



REQUEST FOR APPLICATIONS

ACCELERATING THE ACADEMIC ACHIEVEMENT OF STUDENTS WITH LEARNING DISABILITIES RESEARCH INITIATIVE

CFDA Number: 84.324D

<u>COMPETITION ROUND</u>	Letter of Intent Due Date	Application Package Available	Application Due Date
	https://iesreview.ed.gov/	http://www.grants.gov/	http://www.grants.gov/
SEPTEMBER	July 19, 2012	July 19, 2012	September 20, 2012

IES 2012

U.S. Department of Education

PART I GENERAL OVERVIEW	4
1. REQUEST FOR APPLICATIONS	4
2. PURPOSE	4
3. BACKGROUND	4
A. Overview of the Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative	6
PART II REQUIREMENTS OF THE PROPOSED RESEARCH	8
4. BASIC REQUIREMENTS	8
5. REQUIREMENTS FOR A3 CENTER APPLICATION	8
A. Significance	8
B. Research Plan	9
a. Development of a set of interventions	9
b. Evaluation of the efficacy of an intervention	10
c. Supplementary research (optional)	12
d. Timeline	12
C. Personnel	12
D. Management Plan	12
E. Resources	13
F. Awards	13
PART III GENERAL SUBMISSION AND REVIEW INFORMATION	14
6. MECHANISM OF SUPPORT	14
7. FUNDING AVAILABLE	14
8. ELIGIBLE APPLICANTS	14
9. COLLABORATION ACROSS A3 NETWORK	14
10. THE PRINCIPAL INVESTIGATOR	15
11. SPECIAL CONSIDERATIONS FOR INDIRECT COST RATES	16
12. DEMONSTRATING ACCESS TO DATA AND EDUCATION DELIVERY SETTINGS	16
13. PUBLIC AVAILABILITY OF RESULTS	17
14. SPECIAL CONDITIONS ON GRANTS AND COOPERATIVE AGREEMENTS	17
15. SUBMITTING A LETTER OF INTENT	17
A. Content	17
B. Format and Page Limitation	17
16. APPLICATION INSTRUCTIONS AND APPLICATION PACKAGE	17
A. Documents Needed to Prepare Applications	17
B. Date Application Package is Available on Grants.gov	18
C. How to Download the Correct Application Package	18
a. CFDA number	18
b. Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative Application Package	18
17. MANDATORY ELECTRONIC SUBMISSION OF APPLICATIONS AND DEADLINE	18
18. TECHNICAL ASSISTANCE FOR APPLICANTS	19
19. WRITING YOUR APPLICATION: CONTENT AND FORMATTING REQUIREMENTS	19
A. Overview	19
B. General Format Requirements	19
a. Page and margin specifications	19
b. Spacing	19
c. Type size (font size)	20
d. Graphs, diagrams, tables	20
C. Project Summary/Abstract	20
a. Submission	20
b. Page limitations and format requirements	20
c. Content	20
D. Project Narrative	21

a. Submission	21
b. Page limitations and format requirements	21
c. Format for citing references in text	21
d. Content	21
E. Appendix A (Optional)	21
a. Submission	21
b. Page limitations and format requirements	21
c. Content	21
F. Appendix B (Optional)	21
a. Submission	21
b. Page limitations and format requirements	22
c. Content	22
G. Appendix C (Optional)	22
a. Submission	22
b. Page limitations and format requirements	22
c. Content	22
H. Bibliography and References Cited	22
a. Submission	22
b. Page limitations and format requirements	22
c. Content	22
20. APPLICATION PROCESSING	22
21. PEER REVIEW PROCESS	23
22. REVIEW CRITERIA FOR SCIENTIFIC MERIT	23
A. Significance	23
B. Research Plan	23
C. Personnel	23
D. Management Plan	23
E. Resources	24
23. RECEIPT AND START DATE SCHEDULE	24
A. Letter of Intent Receipt Date	24
B. Application Deadline Date	24
C. Earliest Anticipated Start Date	24
D. Latest Possible Start Date	24
24. AWARD DECISIONS	24
25. INQUIRIES MAY BE SENT TO	24
26. PROGRAM AUTHORITY	24
27. APPLICABLE REGULATIONS	24
28. REFERENCES	25

PART I GENERAL OVERVIEW

1. REQUEST FOR APPLICATIONS

In this announcement, the Institute of Education Sciences (Institute) invites applications for research projects that will contribute to its Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative (A3 Initiative). For the FY 2013 competition, the Institute will consider only applications that meet the requirements outlined below under *Part II Requirements of the Proposed Research*.

Separate announcements are available on the Institute's web site that pertain to the other research and research training grant programs funded through the Institute's National Center for Special Education Research and to the discretionary grant competitions funded through the Institute's National Center for Education Research (<http://ies.ed.gov/funding>).

2. PURPOSE

The Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative (A3 Initiative) is intended to support research to develop and evaluate interventions (e.g., instructional approaches, curricula, technology) to accelerate the academic achievement of students with or at risk for learning disabilities in grades 3 through 8. The A3 Initiative will take a comprehensive approach to tackling the problem of improving the academic achievement, namely reading and mathematics achievement, of students with or at risk for learning disabilities. In addition, the Institute plans for the A3 Initiative to change the way in which research on the achievement of students with disabilities is conducted by creating a tightly linked network of researchers across a variety of disciplines who will work collaboratively to address the problem.

The work of the Institute is grounded in the principle that effective education research must address the interests and needs of education practitioners and policymakers, as well as students, parents and community members (see <http://ies.ed.gov/director/board/priorities.asp> for the Institute's priorities). To this end, the Institute encourages you to develop partnerships with stakeholder groups to advance the relevance of your work, the accessibility of your publications, and the usability of your findings for the day-to-day work of education practitioners and policymakers.

3. BACKGROUND

A. The Challenge

Over the last 10 to 15 years, strides have been made in the development of reading and mathematics instruction to improve student achievement, yet students with disabilities demonstrate a wide and persistent achievement gap compared to their peers without disabilities. The most recent National Assessment of Educational Progress (NAEP, 2011) data show that, in reading, the percentage of fourth grade students with disabilities scoring *below* Basic is 68%. For their peers without disabilities, the figure is 29%. The fourth grade mathematics data tell a similar story: 45% and 14%, respectively. The eighth grade data are no more encouraging. The below Basic percentages in reading are 62% and 20%, respectively; for mathematics 64% and 22%, respectively. It is important to keep in mind that scoring "*at* Basic" means only partial mastery of prerequisite knowledge and skills for a content area. Thus, scoring "*below* Basic" indicates serious knowledge and skill deficits.

