

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

Status: Submitted

Last Updated: 08/11/2014 05:41 PM

## Technical Review Coversheet

Applicant: Georgia State University (U336S140036)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	15	13
<b>Quality of Project Design</b>		
1. Project Design	45	43
<b>Quality of the Management Plan</b>		
1. Management Plan	20	20
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	20	20
<b>Priority Questions</b>		
<b>Competitive Preference Priority 1</b>		
<b>Promoting STEM Education</b>		
1. CPP 1	5	5
<b>Competitive Preference Priority 2</b>		
<b>Implementing Academic Standards</b>		
1. CPP 2	2	1
<b>Total</b>	<b>107</b>	<b>102</b>

# Technical Review Form

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

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

Applicant: Georgia State University (U336S140036)

## 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:

- Meetings with "partners from the 2009-2014 TQP program" were held to make an accurate needs-assessment and set forth an effective plan of action (p.7).
- System improvements to include residents to be a part of an opening and closing school experience, based on new GaDOE guidelines, will be included (p.8).
- Statistics highlighting the achievement gap in STEM subject areas are provided (pgs. 8-9).
- Strategies to provide evidence of and address teacher shortages in Special Education and English as a Second Language areas are provided (pgs. 9-10).

### Weaknesses:

- A plan for building capacity is given, but general statements are provided rather than specific details of exactly how this will happen (pgs. 7-8).
- Statistics concerning teachers and students in the state of Georgia are provided on pgs. 7-8; however, providing local statistics would strengthen the case of this being a high-need area.

Reader's Score: 13

### 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](http://www.relpacific.mcrel.org/PERR.html)) or the Northeast and Islands REL Skill Builder Workshops ([www.relnei.org/events/skill-builder-archive.html](http://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:**

- A strong theoretical design which is based on the theory of change and collaboration between specialized learning communities and schools is outlined (p. 10).
- A logic model that clearly outlines inputs, outputs, and outcomes is provided (p. 11).
- A plan for deepening knowledge, changing values, and developing skills are presented as key components of the theory of change (p.12).
- Plans of action for both pre- and post- bachelorette programs are provided (p.13).
- Research from the previous teacher residency program provides evidence that the improvements made in the proposed design will produce effective, diverse graduates who will remain in the teaching field (pgs. 13-14).
- A collaborative cohort structure exists to provide rigorous, high quality experiences (p. 14).
- A strong residency design based on content learning through authentic learning experiences (p.16), careful selection criteria of teacher residents (p.16), and high quality mentor recruitment and training (pgs. 18-20) are detailed.
- Mentor-resident partnerships will be created using the data-driven Briggs Type Indicator-Form M (p. 20).
- Ten years of work with PDSs has provided evidence of the positive effects on student learning and teacher retention when collaboration is maximized (p.22).
- Professional development opportunities in STEM (p.22) and detailed induction initiatives (p. 23) help to maximize the potential of teacher retention beyond the residency (pgs. 23-24).
- A "menu of options for PDSs" were created to tailor needs to specific districts for maximum benefit (p. 25), and their descriptions are included in the appendices.
- Letters of support are included in the appendices to give evidence of the probability of sustainability (p. 25).

#### **Weaknesses:**

- Although a positive impact on student achievement is mentioned (p. 21), statistics to provide evidence of an actual increase in student achievement is not provided.
- Recruitment efforts are mentioned generally on pgs. 14 and 17, but a better description of the recruitment strategies and marketing would strengthen this section.

Reader's Score: 43

### 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:

-A timeline of events in the preplanning period are clearly defined (p.30).

-A timeline of events from preplanning through year five are clearly defined, and objectives and milestones are described (pgs. 31-36).

-Key personnel are thoroughly described, and their resumes are included.

-Responsibilities of key personnel are clearly labeled within the detailed timeline (pgs. 31-36).

#### 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:**

- The project evaluation will be based on "Stufflebeam's CIPP Model of Program Evaluation" for consistency and thoroughness (p. 38).
- Linking of student achievement to residents and mentor teachers is a focus of the evaluation program (p. 38).
- Quantitative and qualitative evaluation methods are clearly described and connected to the objectives found in the logic model (pgs. 39-47).
- Performance objectives, their data sources, indicators, targets for indicators, timeline, and the responsible party are clearly detailed on pgs. 48-59.
- Program objectives, their data sources, indicators, targets for indicators, timeline, and the responsible party are clearly detailed on pgs. 61-69).

