Technical Review Coversheet

Applicant: Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396C100434)

Reader #1:

<table>
<thead>
<tr>
<th></th>
<th>POINTS POSSIBLE</th>
<th>POINTS SCORED</th>
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<tbody>
<tr>
<td><strong>Summary Statement</strong></td>
<td></td>
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<tr>
<td>1. Summary Statement</td>
<td>N/A</td>
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<tr>
<td><strong>Selection Criteria</strong></td>
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<tr>
<td>1. A. Need for the Project and Quality of the Project Design (up to 25 Points)</td>
<td>25</td>
<td>23</td>
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<tr>
<td>2. C. Experience of the Eligible Applicant (up to 25 Points)</td>
<td>25</td>
<td>20</td>
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<td>3. E. Strategy and Capacity to Further Develop and Bring to Scale (up to 5 Points)</td>
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<td>4. F. Sustainability (up to 10 Points)</td>
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<tr>
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<td>1</td>
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<td>3. Competitive Preference 7: Innovations To Address the Unique Learning Needs of Students With Disabilities and Limited English Proficient Students (0 or 1 Point)</td>
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<tr>
<td>4. Competitive Preference 8: Innovations That Serve Schools in Rural LEAs (0, 1, or 2 Points)</td>
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Technical Review Form

Development 15: 84.396C
Reader #1:
Applicant: Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396C100434)

Summary Statement
1. Summary Statement

Selection Criteria
1. A. Need for the Project and Quality of the Project Design (up to 25 Points)

In determining the need for the project and quality of the design of the proposed project, the Secretary considers the following factors:

(1) The extent to which the proposed project represents an exceptional approach to the priorities the eligible applicant is seeking to meet (i.e., addresses a largely unmet need, particularly for high-need students, and is a practice, strategy, or program that has not already been widely adopted).

(2) The extent to which the proposed project has a clear set of goals and an explicit strategy, with the goals, objectives, and outcomes to be achieved by the proposed project clearly specified and measurable and linked to the priorities the eligible applicant is seeking to meet.

Strengths

The project plan is based on the findings of a small scale 2 year project that showed promising student achievement results by using an integrated English Language Development and Science approach to learning (p. 2). This approach to addressing ELD would meet the requirements of the proposal as being an exceptional approach to the priorities sought by the applicant.
The plan to provide a development guidebook of strategy and curriculum for integrating ELD and science for teachers and professional developers is a strength of the proposal.

Weaknesses

The applicant does not describe the criteria for choosing the teachers for the project.

Reader's Score: 23

2. C. Experience of the Eligible Applicant (up to 25 Points)

In determining the experience of the eligible applicant, the Secretary considers the following factors:

(1) The past performance of the eligible applicant in implementing projects of the size and scope proposed by the eligible applicant.

(2) The extent to which an eligible applicant provides information and data demonstrating that -

(a) In the case of an eligible applicant that is an LEA, the LEA has -

(i) Significantly closed the achievement gaps between groups of students described in section 1111(b)(2) of the ESEA, or significantly increased student achievement for all groups of students described in such section; and

(ii) Made significant improvements in other areas, such as graduation rates or increased recruitment and placement of high-quality teachers and principals, as demonstrated with meaningful data; or

(b) In the case of an eligible applicant that includes a nonprofit organization, the nonprofit organization has significantly improved student achievement, attainment, or retention through its record of work with an LEA or schools.

Strengths

The institute was created in 1995. Since that time the applicant has conducted extensive work with a vast number of schools. This is documented in this application.

The pilot project associated with this project has shown significant gains in student achievement as presented on page 15.

Weaknesses
Most of the work performed by the applicant has been in the form of trainings to teachers at the request of the individual school districts and did not provide the opportunity to collect student outcome data. The experience of the co-applicant is not addressed.

Reader's Score: 20

3. E. Strategy and Capacity to Further Develop and Bring to Scale (up to 5 Points)

In determining the quality of the strategy and capacity to further develop and bring to scale the proposed project, the Secretary considers:

(1) The number of students proposed to be reached by the proposed project, and the capacity of the eligible applicant and any other partners to reach the proposed number of students during the course of the grant period.

(2) The eligible applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to further develop and bring to scale the proposed practice, strategy, or program, or to work with others (including other partners) to ensure that the proposed practice, strategy, or program can be further developed and brought to scale, based on the findings of the proposed project.