Research syntheses generated by efforts such as the National Reading Panel and National Mathematics Advisory Panel (National Institute of Child Health and Human Development, 2000; National Mathematics Advisory Panel, 2008) articulated skills related to success in school and life and instructional techniques or strategies that had evidence for improving outcomes for typically developing students as well as students with or at risk for disabilities (e.g., intensive phonemic awareness and phonics instruction). Additionally, researchers have demonstrated that many early elementary school students who show low performance in academic areas could demonstrate positive growth when provided intensive instruction over a period of time (e.g., Bryant et al., 2011; O'Connor, Harty, & Fulmer, 2005; Vellutino et al., 1996).

Furthermore, the estimated 30-60% school failure rate in areas like reading (Snow, Burns, & Griffin, 1998) could be dramatically reduced with the use of intensive interventions.

Schools have therefore taken different approaches to intervening with students who struggle academically, with a variety of Response to Intervention (RTI) approaches being widely adopted based upon the research cited above. RTI is conceptualized as a multi-tiered (typically three-tiered) systems approach that encompasses general and special education, provides increasingly intensive levels of research-based instruction or intervention at each tier, and includes screening and frequent monitoring of student growth to determine whether students are progressing or require instructional modifications. Typically, primary prevention (Tier I) includes a core curriculum provided to all students in general education; secondary prevention (Tier II) addresses the needs of students who do not make adequate progress in Tier I by providing more intensive intervention, often in small-group, pull-out settings; and tertiary prevention (Tier III) targets students who require interventions that are more intensive than what is provided in secondary prevention. There is variation in implementation within and across secondary and tertiary prevention in both reading and mathematics instruction. This includes variation in setting, size of the instructional group, frequency of intervention, session length, program duration, instructional strategies, and content (e.g., Fuchs et al., 2008; Harn, Linan-Thompson, & Roberts, 2008). In general, tertiary prevention, compared to secondary prevention, includes smaller groups of students or individual instruction, longer intervention sessions, more instructional sessions, or more individualization of content based on students' specific needs. Research on RTI models in academic areas began primarily in beginning reading in elementary school and were then adapted to other areas, particularly mathematics (Gersten et al., 2009; Riccomini & Witzel, 2010), and to other grade levels.

Researchers have demonstrated that the proportion of students determined to be at high risk for disability or school failure decreases with more intensive interventions (e.g., O'Connor, Fulmer, Harty, & Bell, 2005; Simmons et al., 2008; Vellutino, Scanlon, Zhang, & Schatschneider, 2008) and that students who receive more intensive instruction, as a whole, show significant improvements compared to students who received instruction typically provided by their schools (e.g., Simmons et al., 2011). A number of students, however, show limited or no progress despite receiving secondary, tertiary, or both levels of more intensive instruction. Researchers have estimated that approximately 2 - 7% of students still show inadequate response to intensive instruction provided in the early grades (e.g., Mathes et al., 2005; McMaster, Fuchs, Fuchs, & Compton, 2005; Torgesen, 2000). Perhaps more concerning, Al Otaiba and Fuchs (2006) found that among students who had an Individualized Education Program (IEP), over 25% of them did not respond to intensive instruction. The investigators, based on their estimates and estimates from other research, suggested that the percentage of nonresponders among students with learning disabilities may be as high as 50%. Finally, disabilities in mathematics and disabilities in reading can co-occur, with about 20% of students with learning disabilities exhibiting deficits in both areas (Compton, Fuchs, Fuchs, Lambert, & Hamlett, 2012). Outcomes for students who exhibit disabilities in both areas are generally poorer than for students with a disability in only one area (e.g., Fuchs & Fuchs, 2002; Swanson, Jerman, & Zheng, 2009). Thus, there is need to develop a science of intensive instruction for students who have disabilities in reading, mathematics, or both, or are at high risk for being so identified. This need is more urgent for students in late elementary school and higher. By late elementary school, academic deficits and achievement gaps between students with disabilities and their peers have become well established, and the likelihood of accurately identifying students who need more intensive interventions (i.e., true positives) is improved (Fuchs, Fuchs, & Compton, 2010).

Tertiary, and in some cases secondary, interventions as currently conceptualized and implemented are clearly inadequate for meeting the academic needs of these students who have the most intractable learning problems. For example, there is growing evidence that the ways schools have often attempted to increase the instructional intensity incrementally through primary, secondary, and tertiary prevention, particularly for later grades, may not be the most efficient, effective, or appropriate approach for intervening with students who demonstrate intractable achievement problems (Fuchs et al., 2010; Vaughn et al., 2011). There exists a knowledge gap in what interventions should consist of for these

students with respect to content, delivery mechanisms, intensity and length of instruction, and setting (e.g., Wanzek & Vaughn, 2007). The development and rigorous evaluations of interventions based on systematic experimentation and analysis of content and intervention features (e.g., instructional strategies, frequency, duration) as well as implementation variables (e.g., grouping, setting) are required to build a science of intensive instruction to meet the academic needs of these students.

A. Overview of the Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative

Through the A3 Initiative, the Institute intends to establish an A3 Research and Development (R&D) Network that focuses on the development of reading and mathematics achievement of **students with or at risk for learning disabilities in grades 3 through 8**. The Institute anticipates funding a **maximum of three A3 Centers** as part of this Initiative. The Institute expects that each A3 Center will leverage expertise across a breadth of disciplines (e.g., reading and mathematics content knowledge, special education, developmental or cognitive psychology, research methodology) when forming a team of scientists. The collaborative efforts of the A3 R&D Network will be guided by a Leadership Team, which will be comprised of three members from the Institute and two members from each funded A3 Center.

The work of an A3 Center includes developing and testing interventions to improve **reading and mathematics outcomes** for students with the most intractable learning problems and who have learning disabilities or are at risk for learning disabilities. By intractable, the Institute means academic difficulties in reading, mathematics, or both areas as documented on students' IEPs or problems which persist despite exposure to evidence-based, large- or small-group instruction.

Each A3 Center will be comprised of a team of scientists who focus on:

- developing reading interventions,
- developing mathematics interventions, and
- evaluating the impact of interventions through efficacy trials.

You may also propose to conduct exploratory work that could influence intervention development. You may wish to explore malleable factors that are associated with education (student) outcomes or to explore factors and conditions that may mediate or moderate the relations between malleable factors and education outcomes (e.g., Raghobar et al., 2009). You may also wish to explore the underlying processes that may be operating to enhance or inhibit learning outcomes to the extent that such processes are malleable. This exploratory work will be considered supplementary to the focused program of research (i.e., developing and evaluating the impact of reading and mathematics interventions through efficacy trials) and should be justified in relation to the state of knowledge for the targeted domain.

In addition, each A3 Center will include school and district personnel who will contribute to the development of interventions that are ultimately feasible and practical for implementation within existing school structures.