**Weaknesses:**

NA

**Reader's Score:      20**

**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:**

- A detailed plan for ensuring that students have access to appropriate courses rooted in STEM subjects is outlined through the partnerships with the College of Arts and Sciences and the College of Education at Georgia State University (GSU) (p. 1).
- Utilization of the "roadmap to redesign" (p. 2) plan to appropriately provide professional development for STEM educators is described (pgs. 1-2).
- Various programs to aid in the recruitment of underrepresented groups into STEM will be utilized (p.2).
- GSU is currently "the state's largest producer of teachers who are members of underrepresented populations" (p.2).
- A clear plan for ensuring early and multiple field-based instructional experiences is provided (pg.3).

**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:**

-Commitment to improving instruction and learning through implementation of college- and career- ready academic standard is evident in the state's participation in the "Race to the Top" initiative (p.4).

**Weaknesses:**

-Explanation beyond the mentioning of the implementation of the Common Core State Standards (pg. 4) needs to be included.

**Reader's Score: 1**

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**Status:** Submitted  
**Last Updated:** 08/11/2014 05:41 PM

Status: Submitted

Last Updated: 08/09/2014 06:15 PM

## Technical Review Coversheet

Applicant: Georgia State University (U336S140036)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	15	13
<b>Quality of Project Design</b>		
1. Project Design	45	44
<b>Quality of the Management Plan</b>		
1. Management Plan	20	20
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	20	20
<b>Priority Questions</b>		
<b>Competitive Preference Priority 1</b>		
<b>Promoting STEM Education</b>		
1. CPP 1	5	5
<b>Competitive Preference Priority 2</b>		
<b>Implementing Academic Standards</b>		
1. CPP 2	2	1
<b>Total</b>	<b>107</b>	<b>103</b>

# Technical Review Form

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

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

Applicant: Georgia State University (U336S140036)

## 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 project called Collaboration and Resources for Encouraging and Supporting Transformations in Education (CREST-Ed) with the aim of enhancing pre-baccalaureate teacher preparation, and enhancing post-baccalaureate teacher preparation programs through residencies promoting STEM through internationally benchmarked academic standards. The project includes five urban school districts. The state needs high number of certified STEM teachers. The capacity building includes targeted placements of teacher residencies, district sponsored residency programs, professional development, and social network evaluation. The project will thus effectively build local capacity to deliver effective services to target population.
- (ii) The main systemic change that the project seeks to implement is helping the district and local teacher residency programs to align with the new requirements that are outlined by the Georgia Professional Standards Commission and the Georgia Department of Education.
- (iii) The proposal has indicated that the project addresses the shortage of Highly Qualified (Hi-Q) teachers in the target districts, and at the state level the shortage of fully certified teachers, especially with a fast growing non-English-speaking student population.

### Weaknesses:

- (i) Although a plan for capacity building is indicated, specifics about the plan for capacity building. (pages 8-9).
- (iii) The proposal has not provided any details about the local needs that necessitates the project. Most of the demographics provided are at the state levels. (pages 7-8).

Reader's Score: 13

### 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](http://www.relpacific.mcrel.org/PERR.html)) or the Northeast and Islands REL Skill Builder Workshops ([www.relnei.org/events/skill-builder-archive.html](http://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 strong theory of change logic model based on evidence based research. The framework for the theory of change for the project is with the three core steps including deepening knowledge, changing values, and developing skills. The program design elements have been strategically chosen to enhance teacher preparation.

(ii) The project has provided details about the recruitment, selection and training of participants and mentors. The residency activities, the high expectations from both the participants and mentors, and recruitment and training of both the residents and mentors, and the data-based pairings and activities, suggest that the professional development activities provided by the project are of quality, rigor, and sufficient intensity to train effective teachers.

(iii) The project has a good structure in its recruitment/selection strategies, residential experiences, induction support and professional development, residents' impact on schools and students, collaborations to maximize effectiveness, and a tailored menu of services for each components of the project. The strength of the design and partnerships provides this project with a high level of coherent structure. The resources to operate the project beyond the grant will come from the host university, the partnering school districts and other significant partners.

(iv) The hallmark of this project is the extraordinary partnership the is involved in the development of the project. The proposal has successfully provided a list of all collaborating partners that includes the host university, the school districts and community sponsors. The proposal has provided details how the collaboration will work during and beyond the funding period.

