

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

Status: Submitted

Last Updated: 09/16/2015 06:08 PM

Technical Review Coversheet

Applicant: Desoto Independent School District (U411C150127)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	35	0
Quality of the Project Design and Management Plan		
1. Project Design/Mgmt. Plan	45	0
Quality of the Project Evaluation		
1. Project Evaluation	20	18
Sub Total	100	18
Total	100	18

Technical Review Form

Panel #4 - i3 Development Panel - 4: 84.411C

Reader #1: *****

Applicant: Desoto Independent School District (U411C150127)

Questions

Selection Criteria - Significance

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

(1) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

(2) The national significance of the proposed project.

(3) The potential replicability of the proposed project or strategies, including, as appropriate, the potential for implementation in a variety of settings.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Project Design and Management Plan

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

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

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

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

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

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation to be conducted, the Secretary considers the following factors:

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the methods of evaluation will, if well-implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse Evidence Standards with reservations.

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

Strengths:

The project evaluation plan will be conducted by an external evaluator at 9.5 percent of the total project cost (\$75,000) according to the budget narrative and on page 25. This indicates that the proposed project plan includes sufficient resources to carry out the project evaluation effectively.

The research questions are clearly stated on pages 22 and 23. In addition, the research questions are restated on Table 4 (page 22) with the frequency of evaluation, data sources and study methods along with the objectives that they align to. According to this information, the key questions to be addressed by the project evaluation are clear and the methods for how each question will be addressed are appropriate.

A multiple-cohort quasi-experimental design using a randomized control trial will be used to analyze the data. The treatment group will consist of 300 randomly selected students and the control group will consist of 200 students that will be matched based on key background and demographic variables as indicated on pages 23 and 24. The methods of evaluation (i.e.: t-tests, analysis of variance, regression, chi-squared tests mentioned on page 24) will ensure that the methods of evaluation will produce valid and generalizable evidence about the project's effectiveness that would meet the What Works Clearinghouse Evidence Standards with reservations.

The analyses will be used to inform the project on a continuous basis (page 24).

Weaknesses:

The study plans to use qualitative data obtained from surveys, focus groups and observations mentioned on page 23. However, the project evaluation plan does not indicate if these protocols will be piloted to ensure validity or if the project will be using protocols that have already been implemented. Without this information, it is unclear if the data and analyses done using these protocols will yield statistically significant results.

Reader's Score: 18

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Technical Review Coversheet

Applicant: Desoto Independent School District (U411C150127)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	35	0
Quality of the Project Design and Management Plan		
1. Project Design/Mgmt. Plan	45	0
Quality of the Project Evaluation		
1. Project Evaluation	20	19
Sub Total	100	19
Total	100	19

Technical Review Form

Panel #4 - i3 Development Panel - 4: 84.411C

Reader #2: *****

Applicant: Desoto Independent School District (U411C150127)

Questions

Selection Criteria - Significance

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

(1) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

(2) The national significance of the proposed project.

(3) The potential replicability of the proposed project or strategies, including, as appropriate, the potential for implementation in a variety of settings.

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

Selection Criteria - Quality of the Project Design and Management Plan

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

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

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

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

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

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation to be conducted, the Secretary considers the following factors:

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the methods of evaluation will, if well-implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse Evidence Standards with reservations.

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

Strengths:

Overall, the evaluation plan is well-developed, indicating that the analyses will accurately reflect the program impact on students.

- The proposal clearly identifies several key questions (pg. 22) which are relevant to the project and, if answered, are likely to accurately reflect both the fidelity of the project and effect the proposed project has on students. The proposal is also directly linked to the Logic Model (Appendix).
- Both formative and summative evaluations are described (pgs. 22-23). These meet the What Works Clearinghouse Standards with reservations. Description is given on how a comparison group will be selected (pgs. 23-24).
- Measures that will be used in the evaluation are listed, and the results of these measures will allow for the program's effects to be measured (pg. 22).
- The proposal identifies an outside evaluator with sufficient experience, mentions project staff that will be responsible for liaison with the evaluator, and sufficient funds are put aside for the evaluation (pg. 17 & Budget Narrative).

Weaknesses:

- The evaluation would be strengthened by information addressing how attrition will be handled and a calculation of power/effect size.

Reader's Score: 19

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Technical Review Coversheet

Applicant: Desoto Independent School District (U411C150127)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	35	34
Quality of the Project Design and Management Plan		
1. Project Design/Mgmt. Plan	45	44
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Sub Total	100	78
Total	100	78

Technical Review Form

Panel #4 - i3 Development Panel - 4: 84.411C

Reader #3: *****

Applicant: Desoto Independent School District (U411C150127)

Questions

Selection Criteria - Significance

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

(1) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

(2) The national significance of the proposed project.

