

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

Status: Submitted

Last Updated: 08/11/2014 05:35 PM

Technical Review Coversheet

Applicant: Temple University - Of The Commonwealth System of (U336S140039)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	8
Quality of Project Design		
1. Project Design	45	39
Quality of the Management Plan		
1. Management Plan	20	20
Quality of the Project Evaluation		
1. Project Evaluation	20	18
Priority Questions		
Competitive Preference Priority 1		
Promoting STEM Education		
1. CPP 1	5	5
Competitive Preference Priority 2		
Implementing Academic Standards		
1. CPP 2	2	1
Total	107	91

Technical Review Form

Panel #12 - 2014 TQP Grant Review- 12: 84.336S

Reader #1: *****

Applicant: Temple University - Of The Commonwealth System of (U336S140039)

Questions

Selection Criteria - Significance

1. 1) The Secretary considers the significance of the proposed project.
 - 2) In determining the significance of the proposed project, the Secretary considers the following factors:
 - i) The extent to which the proposed project is likely to build local capacity to provide, improve, or expand services that address the needs of the target population.
 - ii) The likelihood that the proposed project will result in system change or improvement.
 - iii) The extent to which the proposed project will prepare personnel for fields in which shortages have been demonstrated.

Strengths:

- Statistics highlighting the high teacher turnover in STEM subjects and the great need for highly-qualified STEM subject area teachers in the local area are provided (pgs. 1-2).
- Statistics concerning the low local student achievement in STEM subject areas are presented (p. 6).
- A partnership with local school districts is evident (pgs. 7-8) and letters of support are provided.
- The need for a focus on training middle-grades STEM subject area teachers is highlighted (pgs. 9-10).
- A plan for prompting systematic change, through the suggested goals and objectives, is clear and feasible.

Weaknesses:

- Although some partnerships are evidenced as effective, the actual plan for creating more and stronger partnerships is not provided (p.8). This process needs to be explained in more detail.
- “Intentional strategies” to better train teachers for teaching in STEM areas are mentioned (p.10), but details about how what those strategies are and the plan for communicating them is not fully described.

Reader's Score: 8

Selection Criteria - Quality of Project Design

- 1) The Secretary considers the quality of the design of the proposed project.
 - 2) In determining the quality of the design of the proposed project, the Secretary considers the extent to which the proposed project consists of a comprehensive plan that includes a description of:
 - i) The extent to which the proposed project is supported by strong theory (as defined in this notice).
 - ii) 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.

iii) The extent to which the proposed activities constitute a coherent, sustained program of training in the field.

iv) 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.

v) The extent to which the applicant demonstrates that it has the resources to operate the project beyond the length of the grant, including a multi-year financial and operating model and accompanying plan; the demonstrated commitment of any partners; evidence of broad support from stakeholders (e.g., State educational agencies, teachers unions) critical to the project's long-term success; or more than one of these types of evidence.

Note: In order to address this criterion, applicants are encouraged to develop logic models to demonstrate their project's theory of action. Applicants should connect available evidence of past history of successful outcomes to their logic models. Applicants may use resources such as the Pacific Education Laboratory's Education Logic Model Application (www.relpacific.mcrel.org/PERR.html) or the Northeast and Islands REL Skill Builder Workshops (www.relnei.org/events/skill-builder-archive.html) to help design their logic models. In addressing this criterion, applicants are also encouraged to connect the project design to the intended impact of the project, including an explanation of how the project will affect the preparation, placement, retention, induction, and professional development of teachers, and ultimately student achievement. Finally, applicants are encouraged to discuss the role and commitment of each partner and how the IHE and LEA(s) plan to sustain their partnership beyond the life of the grant.

Strengths:

- The need for a more diverse representation of the population, which creates a stronger relationship with the students and increased student involvement, is described (p.12).
- Intensive collaboration between residents and mentor teachers will allow for both the growth of the resident in learning how to effectively teach STEM and the mentor teachers in the effective teaching of STEM subjects, and it is hoped that, that exchange of learning will create positive change in the overall teaching/learning culture (p. 14).
- The logic plan clearly identifies resources, activities, outputs, short-term outcomes, midterm outcomes, and long-term outcomes (p.14), which all align with the objective of better preparing teachers to produce students with high achievement in STEM subject areas.
- The curricular goals which ensure appropriate foundations in STEM content areas is outlined in appendix H.
- The shadowing of a middle-grades student will enable the resident to gain a deeper understanding of what it really means to effectively teach a STEM subject area to a middle grades student (p.18).
- The co-teaching experience is detailed and allows for a gradual release of teaching responsibilities to be given to the resident (p.18).
- The option for receiving a Special Education certification during the post-residency summer is available to residents (p. 20).
- Mentors go through a specific selection process (p. 22) and are then trained to be consistent and rigorous in their mentoring of residents (p.23).
- A detailed plan of residency admittance and residency obligations is included (pgs. 28-31).
- Support will continue beyond the residency (p.32) and proper interventions and/or supplementations will be provided as necessary to increase the effectiveness of graduates (p. 33).
- A proposed budget that increases the likelihood of financial sustainability beyond the funding of the grant is provided (p. 34).