(3) The feasibility of the proposed project to be replicated successfully, if positive results are obtained, in a variety of settings and with a variety of student populations. Evidence of this ability includes the availability of resources and expertise required for implementing the project with fidelity, and the proposed project's evidence of relative ease of use or user satisfaction.

(4) The eligible applicant's estimate of the cost of the proposed project, which includes the start-up and operating costs per student per year (including indirect costs) for reaching the total number of students proposed to be served by the project. The eligible applicant must include an estimate of the costs for the eligible applicant or others (including other partners) to reach 100,000, 250,000, and 500,000 students.

(5) The mechanisms the eligible applicant will use to broadly disseminate information on its project so as to support further development or replication.

Strengths

IFI's partnership in the regional project Baysci which supports elementary school science development in more than 85 elementary school districts (p. 20) will allow the strategies developed in the project to be carried over to the Baysci project which would lead to implementation in a much wider area. In addition, IFI also conducts numerous professional development workshops throughout the 85 districts. IFI plans to incorporate materials and processes
developed within this project into those workshops. An additional strength of this project is that it can easily be replicated since it requires no specialized curriculum to implement the materials and processes. This flexibility will go a long way in encouraging other systems to consider implementing this project in their own districts.

**Weaknesses**

None found.

**Reader's Score: 5**

**4. F. Sustainability (up to 10 Points)**

In determining the adequacy of resources for the proposed project, the Secretary considers the following factors:

(1) The extent to which the eligible applicant demonstrates that it has the resources, as well as the support from stakeholders (e.g., State educational agencies, teachers' unions) to operate the project beyond the length of the Development grant.

(2) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the eligible applicant and any other partners at the end of the Development grant.

**Strengths**

The application does include a commitment from SVUSD and other partners directly involved in the implementation of the program (appendix D). The plan to provide a development guidebook of strategy and curriculum for integrating ELD and science both for teachers and professional developers is a plus.

**Weaknesses**

Although the applicant does show the support of those institutions that will be working with the project, there is no evidence of community or state level support for other entities. There is no letter of support showing that the California Department of Education is supportive of the project or even the IFI organization (Appendix D). Without the commitment of others, sustainability beyond the length of the grant is questionable.

**Reader's Score: 5**

**5. G. Quality of the Management Plan and Personnel (up to 10 Points)**
In determining the quality of the management plan and personnel for the proposed project, the Secretary considers:

(1) 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.

(2) The qualifications, including relevant training and experience, of the project director and key project personnel, especially in managing projects of the size and scope of the proposed project.

Strengths

The staff selected to oversee the project have the skills and expertise to successfully implement the project with strong backgrounds in curriculum and pedagogy.

Weaknesses

The timeline (p. 25) is not well developed. It does not specify the person(s) responsible for any of the tasks listed. This can have a direct negative impact on operational accountability.

Reader's Score: 5

Competitive Preference

1. Competitive Preference 5: Innovations for Improving Early Learning Outcomes (0 or 1 Point)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to improve educational outcomes for high-need students who are young children (birth through 3rd grade) by enhancing the quality of early learning programs. To meet this priority, applications must focus on:

(a) improving young children’s school readiness (including social, emotional, and cognitive readiness) so that children are prepared for success in core academic subjects (as defined in section 9101(11) of the ESEA);
(b) improving developmental milestones and standards and aligning them with appropriate outcome measures; and
(c) improving alignment, collaboration, and transitions between early learning programs that serve children from birth to age three, in preschools, and in kindergarten through third grade.

Strengths
Not addressed in this application.

Weaknesses

Reader's Score: 0

2. Competitive Preference 6: Innovations That Support College Access and Success (0 or 1 Point)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to enable kindergarten through grade 12 (K-12) students, particularly high school students, to successfully prepare for, enter, and graduate from a two- or four-year college. To meet this priority, applications must include practices, strategies, or programs for K-12 students that

(a) address students’ preparedness and expectations related to college;
(b) help students understand issues of college affordability and the financial aid and college application processes; and
(c) provide support to students from peers and knowledgeable adults.

Strengths

Not addressed in this application.

