training for 1500 teachers with 500 teachers selected from the fields of science and engineering. Collectively these teachers will impact over 100,000 secondary students (p.1). Studies indicate that the intensity and duration of the Reading Apprenticeship professional development approach is effective and the process replicated as outlined in Table 1 on pp. 7-8.

Weaknesses:

There are no weaknesses noted.

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Reader's Score: 35

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:
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 - (2) The extent to which the costs are reasonable in relation to the number of persons to be served and to the anticipated results and benefits.
 - (3) The potential for the incorporation of project purposes, activities, or benefits into the ongoing program of the agency or organization at the end of Federal funding.
 - (4) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

Strengths:

The applicant cites multiple studies of the RA professional development model demonstrated a clear correlation between changes in teacher classroom practice and positive impact on student achievement indicating that the outcomes of this project are likely to be attained (pp. 15-16). The current study will expand the RA work to determine the impact on student achievement when teachers integrate literacy practices into science and English instruction (p. 17) affecting over 1500 teachers and 1000 students.

To some extent the costs are reasonable in relation to the number of teachers and students served and to the anticipated benefits. Partner support is strong in all aspects of the grant design and there is shared responsibility for matching funds (pp. e278-e280). The focus of the study on the effectiveness of blended PD as compared to face-to-face will provide evidence for more cost-effective options to deliver PD increasing sustainability (p. 18). There will also be on-going value in the proposed Design Group resources and improve efficiency for instructional planning by reducing the need to locate materials that are aligned to the curriculum and the newly learned instructional strategies (p. 17).

The applicant has describes strong collaborative partnerships with school staff committed to building strong literacy support across their schools when the grant funding is complete. Evidence provided through the training plan for site leaders and teachers as well as completed studies that indicate teachers continue to implement the RA after they first experience it (p. 18). Teacher leaders receive on-going support with RA trainers and in turn, the Teacher Leaders meet monthly with their school team to provide on-going support. There is no reason that this proven professional learning methodology won't continue to be implemented following the project.

WestED, the project applicant, has established structures to disseminate new knowledge and resources on a monthly basis. Currently lessons learned and resources that support RA are readily available for download at readingappreniceship.org (p. 20). Annually WestED works with about 2000 educators and the lessons learned from this project impact the training design for future participants in projects such as SETDI (p. 21).

Weaknesses:

There are no weaknesses noted.

Reader's Score: 20

Selection Criteria - Quality of the Management Plan

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- 1. The Secretary considers the quality of the management plan for the proposed project. In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:
 - (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
 - (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.
 - (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

Strengths:

The applicant provides measurable goals and objectives in support of absolute priority 1 and the competitive preference 1 (pp. 22-23).

The applicant provides descriptive and comprehensive information demonstrating that the management plan design will achieve the objectives on time and within budget. Timelines provided include milestones and roles of each stakeholder in completing tasks (pp. 26-28). WestEd is well-known and proven leader in education research and offices with highly experienced staff located across the country to support project partners. WestEd has successfully achieved the goal of this project; that is, putting research into practice. Qualifications of key personnel are included (pp. 31-33) and resumes are located in Appendix A.

Formative assessment tools built into the project design provide qualitative feedback and continuous improvement in the operation of the proposed project. Examples include surveys at the conclusion of PD days, biannual teacher leader surveys and quarterly partner surveys.

Weaknesses:

There are no weaknesses noted.

Reader's Score: 25

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:
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 - (2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.
 - (3) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible.
 - (4) The extent to which the methods of evaluation will provide valid and reliable performance data on Relevant Outcomes.

Note: Applicants may wish to review the following technical assistance resources on evaluation: (1) WWC Procedures and Standards Handbooks: https://ies.ed.gov/ncee/wwc/Handbooks (2) "Technical Assistance Materials for Conducting Rigorous Impact Evaluations": http://ies.ed.gov/ncee/projects/evaluationTA.asp; and (3) IES/NCEE Technical Methods papers: http://ies.ed.gov/ncee/tech_methods/. In addition, applicants may view two optional webinar recordings that were hosted by the Institute of Education Sciences. The first webinar discussed strategies for designing and executing well-designed Quasi-Experimental Design Studies and is available at: http://ies.ed.gov/ncee/wwc/Multimedia.aspx?sid=23. The second webinar focused on more rigorous evaluation

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designs, discussing strategies for designing and executing studies that meet WWC evidence standards without reservations. This webinar is available at: http://ies.ed.gov/ncee/wwc/Multimedia.aspx?sid=18.

Strengths:

The applicant states IMPAQ International will be the independent research firm. IMPAQ will support the project from implementation through the analysis of outcomes. In addition, SLI will conduct an internal formative evaluation to inform the project design and on-going improvement, with support from IMPAQ (p. 34). A detailed logic model (p. 35) of the project design captures the input of professional development in RA and the ability of science and engineering teachers to integrate academic literacy instruction into their teaching thereby increasing achievement and engagement. The research question design will result in both formative and impact evaluation data (p.36) that includes surveys and observations of students and teachers on a periodic basis. This on-going collection of data will inform on-going improvement of the project design.

Weaknesses:

There are no weaknesses noted.

Reader's Score: 20

Priority Questions

Competitive Preference Priority - Promoting STEM Education/Computer Science

1. Projects designed to improve student achievement or other educational outcomes in one or more of the following areas: Science, technology, engineering, math, or Computer Science. These projects must address the following priority area:

Increasing the number of educators adequately prepared to deliver rigorous instruction in STEM fields, including Computer Science, through recruitment, Evidence-Based Professional Development strategies for current STEM educators, or evidence-based retraining strategies for current educators seeking to transition from other subjects to STEM fields.

Strengths:

Five hundred of the 1500 teachers will be science and engineering teachers (p. e23). Given that WestEd has demonstrated success through the RA project denoting changes in literacy and social studies instructional practices it is anticipated similar results will occur with science and engineering teachers. By increasing the ability of these teachers to positively affect students interactions with this type of literature, student engagement is anticipated to increase and have a positive impact on developing interest in career pathways related to science and engineering.

Weaknesses:

There are no weaknesses noted.

Reader's Score: 3

Status: Submitted

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