Weaknesses:

- The necessity of better training teachers to teach STEM subjects (p.12) through differentiation (p.16) in middle schools is highlighted, and it is stated that rigorous training in these areas will be included in the residency; however, the details of how this training will take place is unclear.
- Although the need for a more diverse population of STEM teachers is mentioned (p. 13), the detailed and research-based plan for accomplishing that goal, beyond continuing current recruitment efforts, is not evident.
- A brief glance at how certification for grades 4-5, in compliance with state guidelines, is briefly mentioned but not detailed

enough to fully understand (p.19).

-It is stated that the current feedback structure will be utilized as it has resulted in “graduates who were better prepared teachers”, but the research to support this is not provided (p.19).

Reader's Score: 39

Selection Criteria - Quality of the Management Plan

1. 1) The Secretary considers the quality of the management plan for the proposed project.

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

i) 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.

ii) The qualifications, including relevant training and experience, of key project personnel.

iii) The extent to which performance feedback and continuous improvement are integral to the design of the proposed project.

Note: In order to address this criterion, applicants are encouraged to include in the application narrative a clear, well thought-out implementation plan that includes annual timelines, key project milestones, and a schedule of activities with sufficient time for developing an adequate implementation plan, as well as a description and qualifications of the personnel who would be responsible for each activity and the level of effort each activity entails. Applicants may also describe how the partnering organizations will communicate and coordinate in order to achieve project goals.

Strengths:

-Strong collaborations with local school districts and IHEs are evidenced (p.34) and letters of support are included.

-Key personnel and their qualifications are included (pgs. 36-38) and their resumes are included.

-Urban Teacher Residency United (UTRU) will serve as a partner during the year of planning to ensure best practices throughout the process (p.38).

-A plan for progress monitoring and evaluation to ensure a positive impact will be utilized (p.41).

-A breakdown of communication and feedback among key members and partnerships clearly details progress monitoring and evaluation throughout the program (p.41).

Weaknesses:

NA

Reader's Score: 20

Selection Criteria - Quality of the Project Evaluation

1. 1) The Secretary considers the quality of the evaluation to be conducted of the proposed project.

2) In determining the quality of the evaluation, the Secretary considers:

i) The extent to which the methods of evaluation provide valid and reliable performance data on relevant outcomes.

Note: In response to this selection factor, applicants are encouraged to include data on student learning.

ii) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

iii) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

Note: In addressing this criterion, applicants are encouraged to include a plan for how the project's evaluation will address the TQP Grant Program performance measures established by the Department under the Government Performance and Results Act of 1993 (GPRA), as well as the measures established in section 204(a) of the HEA. (The specific performance measures established for the overall TQP Grant Program are discussed under Performance Measures in section VI of this notice.) Further, applicants are encouraged to describe how the applicant's evaluation plan will be designed to collect both output data and outcome data, including benchmarks, to monitor progress. Finally, each applicant is encouraged to select an independent, objective evaluator who has experience in evaluating educational programs and who will play an active role in the design and implementation of the project's evaluation.

Strengths:

-A mixed methods design utilizing formative and summative evaluations is detailed (p. 41).

--Outcome evaluation questions aligned with the objectives proposed in the logic model are included (pgs. 42-43).

-An external evaluator will be utilized to ensure a rigorous evaluation process (p. 45).

-An evaluation plan that progresses through the five years is detailed (pgs. 46-50).

Weaknesses:

-A plan for formative evaluation is not evident in the evaluation plan.

Reader's Score: 18

Priority Questions

Competitive Preference Priority 1 - Promoting STEM Education

1. Projects that are designed to address one or both of the following priority areas:

a) Increasing the opportunities for high-quality preparation of, or professional development for, teachers or other educators of STEM subjects.

b) Increasing the number of individuals from groups traditionally underrepresented in STEM, including minorities, individuals with disabilities, and women, who are teachers or educators of STEM subjects and have increased opportunities for high-quality preparation or professional development.