The Institute intends for the A3 R&D Network as a group to cover reading and mathematics achievement from grades 3 through 8. Each A3 Center will address the academic achievement for a specific grade range that covers at least 3 years within the 3rd - 8th grade span. You must use the same grade range for your reading and mathematics interventions. For example, if you are interested in developing and evaluating an intervention targeting mathematics outcomes for students in 3rd - 5th grades, you must also develop and evaluate an intervention targeting reading outcomes for the same grade range. The Institute anticipates that there may be some overlap across A3 Centers with respect to grades covered (e.g., one A3 Center focuses on grades 4, 5, and 6, and another A3 Center focuses on grades 6, 7, and 8). In FY 2013, the Institute will not fund more than two applications that cover the exact same grade range. Funding at each grade span will depend on the receipt of meritorious applications and the availability of funds.

The A3 Initiative depends on the coordination of efforts across A3 Centers. The A3 Leadership Team will be instrumental in establishing a structure that will result in maximum collaboration and cooperation across A3 Centers in ways that lead to productive exchange of ideas, materials, and data. A3 Centers will be expected to share research findings with other members of the A3 R&D Network so as to inform the ongoing work of other A3 Centers. A3 Centers will also be expected to agree upon a common set of measures to be used in their development and efficacy studies.

PART II REQUIREMENTS OF THE PROPOSED RESEARCH

4. BASIC REQUIREMENTS

You must designate the grade range that will be covered by the application between grades 3 and 8, inclusive. The grade range must be for three consecutive grades but may cover more than three consecutive grades. The Institute is not specifying exact age ranges because of the local variation in grouping of grades within a building.

For its focused program of research, an A3 Center is required to:

- develop new or modify existing interventions to address reading and mathematics outcomes for students with learning disabilities or at risk for learning disabilities in grades 3 through 8, and
- conduct efficacy studies of the impacts of the interventions on student outcomes.

You may wish to develop and evaluate the impacts of interventions that address reading and mathematics separately. Alternatively, you may wish to consider developing and evaluating integrated interventions that combine both reading and mathematics instruction.

You may also wish to conduct studies to explore malleable factors that are associated with education (student) outcomes or to explore factors and conditions that may mediate or moderate the relations between malleable factors and education outcomes. This exploratory work will be considered supplemental to the focused program of research.

The work of an A3 Center must focus on students with learning disabilities or at risk for learning disabilities with the most intractable learning problems. By intractable the Institute means academic difficulties in reading, mathematics, or both areas as documented on students' IEPs, or problems which persist despite exposure to evidence-based, large- or small-group instruction.

5. REQUIREMENTS FOR A3 CENTER APPLICATION

Applications for an A3 Center award will be evaluated on five criteria as noted in *Section 22 Review Criteria for Scientific Merit*:

- Significance,
- Research Plan,
- Personnel,
- Management Plan, and
- Resources.

Information on each of these criteria must be included in the project narrative.

As detailed in *Section 5.B Research Plan*, you are required to describe a minimum of two research projects:

- development of a set of interventions to address reading and mathematics achievement, and
- evaluation of the efficacy of the interventions.

A. Significance

Under significance, you should clearly describe your research aims while providing a compelling rationale for the development of new interventions or further development of existing interventions and the evaluation of the interventions. The significance section should answer the following questions:

- What specific interventions are to be developed or modified?
- Why are the interventions expected to produce better student outcomes than current education practice?
- What is the overall importance of the proposed project?

You should describe the specific issue or problem your work will address, current typical practice that addresses this issue or problem, and why current practice is not satisfactory. You should also describe

your proposed interventions, key intervention components, and how the interventions are to be implemented.

Finally, you should describe initial theories of change for your proposed interventions. The Institute recognizes that theories of change may be modified over the course of the project. The theory of change should detail the process through which key intervention components are expected to lead to the desired reading and mathematics outcomes. Strong theories of change will describe how the key intervention components are related to outcomes aligned to the intervention as well as how these components may promote transfer or generalization to more global reading and mathematics outcomes and/or to other education delivery settings. You should describe the theoretical justifications supporting the theory of change (e.g., to show that the proposed intervention is a reasonable operationalization of the theory) and provide empirical evidence supporting the theory of change (e.g., to show that the proposed intervention or its components can be expected to have the intended outcomes). Certain widely used interventions that you may select to use or modify (e.g., published curricula) may not be based on a formal theory of change. In such cases, you should articulate a general theory of change for the proposed intervention in which you describe what the intervention is expected to change that will ultimately result in improved student outcomes. This general theory of change should be specific enough for both guiding the design of the evaluation (e.g., selecting an appropriate sample, measures, comparison condition) and using the results of the study to contribute to our theoretical understanding of education processes and procedures.

B. Research Plan

a. Development of a set of interventions

The Research Plan must clearly describe:

- the method for developing (or modifying) the intervention or set of interventions to the point where it can be implemented by intended users (development process),
- the method for collecting evidence on the feasibility of end users implementing the interventions in an authentic education delivery setting (evidence of feasibility), and
- the method for assessing the promise of the interventions for achieving the expected outcomes (pilot studies).

The Institute recognizes and accepts variability in defining samples of students with learning disabilities or at risk for learning disabilities with the most intractable learning problems (e.g., validated pre-intervention screening measures, slope discrepancy, dual discrepancy; Fuchs, Compton, Fuchs, Bryant, & Davis, 2008; Tran, Sanchez, Arellano, & Swanson, 2011). The Research Plan must provide a clear description of the sample(s), including:

- any coexisting student characteristics (e.g., English learners),
- any coexisting conditions (e.g., attention-deficit/hyperactivity disorder, emotional disturbance),
- setting, and
- how interventions are appropriate for the sample and setting.

It is anticipated that students who exhibit intractable learning problems and require intensive interventions in the targeted age range may exhibit a number of conditions or characteristics in addition to their achievement problems. The Institute encourages you to consider these possibilities in defining samples for study. In considering sample identification methods, you should keep in mind that the focus of this initiative is on the development and testing of interventions, not protracted identification methods. For example, spending two years defining a sample through typical RTI primary and secondary prevention models would not be appropriate.

In describing the development process, you should make clear:

- what will be developed,
- how it will be developed to enhance usability,
- the chronological order of development,

- how you will collect evidence demonstrating that the intervention can be successfully implemented in an authentic education delivery setting, and
- the procedures to assess feasibility (e.g., treatment fidelity, end user perspectives).

The Institute expects that you will refine and improve upon the initial version of the interventions by implementing them (or components of them), observing their functioning, and making necessary adjustments in the design of the interventions. You must describe your plan for carrying out such a systematic, iterative development process.