(v) The letters of support indicate a strong sustainability factor for the project. In the nature of proposal partnerships and the ability to seek, secure and sustain several diverse funding sources, this project can be considered sustainable.

**Weaknesses:**

The project has not provided details about the recruitment process of the participants (pages 15-16).

**Reader's Score: 44**

**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. The proposal has broken down the whole project management time-line into before, during and after the project funding periods. Annual project activities, outcomes, key participants, and staff responsible are provided. Each of the activity is linked to the priorities to identify and align them with project objectives.

(ii) The project will be implemented by a group of qualified personnel. The principal investigators are all qualified, experienced and occupy high-end positions in the host institution. Moreover, the proposal has clearly indicated their time-commitment to the project.

(iii) The project has provided a plan for feedback loops. While this aspect is fully explained in project evaluation, it is indicated that there will be annual sharing of project evaluations, while immediate feedback will be provided by the smaller action research projects. (pages 37-38).

**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 based on the project logic model and will be informed by the GPRA indicators. The evaluation combines five evaluation approaches: the objective performance measures, utilization-focused evaluation, the logic model approach, the CIPP model, and finally Guskey's Five Levels of Professional Development. Each of these approaches are explained and combined into a quasi-experimental study with a matched comparison school groups. High end data analyses will be conducted.

(ii) The project evaluation plan is detailed and has guiding questions that reflect project goals and objectives. Standardized instruments such as Georgia Teacher Keys Effectiveness System, the Teacher Efficacy Scale, the Teacher Use of Technology, along with qualitative methods such as interviews, focus groups, and observations. The data collected, the methods involved, the analyses conducted, all are appropriate to the project goals and objectives. For instance the Bayesian concepts will be used along with social network research design with randomization.

(iii) The project formative evaluation will be based on using GPRA indicators, and how the project timeline will help in periodic monitoring and assessment of project success.

**Weaknesses:**

No weaknesses.

**Reader's Score: 20**

**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 project has provided an excellent overview of how the project will address the STEM competitive preference priority. The applicant has already worked on past NSF and Noyce Grants for developing STEM initiatives. The CREST-Ed participants will receive funds designated to specifically support STEM professional development for teachers. The PDS framework will be used to offer hands-on Project Based Learning (BPL), co-teaching, and deeper math content, including interactive software and changing the learning paradigm. The initiative also includes hands on inquiry based STEM experiences for prospective teachers, and field-based instructional experiences.

**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 proposal has indicated that it will use the Race to the Top standards for the Academy of Future Teachers. The initiative includes a rigorous and intense 3-week summer experience, where math and science concepts are reinforced. The main two models used will be the teacher residents, and the student teachers.

**Weaknesses:**

The project has not provided any rationale or critical information of the use of the Race to the Top standards. It has not discussed how it is internationally bench-marked academic standards. (page 4).

**Reader's Score:** 1

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**Status:** Submitted

**Last Updated:** 08/09/2014 06:15 PM

Status: Submitted

Last Updated: 08/09/2014 04:19 PM

## Technical Review Coversheet

Applicant: Georgia State University (U336S140036)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
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<b>Quality of Project Design</b>		
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<b>Competitive Preference Priority 2</b>		
<b>Implementing Academic Standards</b>		
1. CPP 2	2	1
<b>Total</b>	<b>107</b>	<b>102</b>

# Technical Review Form

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

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

Applicant: Georgia State University (U336S140036)

## 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 STEM achievement gaps in Georgia remain significant and highlight an urgent need for highly qualified STEM teachers. Many positions remain vacant, and a significant population of teachers in Georgia are teaching without full certification in their content areas. Page 8. Student performance in STEM areas needs improvement. This data provided the impetus for the partners to look for an immediate solution concerning the preparation of teachers in STEM areas. The project introduces two initiatives that will help students to develop the skills for college and career readiness Academy for Future Teachers and Early College. The statistics on these two programs provide evidence that a great majority of these students are likely to go into STEM fields. Page 4. This is important because there is a critical need for high quality teachers in this geographic area- especially in the areas of math and science. Page 6. This project will prepare high quality, new teachers through targeted professional development, which will bolster the existing workforce. Page 7. The project design is important because the process will contribute new educators to communities in which they have familiarity with the cultural and local assets. Research shows that extended field experience and hands-on experimental activities in STEM university classes has been shown to increase the number of underrepresented students entering STEM fields. Page 10. Districts have expressed an interest in implementing their own residency models using individuals who are trained within their systems. Page 7. The project will build local capacity through this professional development.