Note: Applicants that respond to Competitive Preference Priority 1 and Absolute Priority 1 are still required to implement the required reforms within the whole teacher preparation program, as reflected in sections (a) and (b) of Absolute Priority 1.

In responding to this competitive preference priority, applicants are encouraged to include the following elements in their proposed projects:

1) Institutional collaboration to ensure that students in a college of education who intend to teach STEM courses have access to courses that build appropriate content knowledge. Such students should have access to course sequencing that is equal to the course sequencing for other STEM majors outside the college of education.

2) Emphasis on hands-on and inquiry-based STEM experiences for prospective teachers, including dedicated research or laboratory experiences, STEM discipline-specific pedagogical instruction, and

explicit instruction in the interdisciplinary connections between learning sciences and STEM instruction; and

3) Early and multiple field-based instructional experiences for prospective teachers that are structured to provide exposure to a variety of teaching and learning environments, and that are coordinated and aligned with the teacher preparation curriculum.

Strengths:

- Only students with bachelor's degrees in STEM related subjects will be eligible to ensure a strong foundation of STEM content knowledge (p.2).
- Specific STEM based strategies and content are detailed, assuring that the emphasis of training is focused on inquiry-based practices and rooted in STEM content (p. 2).
- Training and hands-on experiences post-induction will be established to ensure teacher effectiveness beyond the residency (p. 3).
- A recruitment effort tailored to reach underrepresented minorities, which has statistically proven effective in the past (pgs. 3-4), will be utilized to reach a more diverse population.

Weaknesses:

NA

Reader's Score: 5

Competitive Preference Priority 2 - Implementing Academic Standards

1. Projects that are designed to support the implementation of internationally benchmarked, college- and career-ready academic standards held in common by multiple States and to improve instruction and learning, including projects in the following priority areas:

- a) The development or implementation of professional development or preparation programs aligned with those standards.**
- b) Strategies that translate the standards into classroom practice.**

Strengths:

- The proposed plan provides experiences for residents to utilize standards-based assessments to drive instructional decisions (p. 4).
- PA Common Core Standards are already being utilized and will continue to be used as the criteria for tracking achievement (p. 4).
- A year-long training and mentorship geared towards effectively reaching the PA Core Standards will be provided (p. 4).

Weaknesses:

-Additional information to evidence strategies that translate the standards into classroom practice is needed. Additionally, details around implementation of the standards are needed.

Reader's Score: 1

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Technical Review Coversheet

Applicant: Temple University - Of The Commonwealth System of (U336S140039)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	15
Quality of Project Design		
1. Project Design	45	42
Quality of the Management Plan		
1. Management Plan	20	20
Quality of the Project Evaluation		
1. Project Evaluation	20	18
Priority Questions		
Competitive Preference Priority 1		
Promoting STEM Education		
1. CPP 1	5	5
Competitive Preference Priority 2		
Implementing Academic Standards		
1. CPP 2	2	1
Total	107	101

Technical Review Form

Panel #12 - 2014 TQP Grant Review- 12: 84.336S

Reader #2: *****

Applicant: Temple University - Of The Commonwealth System of (U336S140039)

Questions

Selection Criteria - Significance

1. 1) The Secretary considers the significance of the proposed project.
- 2) In determining the significance of the proposed project, the Secretary considers the following factors:
 - i) The extent to which the proposed project is likely to build local capacity to provide, improve, or expand services that address the needs of the target population.
 - ii) The likelihood that the proposed project will result in system change or improvement.
 - iii) The extent to which the proposed project will prepare personnel for fields in which shortages have been demonstrated.

Strengths:

(i) The proposal through regional statistics has established the significance of the project with the key statement that the project outcomes will not only target the specific needs of well qualified and trained STEM teachers, but also a broadly impactful strategy to spread across the entire academic ecosystem. The project seeks to build capacity by training and inducting 53 new middle-grade STEM teachers and support an equal number of veteran teachers/mentors.

(ii) The main systemic change that the project seeks to implement the idea of the "Great Schools Compact" a joint agreement between the educational leaders and school providers to provide quality education. The trained teachers in this program will be experienced through a wide range of experiences and thereby impact the wider educational system including the university.

(iii) The project has provided data that has supported the critical need for trained teachers in the STEM area at the middle school levels. The lack of content expertise among those teachers will be one of the main weakness addressed by the project. The proposal seeks to create and implement a teacher preparation program that addresses the 21st century classroom needs.