Weaknesses

Reader's Score: 0

3. Competitive Preference 7: Innovations To Address the Unique Learning Needs of Students With Disabilities and Limited English Proficient Students (0 or 1 Point)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to address the unique learning needs of students with disabilities, including those who are assessed based on alternate academic achievement standards, or the linguistic and academic needs of limited English proficient students. To meet this priority, applications must provide for the implementation of particular practices, strategies, or programs that are designed to improve academic outcomes, close achievement gaps, and increase college- and career-readiness, including increasing high school graduation rates (as defined in this notice), for students with disabilities or limited English proficient
The project is aimed at providing innovative methods for teaching English Language Development for Limited English Proficient students.

4. Competitive Preference 8: Innovations That Serve Schools in Rural LEAs (0, 1, or 2 Points)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to focus on the unique challenges of high-need students in schools within a rural LEA (as defined in this notice) and address the particular challenges faced by students in these schools. To meet this priority, applications must include practices, strategies, or programs that are designed to improve student achievement or student growth, close achievement gaps, decrease dropout rates, increase high school graduation rates, or improve teacher and principal effectiveness in one or more rural LEAs.

Not addressed in this application.

Reader's Score: 1

Reader's Score: 0
Technical Review Coversheet

**Applicant:** Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396C100434)

**Reader #2:**

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Technical Review Form

Development 15: 84.396C
Reader #2:
Applicant: Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396C100434)

Summary Statement
1. Summary Statement

Selection Criteria
1. A. Need for the Project and Quality of the Project Design (up to 25 Points)

In determining the need for the project and quality of the design of the proposed project, the Secretary considers the following factors:

(1) The extent to which the proposed project represents an exceptional approach to the priorities the eligible applicant is seeking to meet (i.e., addresses a largely unmet need, particularly for high-need students, and is a practice, strategy, or program that has not already been widely adopted).

(2) The extent to which the proposed project has a clear set of goals and an explicit strategy, with the goals, objectives, and outcomes to be achieved by the proposed project clearly specified and measurable and linked to the priorities the eligible applicant is seeking to meet.

Strengths

A highly unique approach combining English Language Development and Science education. Elementary teachers are often weak in science content and skills. Science can be overlooked in the daily elementary school schedule, and often students matriculate to upper grades with a weak foundational knowledge in science. Developing teacher ability to integrate English language skills is equally important. Four of the five schools in the school district have failed to meet AYP.
2. C. Experience of the Eligible Applicant (up to 25 Points)

In determining the experience of the eligible applicant, the Secretary considers the following factors:

(1) The past performance of the eligible applicant in implementing projects of the size and scope proposed by the eligible applicant.

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(a) In the case of an eligible applicant that is an LEA, the LEA has -

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(ii) Made significant improvements in other areas, such as graduation rates or increased recruitment and placement of high-quality teachers and principals, as demonstrated with meaningful data; or

(b) In the case of an eligible applicant that includes a nonprofit organization, the nonprofit organization has significantly improved student achievement, attainment, or retention through its record of work with an LEA or schools.

Strengths

Exploratium was established with National Science Foundation funding in 1995 and the organization has extensive experience in providing staff development to area teachers.

Weaknesses

Grant experience other than with NSF was not cited. School experience with grant funding could be discussed further.
3. E. Strategy and Capacity to Further Develop and Bring to Scale (up to 5 Points)

In determining the quality of the strategy and capacity to further develop and bring to scale the proposed project, the Secretary considers:

(1) The number of students proposed to be reached by the proposed project, and the capacity of the eligible applicant and any other partners to reach the proposed number of students during the course of the grant period.

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(5) The mechanisms the eligible applicant will use to broadly disseminate information on its project so as to support further development or replication.

**Strengths**

Program will increase in the number of highly effective elementary teachers teaching ELD and Science, as well as create a reduction in the achievement gap in both ELD and Science. The program will serve all elementary schools in the small district.

**Weaknesses**

None noted.

Reader's Score: 5
4. F. Sustainability (up to 10 Points)

In determining the adequacy of resources for the proposed project, the Secretary considers the following factors:

(1) The extent to which the eligible applicant demonstrates that it has the resources, as well as the support from stakeholders (e.g., State educational agencies, teachers' unions) to operate the project beyond the length of the Development grant.

(2) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the eligible applicant and any other partners at the end of the Development grant.

Strengths

The varied components of the program: workshops, study groups, on-line resources, and leadership development provide for a comprehensive approach that will ensure sustainability. The integration of the science process skills will promote critical thinking skills throughout the curriculum. The proposal described long term support for the project from the school district.

Weaknesses

None noted.

