

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

Status: Submitted

Last Updated: 09/20/2016 08:37 PM

## Technical Review Coversheet

**Applicant:** Virginia Advanced Study Strategies, Inc. (U411C160023)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	35	32
<b>Quality of the Project Design and Management Plan</b>		
1. Project Design/Mgmt. Plan	45	40
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	20	0
<b>Total</b>	100	72

# Technical Review Form

Panel #10 - i3 Development - 10: 84.411C

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

Applicant: Virginia Advanced Study Strategies, Inc. (U411C160023)

## Questions

### Selection Criteria - Significance

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

(1) The magnitude or severity of the problem to be addressed by the proposed project.

(2) 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.

(3) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

### Strengths:

(1) The proposal addresses a problem of national significance, i.e., the lack of emphasis in mainstream education on “non-content competencies important to success in school and career” (p. 2). In particular, the proposal focuses on academic self-efficacy and mindset. Further, the applicant argues that this need is especially critical in rural communities and cites research to support the implementation of programs and strategies intended to support the development of the targeted skills (p.3).

(2) The proposed project is supported by strong theory and builds on a “recent study of three Virginia (VA) school districts that found that providing teachers with online anchor lesson plans and other supports increased students’ math achievement” (p.5). The applicants demonstrate that this intervention is scalable (p. 6). The proposed project promises to make a large impact throughout VA, involving 20 LEAs in a network that supports “innovation-minded math teachers to create SEL (social emotional learning) lesson plans for instruction in algebra. The concept of a network is described and supported by research (p.5-6).

(3) The project addresses priority #4 by targeting academic self-efficacy and mindset as skills thought to support academic achievement. The project also addresses priority #5 by targeting a rural population of LEAs in VA, specifically those that meet requirements for federal low income schools program (p.8).

### Weaknesses:

Although the proposal cites research from a study of three VA schools (p.5), it is unclear whether or not these schools are among the targeted population, and if not, how similar they are to the target population. There is little information/research provided about the particular needs of rural schools.

The demographics of the 20 targeted LEAs are provided in Table 2 in the Appendix, but there are no data supporting the need for strengthening math lessons by incorporating SEL in this particular rural population.

Reader's Score: 32

### 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 project goals, objectives, and outcomes are clearly specified. The goal (to develop a process for using the network as a means of supporting teachers in high need rural schools, p.8) is appropriate for an innovative project that is built on strong theory. Two specific SEL factors, academic self-efficacy and growth mindset are targeted and defined, using citations from Bandura and Dweck, who originated the constructs (p. 8). Five specific measurable objectives are outlined on page 9.
- (2) The management plan includes a logic model of how the project follows a strong theory to achieve its intended outcomes (p. 9-10). A Table presented on pages 12-14 includes major tasks, responsible parties, and a yearly timeline, with each year subdivided into quarters. The table is categorized under the objectives. The proposal considers needed resources, such as the purchase of equipment and contracted experts to develop videos for teacher training, which will facilitate sustainability and scaleup. The budget includes training stipends for teachers and outside evaluators.
- (3) The management plan (Table 1) includes procedures for reviewing progress, including quick turnaround of evaluators' reports (p.19). Fidelity measures, use of evaluation reports, and a broad base of input help to ensure feedback and continuous improvement.
- (4) Dissemination is incorporated into objective #5, intended to support sustainability and scalability through using four schools as model innovation sites (p.19). Other means of dissemination include the project website, webinars, and publications (p.20).

**Weaknesses:**

Although the use of video conferencing and online platforms may facilitate teacher training and meetings in rural settings, more face-to-face meetings (p.18), may be necessary both for evaluation meetings and for monitoring implementation (e.g., observing teachers' lessons).

Although the budget includes some funding for project staff to travel to rural sites, more travel than anticipated may be necessary to accomplish face-to-face meetings (p.18) and/or more project staff based at the rural sites.

**Reader's Score: 40**

**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**

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**Status:**           Submitted

**Last Updated:**   09/20/2016 08:37 PM

Status: Submitted

Last Updated: 09/22/2016 10:41 PM

## Technical Review Coversheet

**Applicant:** Virginia Advanced Study Strategies, Inc. (U411C160023)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	35	32
<b>Quality of the Project Design and Management Plan</b>		
1. Project Design/Mgmt. Plan	45	40
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	20	0
<b>Total</b>	100	72

# Technical Review Form

Panel #10 - i3 Development - 10: 84.411C

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

Applicant: Virginia Advanced Study Strategies, Inc. (U411C160023)

## Questions

### Selection Criteria - Significance

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

(1) The magnitude or severity of the problem to be addressed by the proposed project.

(2) 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.

(3) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

### Strengths:

The pilot work that demonstrated minority students improved their grades in math, science and English by 340% provided evidence of promising strategies (p2).