Weaknesses:

No weaknesses.

Reader's Score: 15

Selection Criteria - Quality of Project Design

- 1) The Secretary considers the quality of the design of the proposed project.
- 2) In determining the quality of the design of the proposed project, the Secretary considers the extent to which the proposed project consists of a comprehensive plan that includes a description of:
 - i) The extent to which the proposed project is supported by strong theory (as defined in this notice).

ii) 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.

iii) The extent to which the proposed activities constitute a coherent, sustained program of training in the field.

iv) 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.

v) The extent to which the applicant demonstrates that it has the resources to operate the project beyond the length of the grant, including a multi-year financial and operating model and accompanying plan; the demonstrated commitment of any partners; evidence of broad support from stakeholders (e.g., State educational agencies, teachers unions) critical to the project's long-term success; or more than one of these types of evidence.

Note: In order to address this criterion, applicants are encouraged to develop logic models to demonstrate their project's theory of action. Applicants should connect available evidence of past history of successful outcomes to their logic models. Applicants may use resources such as the Pacific Education Laboratory's Education Logic Model Application (www.relpacific.mcrel.org/PERR.html) or the Northeast and Islands REL Skill Builder Workshops (www.relnei.org/events/skill-builder-archive.html) to help design their logic models. In addressing this criterion, applicants are also encouraged to connect the project design to the intended impact of the project, including an explanation of how the project will affect the preparation, placement, retention, induction, and professional development of teachers, and ultimately student achievement. Finally, applicants are encouraged to discuss the role and commitment of each partner and how the IHE and LEA(s) plan to sustain their partnership beyond the life of the grant.

Strengths:

(i) The proposal has provided a justification of the project in the theoretical model as presented in the logic model. The main theoretical support for the project comes from contemporary principles of cognitive science and expertise development, and the National Research Council Reports that determines that skills mastery by teachers is precursor to student development and the skills have to be provided in a scaffolded diverse setting. The residency component is well defined and justified.

(ii) The project has provided details about the project model and design. The design seeks rigorous academic activities that understand the developmental and cognitive levels of their students, master subject content and its adjoining pedagogy, and appreciate and teach the diversity of their learning community. The proposal has provided extraordinary understanding of the project design prior, during and after residency and through induction that will enable quality training.

(iii) The project has a good structure in its recruitment/selection strategies, residential experiences, induction support and professional development, and handling of attrition. By creating a model of converting expenses to dropouts into school loans, the project uniquely keeps the motivation high while reducing the risk factor for participants. The design comes across as clear, coherent and all components working towards the project goals.

(iv) The project has a strong support from all collaborative partners. The project partners' roles are described and established through the letters of support. The existing administrative structures in the host institutions will be augmented for the project.

(v) The project design is strong and the top leadership of all partnering organizations have supported the project. The project anticipates that by involving the partnering LEA's the program will grow in scale, and create a stable, high-quality network which will sustain the novice-teachers beyond the funding years.

Weaknesses:

The project has used some areas such as differentiation curriculum, and how they will address State standards, but detailed implementation of these ideas is not explored.

Reader's Score: 42

Selection Criteria - Quality of the Management Plan

1. 1) The Secretary considers the quality of the management plan for the proposed project.

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

i) 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.

ii) The qualifications, including relevant training and experience, of key project personnel.

iii) The extent to which performance feedback and continuous improvement are integral to the design of the proposed project.

Note: In order to address this criterion, applicants are encouraged to include in the application narrative a clear, well thought-out implementation plan that includes annual timelines, key project milestones, and a schedule of activities with sufficient time for developing an adequate implementation plan, as well as a description and qualifications of the personnel who would be responsible for each activity and the level of effort each activity entails. Applicants may also describe how the partnering organizations will communicate and coordinate in order to achieve project goals.

Strengths:

(i) The project has a strong management plan with a complete list of project key staff and activities. A comprehensive time-line with specific milestones during the planning, initiation and maintenance of the program is provided. The management plan provides for strategies to transition the program through the different years.

(ii) The project will be implemented by a group of qualified personnel. The profiles of the PI, program manager, senior advisers, district representatives, technology support and strategic partners are discussed. The staff is qualified, and their roles in the project are described.

(iii) The project has provided for monitoring and feedback mechanism. The proposal has developed feedback mechanisms for all levels including feedback from the faculty, residents, principals, and novice-teachers. The feedback system will be electronic through the WestEd (page 41).