Reader's Score: 10

5. G. Quality of the Management Plan and Personnel (up to 10 Points)

In determining the quality of the management plan and personnel for the proposed project, the Secretary considers:

(1) 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.

(2) The qualifications, including relevant training and experience, of the project director and key project personnel, especially in managing projects of the size and scope of the proposed project.

Strengths

Program objectives are clearly delineated, and supported by extensive research. The design of the initiative is based on the findings from a successful two year pilot program. The results demonstrated a reduction of the achievement gap and yielded positive outcomes in English language...
abilities. Well articulated work plan aligned to specific outcomes.

**Weaknesses**

Cost effectiveness should be considered for the small size of the district and the relatively low number of teachers to be served. Time line should include clearly defined responsibilities, as identified by criteria.

**Reader's Score: 8**

**Competitive Preference**

1. **Competitive Preference 5: Innovations for Improving Early Learning Outcomes** (0 or 1 Point)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to improve educational outcomes for high-need students who are young children (birth through 3rd grade) by enhancing the quality of early learning programs. To meet this priority, applications must focus on:

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(b) improving developmental milestones and standards and aligning them with appropriate outcome measures; and
(c) improving alignment, collaboration, and transitions between early learning programs that serve children from birth to age three, in preschools, and in kindergarten through third grade.

**Strengths**

Not addressed in proposal.

**Weaknesses**

**Reader's Score: 0**

2. **Competitive Preference 6: Innovations That Support College Access and Success** (0 or 1 Point)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to enable
kindergarten through grade 12 (K-12) students, particularly high school students, to successfully prepare for, enter, and graduate from a two- or four-year college. To meet this priority, applications must include practices, strategies, or programs for K-12 students that

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Reader's Score: 0

3. Competitive Preference 7: Innovations To Address the Unique Learning Needs of Students With Disabilities and Limited English Proficient Students (0 or 1 Point)

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Reader's Score: 1

4. Competitive Preference 8: Innovations That Serve Schools in Rural LEAs (0, 1, or 2 Points)
We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to focus on the unique challenges of high-need students in schools within a rural LEA (as defined in this notice) and address the particular challenges faced by students in these schools. To meet this priority, applications must include practices, strategies, or programs that are designed to improve student achievement or student growth, close achievement gaps, decrease dropout rates, increase high school graduation rates, or improve teacher and principal effectiveness in one or more rural LEAs.

**Strengths**

| Not addressed in proposal. |

**Weaknesses**

| |

**Reader's Score:** 0

**Status:** Submitted

**Last Updated:** 06/26/2010 7:38 AM
### Technical Review Coversheet

**Applicant:** Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396C100434)

**Reader #3:**

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#### Summary Statement

1. Summary Statement

#### Selection Criteria

1. A. Need for the Project and Quality of the Project Design (up to 25 Points)

2. C. Experience of the Eligible Applicant (up to 25 Points)

3. E. Strategy and Capacity to Further Develop and Bring to Scale (up to 5 Points)

4. F. Sustainability (up to 10 Points)

5. G. Quality of the Management Plan and Personnel (up to 10 Points)

#### Competitive Preference

1. Competitive Preference 5: Innovations for Improving Early Learning Outcomes (0 or 1 Point)

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4. Competitive Preference 8: Innovations That Serve Schools in Rural LEAs (0, 1, or 2 Points)
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Development 15: 84.396C
Reader #3:
Applicant: Exploratorium -- Institute for Inquiry, (U396C100434)

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Strengths

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<tr>
<td>Providing tools for teachers to more effectively teach their students (in this case ELL students) is a valid need. The work plan for the project is feasible and timely. Interviews, focus groups, surveys, quantitative achievement data, and observations provide a wide variety of evaluation instruments to make the results of this grant research more reliable.</td>
</tr>
</tbody>
</table>

Weaknesses
Research is not a negative developmental component, but some of the questions the applicant seeks to answer through research should be evident already to support a proposal such as this one. The applicant should clarify how teachers will be chosen to participate in professional development in the first year and in cohorts for years 2-5.

Reader's Score: 21

2. C. Experience of the Eligible Applicant (up to 25 Points)

In determining the experience of the eligible applicant, the Secretary considers the following factors:

(1) The past performance of the eligible applicant in implementing projects of the size and scope proposed by the eligible applicant.