You must also provide a detailed plan for a pilot study or a series of pilot studies that will demonstrate evidence of the promise of the interventions for achieving their intended outcomes when they are implemented in authentic education delivery settings. The type of pilot study that you propose will depend upon the complexity of the interventions and the level at which the interventions are implemented (i.e., student, classroom, school). Your development plan should detail the design of your pilot study or studies, the data to be collected, the analyses to be used, and how you will conclude whether any change in student outcomes is consistent with the underlying theory of change and is large enough to be considered a sign of promise of intervention success. The Institute recognizes a continuum of rigor in the definition of "promise." Randomized controlled trials that provide unbiased estimates of effects, even if underpowered, or single case experimental designs will generally be more acceptable to reviewers than quasi-experimental designs for evaluating intervention promise. The Institute also recognizes that it may be beneficial to conduct pilot studies throughout the development phase (e.g., vary intensity to determine intervention impact or manipulate intervention components to identify the best set of components) as opposed to a single pilot test at the end of development.

b. Evaluation of the efficacy of an intervention

You must describe an initial plan for determining the efficacy of the intervention(s) that you proposed to develop in *Section 5.B.a Development of a set of interventions*. Your proposed research designs must be appropriate for answering your proposed research questions or hypotheses. When feasible, randomized controlled trials are preferred. You may consider the use of single case experimental designs as a complement to a randomized controlled trial to examine variables that may explain students' level of responsiveness. For the purposes of this Initiative, single case experimental designs to evaluate the efficacy of the developed interventions are not allowed.

Interventions may be implemented under what is sometimes called "ideal" conditions that include more implementation support or more highly trained personnel than would be expected under routine practice. Under ideal conditions, you may also implement the intervention among a more homogeneous sample of students, teachers, schools, and/or districts than would be typically found in practice. The goal is to determine if an intervention *can work* to improve student outcomes as opposed to if an intervention *will work* when implemented under conditions of routine practice.

You must provide a detailed description of your:

- research design that meets WWC evidence standards (with or without reservations),
- research methods (e.g., sample, setting),
- power analysis,
- measures that will be used to assess proximal and distal outcomes, fidelity of implementation, and comparison group practices,
- key moderators or mediators, and
- data analysis plan for evaluating the efficacy of the developed interventions.

You should include well-specified objectives that link to your design and analysis plans. You should describe how potential threats to internal and external validity will be addressed.

Studies using random assignment to intervention and comparison conditions have the strongest internal validity for causal conclusions and, thus, are preferred whenever they are feasible. When a randomized trial is used, you should clearly state and present a convincing rationale for the unit of randomization (e.g., students, classroom, teacher, or school). You should explain the procedures for assignment of groups (e.g., schools) or participants to intervention and comparison conditions and how the integrity of the assignment process will be ensured.¹ For all types of research designs, including those using random assignment, you should explain how you will document that the intervention and comparison conditions (e.g., students, teachers) are equivalent at the outset of the study.²

You should clearly address the statistical power of the research design to detect a reasonably expected and minimally important effect. You should address the clustering of participants (e.g., students in classrooms and/or schools) in your power analysis. A strong discussion of power will include:

- the minimum effect of the intervention you will be able to detect, and a justification as to:
 - why this level of effect would be expected from the intervention, and
 - why this would be a practically important effect.
- a description of how either the power for detecting the minimum effect or the minimum detectable effect size was calculated for the sample in answering the primary research questions. You should provide the statistical formula used and also describe:
 - the parameters with known values used in the formula (e.g., number of clusters, number of participants within the clusters),
 - the parameters whose values are estimated and how those estimates were made (e.g., intraclass correlations, role of covariates),
 - other aspects of the design and how they may affect power (e.g., stratified sampling/blocking, repeated observations), and
 - estimated attrition and how it was addressed in the power analysis.

Similar descriptions should be provided for any analyses to be done using subgroups of the proposed sample.

You should describe the proposed measures, including measures of outcomes, fidelity of implementation of the intervention, and what the comparison group receives. You should provide technical information on the reliability and validity of the measures, and detail procedures for collecting and coding data. Measures of student outcomes may include researcher-developed measures that are aligned with the experiences of the treatment group. However, strong applications will also include relevant measures of student outcomes that are of practical interest to educators and measures that are not strictly aligned with the intervention and are, therefore, fair to the control group. **You are encouraged to design your interventions to investigate and promote transfer of learned skills to broader domains and settings.**

You must include a detailed description of your data analysis procedures. You should make clear how the data analysis directly answers your research questions/hypotheses. You should include your data analysis plans for evaluating the impact of the interventions and for additional analyses such as subgroup impacts, the roles of moderators and mediators, and fidelity of implementation (including identifying what is needed for sufficient implementation of the intervention). For quantitative data, specific statistical procedures should be described and justified. Your analysis procedures should address any clustering of students in classes and schools, even when individuals are randomly assigned to condition, which generally requires specialized multilevel statistical analyses. In addition, you should discuss how exclusion

¹ What a randomized control trial must do to meet the WWC's evidence standards is described in the WWC Procedures and Standards Handbook (2008) available at <http://ies.ed.gov/ncee/wwc/references/library/>.

² Applicants may find the following article useful: Song, M., & Herman, R. (2010). Critical issues and common pitfalls in designing and conducting impact studies in education: Lessons learned from the What Works Clearinghouse (Phase I). *Educational Evaluation and Policy Analysis, 32*(3), 351-371.

from testing and missing data will be handled in your analysis. Also, if you intend to link multiple data sets, you should provide sufficient detail for reviewers to judge the feasibility of the linking plan.

For qualitative data, you should delineate the specific methods used to index, summarize, and interpret the data. You should show how the qualitative data will be used in the quantitative analysis (e.g., incorporating fidelity of intervention data into the impact analysis³) and/or how the qualitative analyses will complement and help explain the findings from the quantitative analysis.

c. Supplementary research (optional)

In addition to developing and evaluating the impact of the reading and mathematics interventions, you may also propose to conduct supplementary studies to explore malleable factors that are associated with education (student) outcomes or to explore factors and conditions that may mediate or moderate the relations between malleable factors and education outcomes. You should clearly describe the theoretical and empirical rationale for this supplementary research. This rationale should include a discussion of how the new knowledge could contribute to the development of innovative instructional approaches or interventions in reading or mathematics. You should make explicit the hypothesized link between the mathematics or reading outcomes, malleable factors, and any mediating or moderating conditions. You should clearly describe your study or set of supplementary exploratory studies, including descriptions of data analysis plans, and, if applicable, extant datasets, linking plans if using multiple datasets, and procedures for proposed primary data collection.

d. Timeline

You should include a timeline that makes clear when research activities will be conducted. The timeline should specify when development studies will be conducted and when evaluation activities (e.g., recruiting sample, developing measures, implementing intervention) will be conducted.

C. Personnel

Competitive applications will have leadership and staff that collectively demonstrate:

- expertise in developing reading and mathematics interventions,
- expertise in evaluating the impact of interventions, and
- sufficient experience working with education delivery settings to carry out the proposed projects.

In the project narrative, you must briefly describe the qualifications, roles, responsibilities, and percent of time to be devoted to the project for key personnel.

D. Management Plan

The Institute anticipates that the focused program of research will require the coordination of multiple scientists and other partners within and across A3 Centers. Large projects are often difficult to coordinate, and subgroups within a Center have a tendency to work independently without necessarily understanding where the rest of the team is headed. You should describe plans and procedures for the overall management of the A3 research team. The description should include plans for coordinating the work of the various subgroups (e.g., content area experts, intervention development experts, evaluation experts) within the A3 Center research team. The Institute believes that management of each A3 research team is critical for the success of this research initiative.