Weaknesses:

No weaknesses.

Reader's Score: 20

Selection Criteria - Quality of the Project Evaluation

1. 1) The Secretary considers the quality of the evaluation to be conducted of the proposed project.

2) In determining the quality of the evaluation, the Secretary considers:

i) The extent to which the methods of evaluation provide valid and reliable performance data on relevant outcomes.

Note: In response to this selection factor, applicants are encouraged to include data on student learning.

ii) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

iii) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

Note: In addressing this criterion, applicants are encouraged to include a plan for how the project's evaluation will address the TQP Grant Program performance measures established by the Department under the Government Performance and Results Act of 1993 (GPRA), as well as the measures established in section 204(a) of the HEA. (The specific performance measures established for the overall TQP Grant Program are discussed under Performance Measures in section VI of this notice.) Further, applicants are encouraged to describe how the applicant's evaluation plan will be designed to collect both output data and outcome data, including benchmarks, to monitor progress. Finally, each applicant is encouraged to select an independent, objective evaluator who has experience in evaluating educational programs and who will play an active role in the design and implementation of the project's evaluation.

Strengths:

(i) The project has a strong evaluation plan. The evaluation is planned as a mixed-methods study through both internal and external evaluation systems that will complement each other. The evaluation is simplified with a set of performance questions. Internal evaluations will consist of participant assessments. External evaluations will include a WestEd system that will coordinate strategies to assess the annual and comprehensive outcomes of the project.

(ii) The project evaluation plan is detailed and provides details of data mechanisms, data collection and sources, and how the evaluation data will be shared. By using both internal and external evaluation, the project will have a rich understanding of the program. The mixed-methods will help in gaining insights into the project operations.

(iii) The project evaluation plan has indicated a formative feedback mechanism through the WestEd method that provides and shares feedback at various levels.

Weaknesses:

It is unclear who and how the project will use the formative evaluations for project changes. The formative evaluation of this project comes across as theory rather than practice.

Reader's Score: 18

Priority Questions

Competitive Preference Priority 1 - Promoting STEM Education

1. Projects that are designed to address one or both of the following priority areas:

a) Increasing the opportunities for high-quality preparation of, or professional development for, teachers or other educators of STEM subjects.

b) Increasing the number of individuals from groups traditionally underrepresented in STEM, including minorities, individuals with disabilities, and women, who are teachers or educators of STEM subjects and have increased opportunities for high-quality preparation or professional development.

Note: Applicants that respond to Competitive Preference Priority 1 and Absolute Priority 1 are still required to implement the required reforms within the whole teacher preparation program, as reflected in sections (a) and (b) of Absolute Priority 1.

In responding to this competitive preference priority, applicants are encouraged to include the following elements in their proposed projects:

1) Institutional collaboration to ensure that students in a college of education who intend to teach STEM courses have access to courses that build appropriate content knowledge. Such students should have access to course sequencing that is equal to the course sequencing for other STEM majors outside the college of education.

2) Emphasis on hands-on and inquiry-based STEM experiences for prospective teachers, including dedicated research or laboratory experiences, STEM discipline-specific pedagogical instruction, and explicit instruction in the interdisciplinary connections between learning sciences and STEM instruction; and

3) Early and multiple field-based instructional experiences for prospective teachers that are structured to provide exposure to a variety of teaching and learning environments, and that are coordinated and aligned with the teacher preparation curriculum.

Strengths:

The proposal has provided a sound discussion on how it will address competitive priority questions. The proposal has presented a multi-faceted approach that supports STEM education across the diverse educational eco-system. The project will involve training STEM field teachers only and use highly-targeted discipline-specific curriculum and training approach. The curriculum will emphasize hands-on experiential learning, and make concerted efforts to recruit and train underrepresented populations.

Weaknesses:

No weaknesses.

Reader's Score: 5

Competitive Preference Priority 2 - Implementing Academic Standards

1. Projects that are designed to support the implementation of internationally benchmarked, college- and career-ready academic standards held in common by multiple States and to improve instruction and learning, including projects in the following priority areas:

a) The development or implementation of professional development or preparation programs aligned with those standards.

b) Strategies that translate the standards into classroom practice.

Strengths:

The project will use the PA Common Core Standards, for the curriculum. The curriculum includes the full-year clinical-experience and will evolve a new strand of an existing accelerated teacher preparation program.

Weaknesses:

The proposal has not provided a justification for choosing the PA Common Core Standards and how these standards will be implemented into classroom activities.