(2) The extent to which an eligible applicant provides information and data demonstrating that -

(a) In the case of an eligible applicant that is an LEA, the LEA has -

(i) Significantly closed the achievement gaps between groups of students described in section 1111(b)(2) of the ESEA, or significantly increased student achievement for all groups of students described in such section; and

(ii) Made significant improvements in other areas, such as graduation rates or increased recruitment and placement of high-quality teachers and principals, as demonstrated with meaningful data; or

(b) In the case of an eligible applicant that includes a nonprofit organization, the nonprofit organization has significantly improved student achievement, attainment, or retention through its record of work with an LEA or schools.

Strengths

The mission and everyday activities of the Exploratorium support the goals and objectives of this grant. The Exploratorium has the tools and staff to provide the professional development needed to fulfill the work plan of this proposed project. In addition, the Exploratorium has experience creating and implementing school curriculum for elementary science students and teachers. The work of the Exploratorium has led to increased student achievement.

Weaknesses
The application does not address the experience of the school district applying alongside the Exploratorium for this grant.

Reader's Score: 20

3. E. Strategy and Capacity to Further Develop and Bring to Scale (up to 5 Points)

In determining the quality of the strategy and capacity to further develop and bring to scale the proposed project, the Secretary considers:

(1) The number of students proposed to be reached by the proposed project, and the capacity of the eligible applicant and any other partners to reach the proposed number of students during the course of the grant period.

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(3) The feasibility of the proposed project to be replicated successfully, if positive results are obtained, in a variety of settings and with a variety of student populations. Evidence of this ability includes the availability of resources and expertise required for implementing the project with fidelity, and the proposed project's evidence of relative ease of use or user satisfaction.

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(5) The mechanisms the eligible applicant will use to broadly disseminate information on its project so as to support further development or replication.

Strengths

BaySci has agreed to provide the materials and professional development opportunities to teachers on a national scale upon completion of this project. The project can be replicated in a more general sense to provide strategies that teachers in all districts could benefit from. Project results will be disseminated through virtual workshops, publications and presentations to share data and strategies.

Weaknesses
No significant weakness.

Reader's Score: 5

4. F. Sustainability (up to 10 Points)

In determining the adequacy of resources for the proposed project, the Secretary considers the following factors:

(1) The extent to which the eligible applicant demonstrates that it has the resources, as well as the support from stakeholders (e.g., State educational agencies, teachers' unions) to operate the project beyond the length of the Development grant.

(2) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the eligible applicant and any other partners at the end of the Development grant.

Strengths

The school district and Exploratorium have participated in a pilot study that yielded promising results. The production of a guidebook for teachers and study groups for each grade level will increase the likelihood of participation by teachers and implementations of the strategies taught during professional development workshops. The program has a strong buy-in from teachers and administration in the district, and a position will be created to continue implementation and support for the program after the grant period has ended.

Weaknesses

Nothing is mentioned about how teachers from schools other than El Verano feel about this program.

Reader's Score: 9

5. G. Quality of the Management Plan and Personnel (up to 10 Points)

In determining the quality of the management plan and personnel for the proposed project, the Secretary considers:

(1) 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.

(2) The qualifications, including relevant training and experience, of the project director and key project personnel, especially in managing projects of the size and scope of the proposed project.
Strengths

Strong background in curriculum, nationally funded projects, oversight of projects, and science content knowledge. Strong management team overall. New funds will be sought to cover remaining needed funds once grant period is completed.

Weaknesses

No responsibility allotted for specific team members for each individual task in the timeline. Budget is too high for the number of teachers being served.

Reader's Score: 8

Competitive Preference

1. Competitive Preference 5: Innovations for Improving Early Learning Outcomes (0 or 1 Point)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to improve educational outcomes for high-need students who are young children (birth through 3rd grade) by enhancing the quality of early learning programs. To meet this priority, applications must focus on:

(a) improving young children’s school readiness (including social, emotional, and cognitive readiness) so that children are prepared for success in core academic subjects (as defined in section 9101(11) of the ESEA);
(b) improving developmental milestones and standards and aligning them with appropriate outcome measures; and
(c) improving alignment, collaboration, and transitions between early learning programs that serve children from birth to age three, in preschools, and in kindergarten through third grade.

Strengths

Not identified or addressed within the proposal.

Weaknesses

Not identified or addressed within the proposal.