Research providing evidence that systemic issues tend to disadvantage African American males was compelling and further raises concern over performance in rural settings (p.3 paragraph #2)

The inclusion of strategies to foster social-emotional learning (SEL) development within existing curriculum provides evidence of sustainable and systemic change (p.4).

The cost benefit analysis provided on p.5 was, if not compelling, at least worthy of deep and serious consideration. It also suggested that the peer-teacher approach is likely a cost-effective strategy to expand the program.

### Weaknesses:

The use of research centered on India and Turkey to challenge the similarity of rural/urban students in the US was unusual. Additionally, the text cited ERIC search results which is not frequently accepted as the home to strongly vetted and/or seminal research (p.3). The proposal would be strengthened by citing works from more widely accepted sources with greater similarity to your project location. This section does not leave the reviewer with confidence that the constructs have been thoroughly researched.

Reader's Score: 32

### 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:**

Anticipated outcomes are identified within the logic model (ie, figure 1) on page 10. The management plan (table 1 on page 12) provides clear objectives, timelines and milestones that are to be achieved as the project is implemented. This level of planning provides confidence that a funded project would be carried out with fidelity.

Pages 15-16 provided specific information concerning the varied approaches to reaching and supporting teachers in this effort (ie, face to face, LEA's, distance, and summer institutes). This level of planned support was evidence of strong planning.

Dissemination/Continuous - A plan for ensuring continuous feedback (p.18) and to disseminate information (P.19) was provided. These details provide confidence that all aspects of the program have been considered and are likely to be carried out fully.

**Weaknesses:**

Planned interventions lacked specificity. For example, p9 states that teachers in the NIC will "innovate lesson plans with SEL strategies". It is difficult to find evidence that clear strategies have been identified and thus creates some concern as to consistent implementation.

**Reader's Score: 40**

**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

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**Status:** Submitted

**Last Updated:** 09/22/2016 10:41 PM

Status: Submitted

Last Updated: 09/20/2016 12:14 PM

## Technical Review Coversheet

**Applicant:** Virginia Advanced Study Strategies, Inc. (U411C160023)

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

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

# Technical Review Form

Panel #10 - i3 Development - 10: 84.411C

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

Applicant: Virginia Advanced Study Strategies, Inc. (U411C160023)

## Questions

### Selection Criteria - Significance

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

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) 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.
- (3) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

#### 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:**

The applicant comprehensively outlines a clear evaluation plan that will be conducted by an independent evaluation company ICF. The company has over 20 years of experience in education program evaluation. A mixed method quasi-experimental design will be used. Data will be collected such as teacher outcomes and student outcomes. In addition, the applicant proposes that the evaluation will include an implementation study to investigate fidelity and an impact study to determine the project's impact on student academic outcomes (p.21). In addition, the applicant proposes to conduct multi-variant statistical comparisons of project and student data at the end of each year to demonstrate impact (p. 26).

Evaluators will conduct multivariate statistical comparisons and has extensive experience with QED studies (Appendix F). For example, the evaluation lead has managed multi-year studies ranging from case studies to experimental design (p. 26). Strong evidence in resumes included, project timelines and management plan indicate that the proposed project plan includes sufficient resources to carry out the project evaluation effectively (Appendix F2).

**Weaknesses:**

The proposal indicates that the authors will match 40 comparison schools to the 40 treatment schools using propensity scores to ensure equivalence (pg. 25). Student-level analyses will be conducted (p. 26). This analytic approach described in the application is appropriate; however, it does not ensure baseline equivalence between the treatment and comparison students. This randomization does not meet What Works Clearinghouse Evidence Standards.

**Reader's Score: 19**

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**Status:** Submitted  
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Status: Submitted

Last Updated: 09/19/2016 04:31 PM

## Technical Review Coversheet

**Applicant:** Virginia Advanced Study Strategies, Inc. (U411C160023)

**Reader #4:** \*\*\*\*\*

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	35	0
<b>Quality of the Project Design and Management Plan</b>		
1. Project Design/Mgmt. Plan	45	0
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	20	17
<b>Total</b>	100	17

# Technical Review Form

Panel #10 - i3 Development - 10: 84.411C

Reader #4: \*\*\*\*\*

Applicant: Virginia Advanced Study Strategies, Inc. (U411C160023)

## Questions

### Selection Criteria - Significance

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

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) 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.
- (3) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

**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:**

The applicant provides nine specific research questions in Table 2 on page 22 that are clearly connected to the logic model on page 10. The first six questions directly address implementation of the Rural Math Innovation Network (RMIN) model by teachers and project staff. The proposal indicates that data will be collected via interviews and surveys and will be analyzed using descriptive statistics and qualitative analyses. The primary impact analyses will target student outcomes on a Social-Emotional Learning (SEL) survey and academic achievement as described in research questions seven and eight. The SEL surveys will use existing measures as described on page 24 that have been psychometrically evaluated and used in other studies, increasing the validity of the outcomes.