Reader's Score: 1

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Status: Submitted

Last Updated: 08/09/2014 03:30 PM

Technical Review Coversheet

Applicant: Temple University - Of The Commonwealth System of (U336S140039)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	15
Quality of Project Design		
1. Project Design	45	41
Quality of the Management Plan		
1. Management Plan	20	20
Quality of the Project Evaluation		
1. Project Evaluation	20	18
Priority Questions		
Competitive Preference Priority 1		
Promoting STEM Education		
1. CPP 1	5	5
Competitive Preference Priority 2		
Implementing Academic Standards		
1. CPP 2	2	1
Total	107	100

Technical Review Form

Panel #12 - 2014 TQP Grant Review- 12: 84.336S

Reader #3: *****

Applicant: Temple University - Of The Commonwealth System of (U336S140039)

Questions

Selection Criteria - Significance

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 - 2) In determining the significance of the proposed project, the Secretary considers the following factors:
 - i) The extent to which the proposed project is likely to build local capacity to provide, improve, or expand services that address the needs of the target population.
 - ii) The likelihood that the proposed project will result in system change or improvement.
 - iii) The extent to which the proposed project will prepare personnel for fields in which shortages have been demonstrated.

Strengths:

The project recognizes the importance of STEM teachers at the middle level. SDP has expressed a need for high quality middle level STEM instructors. Currently, teacher shortages in this area has affected the SDP. The PSSA test shows that math scores drop off dramatically between 8th and 11th grade. Science scores are also lower than the national average. Page 6. The narrative states that this is because students are inadequately prepared for the rigors of secondary education. By the time students reach this level, it is difficult to catch up and learn the analytical tools and skills needed in high-school, college and careers in the STEM area. Page 1. The project states that middle grades STEM education is more important than ever. This initiative is important because math and science courses in middle grades are often gatekeepers to students' entry into STEM-related careers. Page 10. Due to a current lack of qualified middle level STEM teachers, SDP has required teachers to work outside their expertise area. This has negatively impacted the teacher experience and the classroom quality. Page 2. This project will remedy this by training teachers to specifically fill the current gap in middle level STEM education. The significance of this project is to build capacity to provide high-quality teachers in places of high-need, enact system change, and address the current needs of the SDP. Page 5. Teachers completing this program will earn a Masters of Education and a Teacher Certificate in Middle Grades 4-8. Page 5.

Weaknesses:

None noted.

Reader's Score: 15

Selection Criteria - Quality of Project Design

- 1) The Secretary considers the quality of the design of the proposed project.
 - 2) In determining the quality of the design of the proposed project, the Secretary considers the extent to which the proposed project consists of a comprehensive plan that includes a description of:
 - i) The extent to which the proposed project is supported by strong theory (as defined in this notice).

ii) 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.

iii) The extent to which the proposed activities constitute a coherent, sustained program of training in the field.

iv) 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.

v) The extent to which the applicant demonstrates that it has the resources to operate the project beyond the length of the grant, including a multi-year financial and operating model and accompanying plan; the demonstrated commitment of any partners; evidence of broad support from stakeholders (e.g., State educational agencies, teachers unions) critical to the project's long-term success; or more than one of these types of evidence.

Note: In order to address this criterion, applicants are encouraged to develop logic models to demonstrate their project's theory of action. Applicants should connect available evidence of past history of successful outcomes to their logic models. Applicants may use resources such as the Pacific Education Laboratory's Education Logic Model Application (www.relpacific.mcrel.org/PERR.html) or the Northeast and Islands REL Skill Builder Workshops (www.relnei.org/events/skill-builder-archive.html) to help design their logic models. In addressing this criterion, applicants are also encouraged to connect the project design to the intended impact of the project, including an explanation of how the project will affect the preparation, placement, retention, induction, and professional development of teachers, and ultimately student achievement. Finally, applicants are encouraged to discuss the role and commitment of each partner and how the IHE and LEA(s) plan to sustain their partnership beyond the life of the grant.

Strengths:

The narrative stated that because Temple wants their residents to be experts in the STEM field, only students with a bachelor's degree in science, engineering and math will be admitted to the program. This will help so that teachers are highly qualified in the content areas. Page 2. The project will train and induct 53 new middle-level STEM teachers and support an equal number of veteran teachers through their development process. Page 7. By the end of the project, there will be a sustainable pipeline for sending excellent teachers into Philadelphia middle schools.