### Weaknesses:

The data on pages 8 and 9 contained state demographics. Additional information about local demographics would make this a stronger description of need/significance.

A plan for building capacity contained general statements. The narrative would have been strengthened with more specific statements concerning how that change would take place. Page 7 and 8.

Reader's Score: 13

### Selection Criteria - Quality of Project Design

1. 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:

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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](http://www.relpacific.mcrel.org/PERR.html)) or the Northeast and Islands REL Skill Builder Workshops ([www.relnei.org/events/skill-builder-archive.html](http://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 project introduces two initiatives that will help students to develop the skills for college and career readiness Academy for Future Teachers and Early College. The statistics on these two programs provide evidence that a great majority of these students are likely to go into STEM fields. Page 4

At the high school level, Academy for Future Teachers will incorporate an initiative targeting high school students. Because this initiative attracts a large number of students from underrepresented groups, this venture can serve as a pipeline for potential teacher candidates in STEM areas. Page 2

Early College which compresses the time that it takes for students to earn a high school diploma and to complete the first two years of college. This initiative is especially beneficial to youth from underserved and low-income communities as it allows students to experience the social and academic structures of college with lowered long-term expenses. Outcomes of this program include higher self-efficacy among students, higher levels of overall academic achievement and higher rates of attendance. Page 5

Teacher residents will help to co-teach the three week Academy for Future Teachers program which will deepen their knowledge of content in that area of study and will provide opportunity to practice teaching STEM to high-need, diverse student populations. Page 22 -23.

The project is grounded in research which strongly suggests that the residency model has a significant impact on the quality of new teachers entering the field. Page 10 Research shows that extended field experience and hands-on experimental activities in STEM university classes has been shown to increase the number of underrepresented students entering STEM fields. Page 10.

Partner universities will focus on engagement and hands-on STEM experiences for students. Research has shown that experiential educational activities provide for deeper more sustained learning for students. Page 12. For the pre and post-baccalaureate teachers, the acquisition of these skills will strengthen the quality of the teachers being trained to work in these high needs schools.

PLCs are also part of this project. Research shows participation in collaborative cohorts-PLCs will further build the resident teacher's skills and will also provide a renewal opportunity for veteran teachers. Page 12. CCLCs allow teachers the opportunity to reflect on their previous and current practices and to share their skill sets with others. This practice has been identified as one that helps to contribute to the success of an effective teachers.

The project will involve a residency program. Data from the previous teacher residency program supported through a previous TQP grant indicates that the GSU model integrates a quality, intensity, and duration that has produced well-prepared teachers who remain in the field much longer than those teachers who have not participated in a residency program. Page 14. This residency program will provide course work each Wednesday, on campus, that will include middle and secondary STEM area. Page 16.

The project does know the populations from which they will recruit possible residents. Page 14.

Residents and faculty will be supported in developing professional learning communities during an initial two day training and throughout the entire residency experience. Page 15.

The project does involve digital communication and collaboration which are critical as these cohorts share and learn from each other. Page 15. Research suggests that relationships and collegial support are central for the retention, increased professionalism, and depth of engagement of educators. The stronger the professional network, the more likely educators are to stay in the profession, feel a greater sense of efficacy, and engage in deeper levels of conversation around teaching and learning. Thus, the building and supporting professional relationships and networks through both PLCs (CCLCs) and digital networks become a critical way to sustain the work of teaching and learning and ultimately of change. Page 27.

The criteria for the resident candidates was spelled out in detail on page 17. The terms for the living wage, and the resulting obligations if the resident does not meet the three year teaching obligation were also detailed on page 18.

The Teacher Residents will work with highly qualified mentors. The narrative provided significant criteria concerning how these mentors would be selected and trained. Page 18 and 19. During monthly meetings, mentors will be provided PD from a variety of sources. Page 19. Sample topics for these meetings was included on page 20.

The project will involve the innovative and data-driven approach to match the mentor-resident dyads through the Myers-Briggs Type Indicator Form M. Data will be analyzed at the end of the residency to determine if the success of the experience and if the practice should be used in the future. Page 20.