Reader's Score: 0

2. Competitive Preference 6: Innovations That Support College Access and Success (0 or 1 Point)
We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to enable kindergarten through grade 12 (K-12) students, particularly high school students, to successfully prepare for, enter, and graduate from a two- or four-year college. To meet this priority, applications must include practices, strategies, or programs for K-12 students that

(a) address students’ preparedness and expectations related to college;
(b) help students understand issues of college affordability and the financial aid and college application processes; and
(c) provide support to students from peers and knowledgeable adults.

**Strengths**

Not identified or addressed within the proposal.

**Weaknesses**

Not identified or addressed within the proposal.

**Reader's Score: 0**

3. Competitive Preference 7: Innovations To Address the Unique Learning Needs of Students With Disabilities and Limited English Proficient Students (0 or 1 Point)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to address the unique learning needs of students with disabilities, including those who are assessed based on alternate academic achievement standards, or the linguistic and academic needs of limited English proficient students. To meet this priority, applications must provide for the implementation of particular practices, strategies, or programs that are designed to improve academic outcomes, close achievement gaps, and increase college- and career-readiness, including increasing high school graduation rates (as defined in this notice), for students with disabilities or limited English proficient students.

**Strengths**

A large number of ELL students in the district indicates a need for this type of professional development.

**Weaknesses**

None

**Reader's Score: 1**
4. Competitive Preference 8: Innovations That Serve Schools in Rural LEAs (0, 1, or 2 Points)

We give competitive preference to applications for projects that would implement innovative practices, strategies, or programs that are designed to focus on the unique challenges of high-need students in schools within a rural LEA (as defined in this notice) and address the particular challenges faced by students in these schools. To meet this priority, applications must include practices, strategies, or programs that are designed to improve student achievement or student growth, close achievement gaps, decrease dropout rates, increase high school graduation rates, or improve teacher and principal effectiveness in one or more rural LEAs.

**Strengths**

Not identified or addressed within the proposal.

**Weaknesses**

Not identified or addressed within the proposal.

**Reader's Score:** 0

**Status:** Submitted

**Last Updated:** 06/25/2010 10:18 PM
Technical Review Coversheet

Applicant: Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396D100434)
Reader #1:

<table>
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<td>1. B. Strength of Research, Significance of Effect, and Magnitude of Effect (up to 10 Points)</td>
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<td>10</td>
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<tr>
<td>2. D. Quality of the Project Evaluation (up to 15 Points)</td>
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SUB TOTAL 25 25
TOTAL 25 25

Technical Review Form

Development Tier 2 Panel 06: 84.396D
Reader #1:
Applicant: Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396D100434)

1. B. Strength of Research, Significance of Effect, and Magnitude of Effect (up to 10 Points)

The Secretary considers the strength of the existing research evidence, including reported practice, theoretical considerations, and the significance and magnitude of any effects reported in prior research, on whether the proposed project will improve student achievement or student growth, close achievement gaps, decrease dropout
rates, increase high school graduation rates, or increase college enrollment and completion rates. Eligible applicants may also demonstrate success through an intermediate variable that is strongly correlated with improving these outcomes, such as teacher or principal effectiveness.

In determining the strength of the existing research evidence, the Secretary considers the following factors:

(1) The extent to which the eligible applicant demonstrates that there are research-based findings or reasonable hypotheses that support the proposed project, including related research in education and other sectors.

(2) The extent to which the proposed project has been attempted previously, albeit on a limited scale or in a limited setting, with promising results that suggest that more formal and systematic study is warranted.

(3) The extent to which the eligible applicant demonstrates that, if funded, the proposed project likely will have a positive impact, as measured by the importance or magnitude of the effect, on improving student achievement or student growth, closing achievement gaps, decreasing dropout rates, increasing high school graduation rates, or increasing college enrollment and completion rates.

Strengths

Through the studies cited on pp. 9-11, the applicant demonstrates the hypotheses that support the proposed project.

The proposed intervention has been piloted for two years and the applicant provides details of the study and outcomes on p. 12, 13, and 15 of the proposal. These promising results suggest that a more formal and systematic study is warranted.

The outcomes of the pilot study demonstrate that the proposed project likely will have a positive impact on student achievement, particularly for those students whose home language is not English.

Weaknesses

The proposal does not contain any weaknesses in Section B.

Reader's Score: 10

2. D. Quality of the Project Evaluation (up to 15 Points)

In determining the quality of the evaluation, the Secretary considers the following factors.
(1) The extent to which the methods of evaluation are appropriate to the size and scope of the proposed project.