The project includes a pre-residency summer, a residency year, student coursework that will examine literacy methods, proven instructional practices and strategies to support critical and creative thinking. Page 2. During this time, residents will work closely with their mentor teacher who will acculturate them to middle school STEM while providing support and feedback. The narrative described the relationship as mutual. The veteran teachers will learn cutting edge practices from the resident while the resident will learn from the veteran's classroom experience. Page 3.

The project also includes an induction program that will last for 2 years after the residency. The components of the induction program were clearly spelled out on page 3 of the narrative.

Besides Temple's successful history of identifying and training strong educators for introduction into local schools, this program also builds on other successes, best practices and innovations developed and implemented in the PSD through two past venues. The first was the undergraduate middle grade teacher preparation program that was launched in 2009. Page 7. Secondly, the Educating Middle grades Teacher for Challenging Contexts in 2007. The new program evolved into the 4 + 1 accelerated undergraduate/graduate teacher preparation programs. Page 9. This program will serve as TTR's recruitment feeder and will increase Temple's capacity for preparing high-quality middle-grade teacher in STEM. To ensure that the curriculum will adequately prepare teachers in the area of STEM, both the Dean of the College of Science and Technology, and the Dean of Engineering have agreed to serve in advisory capacities to TTR.

This project logic model, showing the features of TTR and its associated evaluation questions was found in the narrative on page 14.

The details of the residency program, including its pedagogical framework, curriculum, and training, mentorship, induction, service obligation, and application process were explained in the narrative on pages 15 – 34.

TTR will use an online Web 2.0 tool called Edmodo to collaborate. The collaboration efforts between the fiscal agent, Temple University, partnering district institutions, and charter operators, and key personnel work to create an effective residency program.

The narrative supplied evidence that the project's network of support and resources will ensure that the program is

successful. Page 34.

The extensive outreach and recruitment structures to build capacity in this program were very well documented on pages 25-29. The pools of students that would be aggressively targeted were listed on page 27. Methods to market this program were also highlighted, which will help to spread the word about the residency and the stipend for that program. Page 27. The selection criteria for those TTRs was listed on pages 27 and 28. Because the criteria is very well spelled out, the candidates for this program have great potential for success in the residency program.

Rigorous criteria for selecting mentor teachers was documented in the narrative on page 21. This criteria is critical because the project wants to partner teachers with a mentor who has demonstrated effectiveness in the kinds of environments residents will soon enter. Page 21. The narrative provided a very complete description of the training and support that would be provided to the mentors on page 23-24. The details for the Summer Institute were found on page 23 of the narrative. It detailed what sorts of discussions would take place and the sessions that would be provided. The TTR requirements and repayment conditions were detailed in sufficient detail on page 31. Additional information concerning a default to this commitment was also added on page 31.

The induction program was detailed on page 31. This portion of the program is important because it is during those meetings that concerns will be addressed, new techniques can be shared for improving student achievement, and chat to help revitalize their passion can be share. During this time, feedback from evaluations, mentor-coaches, principles, will be critical and the data can help to get a teacher back on track if there are problems. Page 32 and 33.

Weaknesses:

The narrative did not supply enough detail concerning the sustainability of the project. Page 41. Additional information on "incentives and recruitment" would be helpful in articulating a strong plan.

Reader's Score: 41

Selection Criteria - Quality of the Management Plan

1. 1) The Secretary considers the quality of the management plan for the proposed project.

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

i) 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.

ii) The qualifications, including relevant training and experience, of key project personnel.

iii) The extent to which performance feedback and continuous improvement are integral to the design of the proposed project.

Note: In order to address this criterion, applicants are encouraged to include in the application narrative a clear, well thought-out implementation plan that includes annual timelines, key project milestones, and a schedule of activities with sufficient time for developing an adequate implementation plan, as well as a description and qualifications of the personnel who would be responsible for each activity and the level of effort each activity entails. Applicants may also describe how the partnering organizations will communicate and coordinate in order to achieve project goals.

Strengths:

The implementation timelines proposed on Appendix J, include specific milestones during all phases of the project. The project management plan has accounted for collaborative design time/ work, progress checks, gradual scaling up of the program, sustainability planning, and intentional implementation of lessons learned and best practices across all Temple teacher preparation programs. Page 34.

The project leadership and administrative team is composed of leaders at the highest level who coordinate faculty and

resources from across the colleges. These leaders will help to ensure ongoing collaborative relationships. The PI for the project has considerable experience in education and teacher preparation. Page 36. The management plan is adequate to achieve the objectives of the proposed project. This is important so that the project will be completed within budget and within the allotted time.