You must acknowledge the required participation in the A3 Leadership team and provide evidence of success in similar collaborative efforts. The work of each A3 Center needs to be informed by the work of the other Centers in the Network; therefore, the Institute expects that A3 research teams will coordinate activities. Coordination will include a common set of measures to be used in development and efficacy studies, data sharing activities, and meeting with each other. The Institute recommends that each A3 Center allocate at least 10% of the total budget to these activities.

³ See, e.g., Hulleman, C. S., & Cordray, D. S. (2009). Moving from the lab to the field: The role of fidelity and achieved relative intervention strength. *Journal of Research on Educational Effectiveness*, 2, 88-110.

The management plan should also include details of procedures for coordinating with schools and districts or other education delivery settings involved in the projects of the A3 Center.

When the proposed focused program of research includes conducting research activities in schools, you should document that you have the capacity and experience to obtain such cooperation and to describe the steps you have taken or will take to obtain it. You should refer to *Section 12 Demonstrating Access to Data and Education Delivery Settings* for more information about the documentation that must be presented to the Institute in order to receive the award.

An application may involve individuals or organizations that develop, distribute, or otherwise market products or services (for-profit or not-for-profit) that can be used as interventions or components of interventions in the proposed research activities. However, the involvement of the developer or distributor **must not jeopardize the objectivity of the research**. In cases where the developer or distributor is part of the proposed research team, you should discuss the role of the developer/distributor in the project and how you will ensure the objectivity of the research.

E. Resources

In competitive applications, you must describe having access to institutional resources that adequately support research activities and access to schools in which to conduct the research. Strong applications will document the availability and cooperation of the schools or other educational delivery settings that will be required to carry out the research proposed in the application via a letter of support from the education organization.

F. Awards

The **maximum duration** of the award for each A3 Center is **5 years**, and **the maximum award** for each 5-year A3 Center is **\$10,000,000** (total cost = direct + indirect). The size of the award depends on the scope of the project. The amount per year depends on the work planned for a particular year. **If you request a project length longer than the maximum or a budget higher than the maximum, your application will be deemed nonresponsive and will not be reviewed.**

PART III GENERAL SUBMISSION AND REVIEW INFORMATION

6. MECHANISM OF SUPPORT

The Institute intends to award cooperative agreements pursuant to this request for applications.

7. FUNDING AVAILABLE

Although the Institute plans to support the A3 Initiative described in this announcement, all awards pursuant to this request for applications are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications. The Institute anticipates funding **not more than three A3 Centers**.

The **maximum length** of the award period is **5 years**, and the maximum award for a 5-year project is **\$10,000,000** (total cost = direct + indirect). If you request a project length longer than the maximum or a budget higher than the maximum, your application will be deemed nonresponsive and will not be reviewed.

The Institute expects the *focused program of research* to comprise about 90 percent of an A3 Center's activities depending on the cost and effort required to carry out the focused program of research, with the remainder of the budget devoted to coordination of activities across the A3 Network and any administrative activities not included in the focused program of research.

8. ELIGIBLE APPLICANTS

Applicants that have the ability and capacity to conduct scientifically valid research are eligible to apply. Eligible applicants include, but are not limited to, non-profit and for-profit organizations and public and private agencies and institutions, such as colleges and universities.

Can I apply if I work at a for-profit developer or distributor of an intervention?

Yes, you may apply if you or your collaborators develop, distribute, or otherwise market products or services (for-profit or not-for-profit) that can be used as interventions or components of interventions in the proposed research activities. However, the involvement of the developer or distributor must not jeopardize the objectivity of the research. In cases where the developer or distributor is part of the proposed research team, you should discuss how you will ensure the objectivity of the research in the project narrative.

Can I apply if I am not located in the United States or if I want to collaborate with researchers located outside of the United States?

You may submit an application if your institution is not located in the territorial United States. You may also propose working with sub-awardees who are not located in the territorial United States. In both cases, your proposed work must be relevant to education in the United States. Also, institutions not located in the territorial U.S. (both primary grantees and sub-awardees) cannot charge indirect costs.

Can I apply to do research on non-U.S. topics or using non-U.S. data?

All research supported by the Institute must be relevant to education in the United States.

9. COLLABORATION ACROSS A3 NETWORK

The Institute expects an A3 Center to share emerging findings, examples of study instruments, and conceptual and theoretical ideas at meetings with other A3 Centers and Institute staff for the purpose of accelerating progress of all members of the A3 Network toward meeting the goals of the A3 Initiative. The content of findings and any related materials (both hard copy and electronic) presented by other teams will be shared only with A3 Network researchers prior to public dissemination by the owner of the findings unless written permission is granted by the Principal Investigator of the team that generated the

data, findings, or results. Public dissemination includes publications, conference presentations, and publically-available websites. It is expected that use of shared information will follow established practices for academic and scientific inquiry and will properly acknowledge the original source. The Principal Investigator for each A3 Center is responsible for ensuring that each member of the A3 Network team will sign an agreement of non-disclosure prior to receiving access to information. A copy of each signed agreement will be provided to the Institute's program officer.

A3 Centers are expected to make their data available to other A3 Centers for the purpose of accelerating progress toward meeting the goals of the A3 Initiative. Data should be made as freely available as possible while safeguarding the privacy of participants and protecting confidential and proprietary data. The provided data cannot be used in presentations and publications without prior permission by the data owner, and must be appropriately acknowledged. Before data are shared, A3 R&D Network researchers will establish a written agreement which addresses the rights and responsibilities of all participating parties prior to providing the data. A copy of all such agreements will be provided to the Institute when they are executed.

The Institute anticipates that individual A3 Centers may elect to collaborate in conducting additional research studies in order to expedite and extend their own work as part of the A3 Initiative. A3 Network researchers who wish to collaborate will establish a written agreement which addresses the rights and responsibilities of all participating parties prior to the start of the collaborative project. This agreement will address details of how data will be shared (including protection of privacy, security, and accuracy of data to be shared), expectations for authorship, and provisions for future commercial products that may be created based on the collaborative work. A copy of all such agreements will be provided to the Institute when they are executed.

Each A3 Center must budget for two meetings each year (for up to 3 days) for the first two years of the project and three trips per year for the last three years of the project in Washington, D.C. with other A3 Center research teams and Institute staff. At least two project representatives must attend the meeting.

10. THE PRINCIPAL INVESTIGATOR

The Principal Investigator is the individual who has the authority and responsibility for the proper conduct of the research, including the appropriate use of federal funds and the submission of required scientific progress reports.

Your institution is responsible for identifying the Principal Investigator. Your institution may elect to designate more than one Principal Investigator. In so doing, the institution identifies them as individuals who share the authority and responsibility for leading and directing the research project intellectually and logistically. All Principal Investigators will be listed on any grant award notification.