(2) The extent to which the methods of evaluation will provide high-quality implementation data and performance feedback, and permit periodic assessment of progress toward achieving intended outcomes.

(3) The extent to which the evaluation will provide sufficient information about the key elements and approach of the project to facilitate further development, replication, or testing in other settings.

(4) The extent to which the proposed project plan includes sufficient resources to carry out the project evaluation effectively.

Strengths

The proposed project will use a quasi-experimental, pre- and post-intervention comparison design (p. 16). The sample of teachers will be purposefully selected, with the control group serving as the treatment group the following year (interrupted time-series design)(p. 17). The study will collect baseline data and analyze the quantitative results using ANOVA and HLM. All of these elements are appropriate for the proposed project.

The data sources listed on p. 17-18 will provide high-quality implementation and performance feedback data, as well as permit periodic assessment of progress toward achieving the intended outcomes.

The teacher surveys, focus groups, and classroom observations (p. 18) will provide sufficient information about the key elements necessary to facilitate the project.

The evaluators for the project include staff from Inverness Research and the Center for Research, Evaluation, and Assessment (p. 24). Their respective CVs demonstrate their evaluation experience.

Weaknesses

Section D does not contain any weaknesses.

Reader's Score: 15
Technical Review Coversheet

Applicant: Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396D100434)

Reader #2:

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Technical Review Form

Development Tier 2 Panel 06: 84.396D  
Reader #2:  
Applicant: Exploratorium -- Institute for Inquiry, - Institute for Inquiry, (U396D100434)

1. B. Strength of Research, Significance of Effect, and Magnitude of Effect (up to 10 Points)

The Secretary considers the strength of the existing research evidence, including reported practice, theoretical considerations, and the significance and magnitude of any effects reported in prior research, on whether the proposed project will improve student achievement or student growth, close achievement gaps, decrease dropout
rates, increase high school graduation rates, or increase college enrollment and completion rates. Eligible applicants may also demonstrate success through an intermediate variable that is strongly correlated with improving these outcomes, such as teacher or principal effectiveness.

In determining the strength of the existing research evidence, the Secretary considers the following factors:

(1) The extent to which the eligible applicant demonstrates that there are research-based findings or reasonable hypotheses that support the proposed project, including related research in education and other sectors.

(2) The extent to which the proposed project has been attempted previously, albeit on a limited scale or in a limited setting, with promising results that suggest that more formal and systematic study is warranted.

(3) The extent to which the eligible applicant demonstrates that, if funded, the proposed project likely will have a positive impact, as measured by the importance or magnitude of the effect, on improving student achievement or student growth, closing achievement gaps, decreasing dropout rates, increasing high school graduation rates, or increasing college enrollment and completion rates.

**Strengths**

On p. 8-10, the applicant thoroughly describes research-based findings in support of the proposed project, along with a hypothesis. The applicant presents the results of a pilot study implementing the proposed intervention with promising results in English learning as well as science on p. 11-12. The applicant demonstrates through their summary of existing research and the pilot study a great potential for positive impact on improving the achievement of ELL students in English as well as in science.

**Weaknesses**

No weaknesses noted.

Reader’s Score: 10

2. D. Quality of the Project Evaluation (up to 15 Points)

In determining the quality of the evaluation, the Secretary considers the following factors.

(1) The extent to which the methods of evaluation are appropriate to the size and scope of the proposed project.
(2) The extent to which the methods of evaluation will provide high-quality implementation data and performance feedback, and permit periodic assessment of progress toward achieving intended outcomes.

(3) The extent to which the evaluation will provide sufficient information about the key elements and approach of the project to facilitate further development, replication, or testing in other settings.

(4) The extent to which the proposed project plan includes sufficient resources to carry out the project evaluation effectively.

**Strengths**

The quasi-experimental design proposed on p.15-16 is appropriate for the proposed study. The research questions are well thought out, including a question on short- and long-term costs of the model (p. 15). Table on p. 16-17 lays out the outcome measures and data collection associated with them. Multiple aspects of data analyses are addressed, including taking care of nested student data within classrooms. Periodic assessment and performance feedback, including teacher data and logic model evaluation, are described in detail in Appendix H. Reporting with sufficient detail for replication is described on p. 18. Appropriately allocated resources for evaluation are addressed in the budget section.

**Weaknesses**

No weaknesses noted.

Reader's Score: 15

Status: Submitted
Last Updated: 07/23/2010 3:15 PM