(3) The potential replicability of the proposed project or strategies, including, as appropriate, the potential for implementation in a variety of settings.

Strengths:

1) On pages 1-3 the proposed project explains the development of new strategies. They explain the integration of art to explore deeper understanding with problem based learning integrated to STEM using the multiple intelligence theories as the fundamental base of the project.

2) The significance is well documented with theories from experts in the subject (page 4). They mention that there is an achievement gap in math between impoverished versus high economic status students. On pages 4-5, the applicant cites evidence about the development of students using arts integrated in the curriculum.

3) The methods of replicability of the proposed project are adequate because the strategies they will use are clearly explained on pages 6-8 where they mention the links between arts and science, the inclusion of assessments, instructional components, and professional development. These components will give cohesion to the activities developed for student achievement and will also increase their learning.

Weaknesses:

1) The proposed project explains on page six the methods to replicate the project, but they need more explanation on what defines a magnet school and what will be its impact to the student. They don't mention if this magnet school will have any after school activities; it concentrates only on in-class activities.

Reader's Score: 34

Selection Criteria - Quality of the Project Design and Management Plan

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

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

(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and

within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

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

Strengths:

- 1) The goals, objectives and outcomes are clearly specified and measurable using percent of performance as baseline. (pp. 8-9)
- 2) The management plan is clear and well defined. The applicant establishes that the project will be inside the Division of Curriculum and Instruction and that they have experience in the administration of other grants. They explain the responsibilities, timelines, and milestones for accomplishing project tasks on pages 16-17 and year by year starting on page 31 under the budget narrative.
- 3) The procedures to ensure feedback and continuous improvement are adequate. The applicant will use a variety of methods to ensure the effective feedback. By working with staff on daily basis, meeting campus teachers and other personnel and establishing a committee that meets using digital management software and other strategies, they will ensure the feedback of the project. They will use an external evaluator.
- 4) For project dissemination they will use a web page to publish data and information, they also will engage local, regional and national conference attendees by discussing their project at these venues.

Weaknesses:

- 1) As part of the budget the applicant includes all the partners they will have with matching funds but there's little explanation on the role of these partners in the quality of the project section. They need to elaborate on the tasks they will perform.

Reader's Score: 44

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation to be conducted, the Secretary considers the following factors:

- (1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.**
- (2) The extent to which the methods of evaluation will, if well-implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse Evidence Standards with reservations.**
- (3) The extent to which the proposed project plan includes sufficient resources to carry out the project evaluation effectively.**

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: **0**

Status: Submitted

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Status: Submitted

Last Updated: 09/20/2015 09:23 AM

Technical Review Coversheet

Applicant: Desoto Independent School District (U411C150127)

Reader #4: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	35	29
Quality of the Project Design and Management Plan		
1. Project Design/Mgmt. Plan	45	34
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Sub Total	100	63
Total	100	63

Technical Review Form

Panel #4 - i3 Development Panel - 4: 84.411C

Reader #4: *****

Applicant: Desoto Independent School District (U411C150127)

Questions

Selection Criteria - Significance

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

(1) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

(2) The national significance of the proposed project.

(3) The potential replicability of the proposed project or strategies, including, as appropriate, the potential for implementation in a variety of settings.

Strengths:

This project builds off a successful implementation of iSTEAM3D — an intervention designed to incorporate project/problem based learning and the arts with STEM curricula (pp. 1). Because of their previous success, the project team has shown evidence of the project's potential significance if scaled up to include both elementary and high school students (pp. 2-4). Students will likely benefit from increased engagement and achievement in STEM. The plan to reach a total of 1,800 students indicates that a large number of low-income, minority students will receive valuable support and encouragement, both academic and social/emotional, critical for STEM career formation (pp. 1).

Weaknesses:

Regrettably, the narrative describes an intervention primarily focused on in-school learning (pp. 9-10), which fails to meet the requirements of the i3 grant Absolute Priority #2: "expanding high-quality out-of-school and extended-day activities." This aspect of the project severely limits its potential for national significance with regard to out-of-school time. Furthermore, while a viable plan has been proposed with regard to replicability of the project at schools within the Desoto Independent School District, no attention has been given to replicability of the project in districts outside of the one included in the scope of the grant (pp. 8).