However, institutions applying for funding must designate a single point of contact for the project. The role of this person is primarily for communication purposes on the scientific and related budgetary aspects of the project and should be listed as the Principal Investigator. All other Principal Investigators should be listed as Co-Principal Investigators.

In addition to the meeting requirements described in *Section 9 Collaboration Across A3 Network*, the Principal Investigator is expected to attend one meeting each year (for up to 3 days) in Washington, D.C. with other grantees and Institute staff. The project's budget should include this meeting. Should the Principal Investigator not be able to attend the meeting, he/she can designate another member of the research team to attend.

11. SPECIAL CONSIDERATIONS FOR INDIRECT COST RATES

When calculating your expenses for research conducted in field settings, you should apply your institution's negotiated off-campus indirect cost rate, as directed by the terms of your institution's negotiated agreement with the federal government.

Institutions, both primary grantees and sub-awardees, not located in the territorial U.S. cannot charge indirect costs.

12. DEMONSTRATING ACCESS TO DATA AND EDUCATION DELIVERY SETTINGS

You may propose to conduct research that requires access to studies currently under way, secondary data sets, or education delivery settings (e.g., classrooms, schools, districts). In such cases, you will need to provide evidence that you have access to these resources prior to receiving funding. Strong applications will include letters of support from those who have responsibility for or access to the data or settings you wish to incorporate when you submit your application. Even in circumstances where you have included such letters with your application, the Institute may require additional supporting evidence prior to the release of funds. If you cannot provide such documentation, **the Institute may not make the award or may withhold funds.**

You will need supporting evidence of partnership or access if you are:

Building off of existing studies

You may propose studies that piggyback onto an ongoing study (i.e., that require access to subjects and data from another study). In such cases, the Principal Investigator of the existing study must be one of the members of the research team applying for the award to conduct the new project.

Using secondary data sets

If your application is being considered for funding based on scientific merit scores from the peer review panel and your research relies on access to secondary data sets (such as federally-collected data sets, state or district administrative data, or data collected by you or other researchers), you will need to provide documentation that you have access to the necessary data sets in order to receive the award. This means that if you do not have permission to use the proposed data sets at the time of application, you must provide documentation to the Institute from the entity controlling the data set(s) before the award will be made. This documentation must indicate that you have permission to use the data for the proposed research for the time period discussed in the application. If you obtained permission to use a proposed data set prior to submitting your application, the Institute may ask you to provide updated documentation indicating that you still have permission to use the data set to conduct the proposed research during the project period.

Conducting research in or with education delivery settings

If your application is being considered for funding based on scientific merit scores from the peer review panel and your research relies on access to education delivery settings (e.g., schools), you will need to provide documentation that you have access to the necessary schools in order to receive the award. This means that if you do not have permission to conduct the proposed project in the necessary number of schools at the time of application, you will need to provide documentation to the Institute indicating that you have successfully recruited the necessary number of settings for the proposed research before the full first-year costs will be awarded. If you recruited sufficient numbers of schools prior to the application, the Institute may ask you to provide documentation that the schools originally recruited for the application are still willing to partner in the research.

In addition to obtaining evidence of access and the Institute's expectations for collaboration across the A3 Network described in *Section 9 Collaboration Across A3 Network*, the Institute strongly advises

applicants to establish a written agreement, within three months of receipt of an award, among all key collaborators within an A3 Center and their institutions (e.g., Principal and Co-Principal Investigators) regarding roles, responsibilities, access to data, publication rights, and decision-making procedures.

13. PUBLIC AVAILABILITY OF RESULTS

Recipients of awards are expected to publish or otherwise make publicly available the results of the work supported through this program. Institute-funded investigators **must submit final, peer-reviewed manuscripts** resulting from research supported in whole or in part by the Institute to the Educational Resources Information Center (ERIC, <http://eric.ed.gov>) upon acceptance for publication. An author's final manuscript is defined as the final version accepted for journal publication and includes all graphics and supplemental materials that are associated with the article. The Institute will make the manuscript available to the public through ERIC no later than 12 months after the official date of publication.

Institutions and investigators are responsible for ensuring that any publishing or copyright agreements concerning submitted articles fully comply with this requirement.

14. SPECIAL CONDITIONS ON GRANTS AND COOPERATIVE AGREEMENTS

The Institute may impose special conditions on an award if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has an unsatisfactory financial or other management system; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

15. SUBMITTING A LETTER OF INTENT

The Institute asks that you submit a letter of intent by **4:30 p.m.** Washington D.C. time on July 19, 2012. The Institute staff use the information in the letters of intent to identify the expertise needed for the scientific peer review panels, secure a sufficient number of reviewers to handle the anticipated number of applications, and provide feedback to you on your research idea. The Institute encourages you to submit a letter of intent even if you think you might later decide not to submit an application. The letter of intent is not binding and does not enter into the review of a subsequent application. The letter of intent must be submitted electronically using the instructions provided at <https://iesreview.ed.gov>. Receipt of the letter of intent will be acknowledged via email. Should you miss the deadline for submitting a letter of intent, you still may submit an application. The Institute asks that you inform the relevant program officer of your intention to submit an application if you miss the deadline.

A. Content

The letter of intent should include:

- 1) Descriptive title
- 2) Brief description of the proposed focused program of research
- 3) Name, institutional affiliation, address, telephone number and e-mail address of the Principal Investigator and any co-Principal Investigators, key collaborators, and contractors
- 4) Duration of the proposed project
- 5) Estimated total budget request (the estimate need only be a rough approximation)

B. Format and Page Limitation

The online submission page (<https://iesreview.ed.gov>) contains fields for each of the content areas described above. You will use these fields to provide the necessary information. The project description should be single-spaced and should not exceed one page (about 3,500 characters).

16. APPLICATION INSTRUCTIONS AND APPLICATION PACKAGE

A. Documents Needed to Prepare Applications

To complete and submit an application, you need to review and use three documents: the Request for Applications, the IES Grants.gov Application Submission Guide, and the Application Package.

1) The *Request for Applications* for the Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative (CFDA 84.324D) describes the substantive requirements for a research application.

✓ Request for Applications <http://ies.ed.gov/funding/>

2) The *IES Grants.gov Application Submission Guide* provides the instructions for completing and submitting the forms included in the Application Package.

✓ IES Grants.gov Application Submission Guide <http://ies.ed.gov/funding/>

Additional help navigating Grants.gov is available in the Grants.gov User Guides:

✓ Grants.gov User Guides http://www.grants.gov/applicants/app_help_reso.jsp

3) The *Application Package* provides all of the forms that you must complete and submit. The application form approved for use in the competitions specified in this RFA is the government-wide SF-424 Research and Related (R&R) Form (OMB Number 4040-0001). *Section C* below explains how to download the Application Package from Grants.gov.