A power analysis was conducted using conservative parameter estimates for the proposed sample as described on page 25.

The proposal includes a quasi-experimental design with propensity score matching of schools (p. 21) for baseline equivalence at the cluster level. Analyses at the school level could meet WWC evidence standards with reservations as described.

The evaluation team appears to have the requisite experience and knowledge to successfully complete the project as designed. The external evaluation firm has prior i3 experience, and the lead evaluator appears to have enough experience to successfully complete the project.

**Weaknesses:**

On page 25, the proposal indicates that the authors will match 40 comparison schools (20 middle and 20 high) to the 40 treatment schools using propensity scores to ensure equivalence. Once schools are selected, the project staff will recruit two teachers in each school to serve as comparison classroom. To assess student-level impacts, two-level models with students nested in schools will be estimated (p. 26) indicating that the analyses will be conducted at the student level. This analytic approach is appropriate, but the approach does not ensure baseline equivalence between the treatment and comparison students. On page 16 of the WWC Handbook, it states that cluster design studies (such as this) cannot use a cluster level measure of equivalence (e.g., math achievement) to establish equivalence for individual-level analyses. Therefore, the study design does not ensure baseline equivalence at the student level and the study may not meet WWC evidence standards with reservations unless the propensity score matching was conducted at the student-level.

**Reader's Score:** 17

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**Status:** Submitted

**Last Updated:** 09/19/2016 04:31 PM



Status: Submitted

Last Updated: 09/20/2016 10:16 AM

## Technical Review Coversheet

**Applicant:** Virginia Advanced Study Strategies, Inc. (U411C160023)

**Reader #5:** \*\*\*\*\*

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	35	32
<b>Quality of the Project Design and Management Plan</b>		
1. Project Design/Mgmt. Plan	45	40
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	20	0
<b>Total</b>	100	72

# Technical Review Form

Panel #10 - i3 Development - 10: 84.411C

Reader #5: \*\*\*\*\*

Applicant: Virginia Advanced Study Strategies, Inc. (U411C160023)

## Questions

### Selection Criteria - Significance

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

(1) The magnitude or severity of the problem to be addressed by the proposed project.

(2) 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.

(3) The extent to which the proposed project addresses the absolute priority the applicant is seeking to meet.

### Strengths:

The severity of the lack of non-cognitive factors in rural setting was described on p. 3. An example was made that the test scores of African American students were lower because of their lack of self confidence in academics (p.3). The applicant also provided data indicating that perception in rural settings also play an important factor in increasing non-cognitive skills and academic achievement (p. 3). School demographics were provided in the appendix for the targeted population. The proposed project would build upon current program described on p. 6 to develop and implement SEL into mathematics assignments. The applicant described a project that would tie non-cognitive skills through the Social Emotional Learning into academic courses, such as Algebra I and Pre-Algebra in rural settings on p. 1 which addressed both absolute priority #4 and #5 to impact the non-cognitive factors such as engagement, belonging, and self-worth (p.5).

### Weaknesses:

While the applicant described in depth general research data on SEL programs and the research on at risk students (p. 2-4), it would have been helpful to describe the actual weaknesses in the schools that would be served by the proposed project. It was stated on p. 8 that the purpose of the project is to develop a process to be implemented. It is unclear of the actual strategies for the proposed project other than the applicant stating to develop SEL lessons to be included in math assignments that would in turn increase non cognitive factors.

The selection of the students or grades for the project was not evident. The actual activities to be implemented for the students were not described.

Reader's Score: 32

### 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 applicant provided five objectives with the major tasks for each in chart format on p. 12-14. Also in the chart was the timeline which defined the duties of the management team and activities or milestones for project. The logic model on p. 10 for the proposed project provided short term, immediate and long term outcomes to be accomplished. The experience of the personnel involved in the proposal was described on p. 20-21. Duties and responsibilities for the key personnel were described in depth in the budget narrative (appendix) and budget was in line with the project. The advisory leadership team would provide continuous feedback for the proposal either face to face or video conferencing (p. 18). The applicant stated that the project's results would be shared in a variety of methods, such as conferences, webinars, and journals (p. 20).

**Weaknesses:**

While the logic model on p. 10 had outcomes, the applicant listed that the only goal for the proposed project is to develop a process on p. 8. The applicant also stated that this process has yet to be developed and it is unclear how the outcomes would relate to a process that has yet to be developed. Outcomes for the proposed project did not provide specific measures (p. 10).

**Reader's Score: 40**

**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**

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**Status:**           Submitted

**Last Updated:**   09/20/2016 10:16 AM