Reader's Score: 29

Selection Criteria - Quality of the Project Design and Management Plan

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

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

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

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

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

Strengths:

The narrative presents the integration of STEM and the arts supported by more than the typical professional development offered to teachers (pp. 1-2). The project team plans to incorporate the participation of administrators, including principals, which further enhances the potential success of the project (pp. 12-13). Principals can set the culture of a school and have tremendous influence on teacher and student performance. Moreover, the listed partners providing professional development to these groups of individuals have shown their support and are well recognized for their reputation in STEM education (see Letters of Support). The professional development will be enhanced through the creation of a steering committee, which will include teachers and principals, and a professional learning community (pp. 15 -16). These components contribute to the extent that the project will achieve its specified and measurable goals, objectives and outcomes. A significant amount of attention has been given to the well thought-out feedback plan, which includes review of evaluation results, steering committee meetings, and daily monitoring to name a few of its components (p. 17). This should ensure that the proposed project will have the infrastructure required for improvements to be made.

Weaknesses:

A lot of detail pertinent to the management plan of the project does not exist in the narrative, including a lack of clearly defined responsibilities. For example, it is unclear which teachers will participate from the elementary and high school (e. g., all teachers, science teachers, math teachers, a subsection of STEM teachers, English teachers) (pp. 11-12). Despite the strong emphasis on integration between the arts, project based learning, and STEM, no sample lesson plan or specific components of potential lesson plans have been provided (pp. 6-7). This is surprising, considering that the proposal builds off of an existing program. Furthermore, the narrative mentions the implementation of a variety of components for which almost no specifics are offered (i.e., summer bridge program, internships, job shadowing, education trips, camps, digital portfolios) (p. 14). Finally, the proposal's dissemination plan lacks a list of specific venues and conferences where results of the project evaluation will be reported. Furthermore, it lacks justification of the broad category of dissemination outlets included in the plan (pp. 20-21).

Reader's Score: 34

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation to be conducted, the Secretary considers the following factors:

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the methods of evaluation will, if well-implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse Evidence Standards with reservations.

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

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Status: Submitted

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Status: Submitted

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Technical Review Coversheet

Applicant: Desoto Independent School District (U411C150127)

Reader #5: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	35	33
Quality of the Project Design and Management Plan		
1. Project Design/Mgmt. Plan	45	34
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Sub Total	100	67
Total	100	67

Technical Review Form

Panel #4 - i3 Development Panel - 4: 84.411C

Reader #5: *****

Applicant: Desoto Independent School District (U411C150127)

Questions

Selection Criteria - Significance

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

(1) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

(2) The national significance of the proposed project.

(3) The potential replicability of the proposed project or strategies, including, as appropriate, the potential for implementation in a variety of settings.

Strengths:

1. The proposed project will scale up the district's successful iSTEAM3D middle school project, expanding it to serve all grades, K-12. Data is provided to demonstrate the success of the current project. The project will create iSTEAM3D magnet academies to "integrate Arts disciplines and project- and problem- based strategies in STEM" (p.6). The national significance of the proposal is well-documented. "It is more about fundamentally changing education to incorporate the experimentation, exploration, and discovery that is at the heart of effective STEM education." (p. 1)
2. Proposal leverages and expands existing successful partnerships.
3. A randomized lottery process will be used to ensure a cross-section of learners, making the results applicable to a large cross-section of school districts.

Weaknesses:

Proposal relies heavily on existing program and does not substantially demonstrate new strategies.

Reader's Score: 33

Selection Criteria - Quality of the Project Design and Management Plan

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

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

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

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

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

Strengths:

1. Goals, objectives, and outcomes are clearly defined, measurable, and reasonable. (pp. 8-9)
2. Feedback and continuous improvement are addressed through professional learning communities and common planning time as participating teachers and educators receive both professional development and ongoing technical assistance. (p. 12)
3. Management plan clearly indicates duties of project director, Instructional Coaches and Master Teachers. (pp. 17-18)

Weaknesses:

1. Proposal states that "training for administrators will include (but not limited to): 1) use of data as an effective framework for designing and implementing iSTEAM3D; and 2) engagement of students and their parents through institutional supports and resources designed to personalize education to improve achievement of students in STEM." (pp 12 -13) yet the management plan does not provide details as to how this will be provided and/or who will provide this training nor are funds appropriated for training for administrators.
2. This proposal provides "Extra help before, during and after-school" (page 14) yet this is not included in the budget nor are details provided as to who will provide this extra support.
3. "Student-led Conferences (SLC) starting at the elementary level through high school" (page 14) are included yet there is no training provided for teachers or parents participating in these conferences. The timing of these conferences is also unclear.
4. Proposal references a summer bridge program but does not provide details.
5. Details of dissemination plan are missing.

Reader's Score: 34

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation to be conducted, the Secretary considers the following factors:

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) The extent to which the methods of evaluation will, if well-implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse Evidence Standards with reservations.

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

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Status: Submitted
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