B. Date Application Package is Available on Grants.gov

The Application Package will be available on <http://www.grants.gov/> by the following date:

Application Package

July 19, 2012

C. How to Download the Correct Application Package

a. CFDA number

To find the correct downloadable Application Package, you must first search by the CFDA number for each IES Request for Applications *without* the alpha suffix. For the Special Education research requests for applications, applicants must search on: **CFDA 84.324**.

b. Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative Application Package

The Grants.gov search on CFDA 84.324 will yield more than one Application Package. To find the Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative Request for Applications, you must download the package for the appropriate deadline.

Application Package: Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative CFDA 84.324D

You must download the Application Package that is designated for the grant competition and competition deadline. If you use a different Application Package, even if it is for an Institute competition, the application will be submitted to the wrong competition. Applications submitted using the incorrect application package may not be reviewed for the Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative competition.

17. MANDATORY ELECTRONIC SUBMISSION OF APPLICATIONS AND DEADLINE

Applications must be **submitted electronically and received by 4:30:00 p.m., Washington, D.C. time** on the application deadline date.

Grant applications must be submitted electronically through the Internet using the software and application package provided on the Grants.gov web site: <http://www.grants.gov/>. You must follow the

application procedures and submission requirements described in the *IES Grants.gov Application Submission Guide* and the instructions in the User Guides provided by Grants.gov.

Please note that to submit an electronic application through Grants.gov, your institution must be registered with Grants.gov (http://www.grants.gov/applicants/organization_registration.jsp).

To register with Grants.gov, your institution must have:

- a valid Duns and Bradstreet Universal Numbering Systems (DUNS) number, and
- an active registration with the Central Contractor Registry (CCR).

Your institution is strongly encouraged to start the Grants.gov registration process at least four (4) weeks prior to the application due date.

Applications submitted in paper format will be rejected unless the applicant (a) qualifies for one of the allowable exceptions to the electronic submission requirement described in the Federal Register notice announcing the Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative (CFDA Number 84.324D) competition described in this Request for Applications and (b) submits, no later than two weeks before the application deadline date, a written statement to the Institute that documents that the applicant qualifies for one of these exceptions. For more information on using Grants.gov, applicants should visit the Grants.gov web site.

18. TECHNICAL ASSISTANCE FOR APPLICANTS

The Institute encourages you to contact the program officer listed in *Section 25 Inquiries May Be Sent To* as you develop your application. The program officer can offer advice on preparing applications, as well as substantive advice on your research idea and draft project narrative.

In addition, you are encouraged to sign up for the Institute's funding opportunities webinars for advice on grant writing or submitting your application. For more information regarding webinar topics, dates, and registration process, see <http://ies.ed.gov/funding/webinars/index.asp>.

19. WRITING YOUR APPLICATION: CONTENT AND FORMATTING REQUIREMENTS

A. Overview

In this section, the Institute provides instructions regarding the content of the (a) project summary/abstract, (b) project narrative, (c) Appendix A, (d) Appendix B, (e) Appendix C, and (f) bibliography and references cited. Instructions for all other documents to be included in the application (i.e., the SF-424 forms, biographical sketches, narrative budget justification, and human subjects narrative) are provided in the *IES Grants.gov Application Submission Guide*.

B. General Format Requirements

Margin, format, and font size requirements for the project summary/abstract, project narrative, Appendix A, Appendix B, Appendix C, and bibliography are described in this section. You must adhere to the type size and format specifications for the entire narrative, including footnotes, to ensure that your text is easy for reviewers to read and that all applicants have the same amount of available space in which to describe their projects.

a. Page and margin specifications

For the purposes of applications submitted under this RFA, a "page" is 8.5 in. x 11 in., on one side only, with 1-inch margins at the top, bottom, and both sides.

b. Spacing

Text must be single spaced in the narrative.

c. Type size (font size)

Type must conform to the following three requirements:

- The height of the letters must not be smaller than a type size of 12 point.
- The type density, including characters and spaces, must be no more than 15 characters per inch (cpi). For proportional spacing, the average for any representative section of text must not exceed 15 cpi.
- The type size must yield no more than 6 lines of type within a vertical inch.

To ensure your font meets these requirements, you should check the type size using a standard device for measuring type size, rather than relying on the font selected for a particular word processing/printer combination. The type size used must conform to all three requirements. **These requirements apply to the .PDF file as submitted.**

When applicants use small type size, it difficult for reviewers to read the application and applicants may receive an unfair advantage by allowing for more text in their applications. **Consequently, the use of small type font is grounds for the Institute to not accept an application for review.**

As a practical matter, applicants who use a 12-point Times New Roman font without compressing, kerning, condensing, or other alterations typically meet these requirements. Figures, charts, tables, and figure legends may be in a smaller type size but must be readily legible.

d. Graphs, diagrams, tables

The Institute encourages applicants to use black and white in graphs, diagrams, tables, and charts. If you choose to use color, you must ensure that the material reproduces well when photocopied in black and white.

C. Project Summary/Abstract

a. Submission

You must submit the project summary/abstract as a separate .PDF attachment.

b. Page limitations and format requirements

The project summary/abstract is limited to one single-spaced page and must adhere to the margin, format, and font size requirements above.

c. Content

The project summary/abstract should include:

- 1) Title of the project
- 2) A brief description of the focused program of research
- 3) A brief description of the setting in which the research will be conducted (e.g., rural school districts in Alabama)
- 4) A brief description of the sample that will be involved in the study (e.g., age or grade level, race/ethnicity, SES)
- 5) A brief description of the interventions to be developed and evaluated
- 6) A brief description of the control or comparison condition (i.e., who the participants in the control condition are and what they will experience)
- 7) A brief description of the primary research methods
- 8) A brief description of measures and key outcomes
- 9) A brief description of the data analytic strategy
- 10) A list of the key personnel

D. Project Narrative

a. Submission

The A3 Center project narrative will be submitted as a .PDF attachment.

b. Page limitations and format requirements

The project narrative is limited to **35 single-spaced pages** for all applicants. The 35-page limit for the project narrative does not include any of the SF-424 forms, the 1-page summary/abstract, the appendices, research on human subjects information, bibliography, biographical sketches of senior/key personnel, narrative budget justification, subaward budget information, or certifications and assurances. If the Institute determines that the narrative exceeds the 35 single-spaced page limit, the Institute will remove any pages after the thirty-fifth page of the narrative.

To help the reviewers locate information and conduct the highest quality review, you should write a concise and easy to read application, with pages numbered consecutively using the top or bottom right-hand corner.

c. Format for citing references in text

To ensure that all applicants have the same amount of available space in which to describe their projects in the project narrative, you should use the author-date style of citation (e.g., James, 2004), such as that described in the *Publication Manual of the American Psychological Association, 6th Ed.* (American Psychological Association, 2009).

d. Content

Your project narrative must include **five sections** in order to be compliant with the requirements of the Request for Applications: (a) Significance, (b) Research Plan, (c) Personnel, (d) Management Plan, and (e) Resources. Information to be included in each of these sections is detailed in *Part II Requirements of the Proposed Research*. Your response to the requirements outlined in this section will provide the majority of the information on which reviewers will evaluate the application.