The project is also innovative because it is working in partnership with NCTAF to provide the STEM Learning Studios resources to GSU staff for resident/teacher professional development.

The narrative describes the induction plan, which included when the meetings would take place and some possible topics of discussion. Page 24. It also documented a Teacher Transformation Institute which provides opportunities to share innovative strategies and initiatives to pre-service, in-service, and other partnership personnel.

All of these methods mentioned will help to establish a robust network of future STEM teachers and teacher leaders.

The narrative does provide a statement and a chart concerning multi-year financial and operational sustainability on page 25 and 26. This provides evidence that the project has thought about the sustainability of this project. The narrative states that the resources to operate the project beyond the length of the grant will come from GSU, participating school districts, and their respective communities. Page 25. The narrative also stated that through the social networking, the successful efforts of the grant will also be sustained after the CREST-Ed Grant end. Page 28.

#### **Weaknesses:**

Additional detail to flesh out the section on recruitment would be helpful.

Though we know the populations the project will draw from, the marketing or other effects to get the word out was not detailed. Page 14. On page 17 the narrative stated that partner districts will assist with recruitment through their various communities and communication sources. Additional information to clarify the sources and communities was missing.

The two day initial PLC trainings were listed, but not enough information concerning what would happen at that meeting was supplied for the reader. Page 15

**Reader's Score: 43**

## **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:**

A very thorough management plan was included in the narrative on pages 31 – 36. The chart provided information concerning key project milestones, the project activities, outcomes, key participants, and who will be responsible for those activities. The plan is very inclusive, from recruitment all the way to induction. This information is important so that the objectives of the project will be completed on time and within budget.

The key personnel for this project are qualified to run the program. They have adequate experience and previous training. Pages 36-37.

Performance feedback and continuous improvement are integral to the design of the proposed project. The partnering organizations will communicate and coordinate each summer to review the evaluation outcomes from the previous year/years. The principal investigators will closely monitor achievement of the programs milestones, so that they can provide additional support when partners may be experiencing difficulty achieving their goals. There is also a communication plan in place for other times of the year which will include: quarterly advisory committees, emails, social network meetings, and conference calls. Page 38

### **Weaknesses:**

None noted.

**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 was extremely well documented, thorough, feasible, and appropriate for the goals, objectives, and outcomes of the proposed project. There is great probability that the methods of evaluation will provide performance feedback and permit the periodic assessment necessary to move the project forward in achieving the intended outcomes. There are approaches built into the project and after the dissemination of evaluation results to the partners it can be used for program improvement. Page 38. The evaluation methods included both formative and summative evaluations. It also included quantitative data collection, such as the evaluation of student achievement between CREST-Ed schools and schools without this residency program. Page 40. Student achievement will also be gathered in STEM classrooms and will include grades, scores on standardized tests, and the Georgia Student Growth Model. Page 42. The project evaluation will also involve qualitative data collection. Page 43 and 44. Those methods will include observer memo and note-taking. The evaluation included the performance objectives. Charts were included to spell out the data source, the indicator, the targets for those indicators, a timeline, and responsible party. The evaluation will provide performance feedback and permit assessment of progress toward achieving intended outcomes.

**Weaknesses:**

None noted.

**Reader's Score: 20**

**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 addressed CPP1 on page 1 of the narrative. The summary stated that there will be institutional collaboration to ensure that students in the College of Education who intend to teach STEM courses have access to course that build appropriate content knowledge. The partnership between the College of Arts and Sciences and the College of Education will ensure that STEM and the other pre-service and in-service teachers receive high quality preparation and continued education in the STEM content areas. The goal for this partnership is to change from a tell me to a involve me model. This will help so that the learning environment is student-centered and not instructor-led. It will be beneficial to teachers as it will provide an example of innovative practices in delivering STEM instruction. This project will help to increase the number of individuals from underrepresented groups to go into STEM classrooms.

**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:**

Page 4 of the narrative provided some information about CPP2- Implementing Internationally Benchmarked College and Career Ready Academic Standards. The narrative stated that they will implement Common Core Standards in the teacher preparation programs.

**Weaknesses:**

The CPP could have been strengthened with additional information concerning the strategies to implement into the classroom practice.

**Reader's Score: 1**

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**Status:** Submitted  
**Last Updated:** 08/09/2014 04:19 PM