The PI, Program Manager, and Program Coordinator are responsible for ensuring that the program meets its regular milestones. Appendix J. The Program Manager will assess the success of the program through multiple means. Page 41. There is evidence that this performance feedback and continuous improvement due to that feedback will help to insure the success of the project.

The strong description includes a detailed breakdown of the communication steps between partners.

This continual feedback and communication are integral to the design of the proposed project in order to achieve project goals.

Weaknesses:

None Listed

Reader's Score: 20

Selection Criteria - Quality of the Project Evaluation

1. 1) The Secretary considers the quality of the evaluation to be conducted of the proposed project.

2) In determining the quality of the evaluation, the Secretary considers:

i) The extent to which the methods of evaluation provide valid and reliable performance data on relevant outcomes.

Note: In response to this selection factor, applicants are encouraged to include data on student learning.

ii) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

iii) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

Note: In addressing this criterion, applicants are encouraged to include a plan for how the project s evaluation will address the TQP Grant Program performance measures established by the Department under the Government Performance and Results Act of 1993 (GPRA), as well as the measures established in section 204(a) of the HEA. (The specific performance measures established for the overall TQP Grant Program are discussed under Performance Measures in section VI of this notice.) Further, applicants are encouraged to describe how the applicant s evaluation plan will be designed to collect both output data and outcome data, including benchmarks, to monitor progress. Finally, each applicant is encouraged to select an independent, objective evaluator who has experience in evaluating educational programs and who will play an active role in the design and implementation of the project s evaluation.

Strengths:

The evaluation plan is a mix of methods that incorporated both formative and summative assessment information which will be gained through internal and external evaluation approaches. Page 40 -41. There is an external assessment partner- WestEd that will conduct the summative evaluation of the educational program and key performance measures. Page 45.

The project narrative supplied outcome evaluation questions on page 42 and 43.

The project will provide a wide net of observation, communication, and feedback concerning the clinical experience the resident is having. This is important because changes or improvements can then happen quickly.

Qualitative sources will include observations, interviews, and discussions. Page 45. Quantitative data will be collected through surveys and data sets. Page 45.

Weaknesses:

The project did not have a strong formative evaluation plan listed.

Reader's Score: 18

Priority Questions

Competitive Preference Priority 1 - Promoting STEM Education

1. Projects that are designed to address one or both of the following priority areas:

a) Increasing the opportunities for high-quality preparation of, or professional development for, teachers or other educators of STEM subjects.

b) Increasing the number of individuals from groups traditionally underrepresented in STEM, including minorities, individuals with disabilities, and women, who are teachers or educators of STEM subjects and have increased opportunities for high-quality preparation or professional development.

Note: Applicants that respond to Competitive Preference Priority 1 and Absolute Priority 1 are still required to implement the required reforms within the whole teacher preparation program, as reflected in sections (a) and (b) of Absolute Priority 1.

In responding to this competitive preference priority, applicants are encouraged to include the following elements in their proposed projects:

1) Institutional collaboration to ensure that students in a college of education who intend to teach STEM courses have access to courses that build appropriate content knowledge. Such students should have access to course sequencing that is equal to the course sequencing for other STEM majors outside the college of education.

2) Emphasis on hands-on and inquiry-based STEM experiences for prospective teachers, including dedicated research or laboratory experiences, STEM discipline-specific pedagogical instruction, and explicit instruction in the interdisciplinary connections between learning sciences and STEM instruction; and

3) Early and multiple field-based instructional experiences for prospective teachers that are structured to provide exposure to a variety of teaching and learning environments, and that are coordinated and aligned with the teacher preparation curriculum.

Strengths:

The narrative clearly describes the components of the project and how they involve STEM education at the pre-service and the in-service level. Pages 1-4

Weaknesses:

None noted

Reader's Score: 5

Competitive Preference Priority 2 - Implementing Academic Standards

1. Projects that are designed to support the implementation of internationally benchmarked, college- and career-ready academic standards held in common by multiple States and to improve instruction and learning, including projects in the following priority areas:

a) The development or implementation of professional development or preparation programs aligned with those standards.

b) Strategies that translate the standards into classroom practice.

Strengths:

The narrative describes how the residents will use the Common Core Standards and how they will share their experiences and professional development in this area with veteran teachers. Page 4

Weaknesses:

The CCP could have been strengthened with additional information concerning how the standards will be implemented back in the classroom.

Reader's Score: 1

Status: Submitted

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