E. Appendix A (Optional)

a. Submission

If you have an Appendix A, you must include it at the end of the project narrative and submit it as part of the same .PDF attachment.

b. Page limitations and format requirements

Appendix A is limited to 15 pages. It must adhere to the margin, format, and font size requirements described in *Section 19.B General Format Requirements*.

c. Content

You may include figures, charts, or tables that supplement the project narrative as well as examples of measures (e.g., tests, surveys, observation and interview protocols) to be used in the project in Appendix A. These are the only materials that may be included in Appendix A; all other materials will be removed prior to review of the application. You should include narrative text in the 35-page project narrative, not in Appendix A.

F. Appendix B (Optional)

a. Submission

If you choose to have an Appendix B, you must include it at the end of the project narrative, following Appendix A (if included), and submit it as part of the same .PDF attachment.

b. Page limitations and format requirements

Appendix B is limited to 10 pages. It must adhere to the margin, format, and font size requirements described in *Section 19.B General Format Requirements*.

c. Content

In Appendix B, you may include examples of curriculum material, computer screen shots, assessment items, or other materials used in the intervention to be developed and evaluated. These are the only materials that may be included in Appendix B; all other materials will be removed prior to review of the application. You should include narrative text describing these materials in the 35-page project narrative, not in Appendix B.

G. Appendix C (Optional)

a. Submission

If you choose to have an Appendix C, you must include it at the end of the project narrative, following Appendix B (or if no Appendix B is included, then Appendix C should follow Appendix A if it is included) and submit it as part of the same .PDF attachment.

b. Page limitations and format requirements

Appendix C does not have a page limit. Appendix C contains letters of agreement from research partners (e.g., schools, districts, states, consultants). You must ensure that the letters reproduce well so that reviewers can easily read them. Do not reduce the size of the letters.

c. Content

You should include in Appendix C the letters of agreement from partners (e.g., schools and districts), data sources (e.g., state agencies holding administrative data), and consultants.

Letters of agreement should include enough information to make it clear that the author of the letter understands the nature of the commitment of time, space, and resources to the research project that will be required if the application is funded. A common reason for projects to fail is loss of participating schools and districts. Letters of agreement regarding the provision of data should make it clear that the author of the letter will provide the data described in the application for use in the proposed research and in time to meet the proposed schedule.

H. Bibliography and References Cited

a. Submission

You must submit this section as a separate .PDF attachment.

b. Page limitations and format requirements

There are no limitations to the number of pages in the bibliography. The bibliography must adhere to the margin, format, and font size requirements described in *Section 19.B General Format Requirements*.

c. Content

You should include complete citations, including the names of all authors (in the same sequence in which they appear in the publication), titles (e.g., article and journal, chapter and book, book), page numbers, and year of publication for literature cited in the project narrative.

20. APPLICATION PROCESSING

Applications must be **submitted electronically and received by 4:30:00 p.m., Washington, D.C. time** on the application deadline date listed in the heading of this request for applications. After receiving the applications, Institute staff will review each application for completeness and for responsiveness to this request for applications. Applications that do not address specific requirements of this request will be returned to the applicants without further consideration.

Once you formally submit an application, Institute personnel will not comment on its status until the award decisions are announced except with respect to issues of completeness and eligibility.

21. PEER REVIEW PROCESS

The Institute will forward all applications that are compliant and responsive to this request to be evaluated for scientific and technical merit. Reviews are conducted in accordance with the review criteria stated below by a panel of scientists who have substantive and methodological expertise appropriate to the program of research and request for applications.

Each compliant and responsive application is assigned to one of the Institute's scientific review panels. At least three primary reviewers will complete written evaluations of the application, identifying strengths and weaknesses related to each of the review criteria. Primary reviewers will independently assign a score for each criterion, as well as an overall score, for each application they review. Based on the overall scores assigned by primary reviewers, the Institute calculates an average overall score for each application and prepares a preliminary rank order of applications before the full peer review panel convenes to complete the review of applications.

The full panel will consider and score only those applications deemed to be the most competitive and to have the highest merit, as reflected by the preliminary rank order. A panel member may nominate for consideration by the full panel any application that he or she believes merits full panel review but that would not have been included in the full panel meeting based on its preliminary rank order.

22. REVIEW CRITERIA FOR SCIENTIFIC MERIT

The purpose of Institute-supported research is to contribute to solving education problems and to provide reliable information about the education practices that support learning and improve academic achievement and access to education for all students. The Institute expects reviewers for all applications to assess the following aspects of an application in order to judge the likelihood that the proposed research will have a substantial impact on the pursuit of that goal. Information pertinent to each of these criteria is also described above in *Part II Requirements of the Proposed Research*.

A. Significance

Does the applicant provide a compelling rationale for the significance of the project as defined in the sections on the significance of the focused program of research?

B. Research Plan

Does the applicant meet the requirements described in the methodological requirements for the focused program of research?

C. Personnel

Does the description of the personnel make it apparent that the Principal Investigator, project director, and other key personnel possess appropriate training and experience and will commit sufficient time to competently implement the proposed research? Does the team have a history of successful collaborations? Does the team demonstrate that school and district personnel will contribute to the development and implementation of the interventions?

D. Management Plan

Do the plans and procedures for the overall management of the project indicate that the team has the capacity to efficiently and successfully complete the proposed research and coordinate with other members of the A3 Network?

E. Resources

Does the applicant have the facilities, equipment, supplies, and other resources required to support the proposed activities? Do the commitments of each partner show support for the implementation and success of the project?

23. RECEIPT AND START DATE SCHEDULE

A. Letter of Intent Receipt Date

July 19, 2012

B. Application Deadline Date

September 20, 2012

C. Earliest Anticipated Start Date

July 1, 2013

D. Latest Possible Start Date

September 1, 2013

The review and award process takes approximately eight months from the time of submission of the application. Applicants will be notified about funding decisions via email *no later than* the earliest anticipated start date (July 1, 2013).

24. AWARD DECISIONS

The following will be considered in making award decisions:

- Scientific merit as determined by peer review,
- Responsiveness to the requirements of this request,
- Performance and use of funds under a previous Federal award,
- Contribution to the overall program of research described in this request, and
- Availability of funds.

25. INQUIRIES MAY BE SENT TO

Dr. Kristen Lauer
Institute of Education Sciences
400 Maryland Ave, SW
CP – 508h
Washington, DC 20202

Email: Kristen.Lauer@ed.gov
Telephone: (202) 219-0377

26. PROGRAM AUTHORITY

20 U.S.C. 9501 *et seq.*, the "Education Sciences Reform Act of 2002," Title I of Public Law 107-279, November 5, 2002. This program is not subject to the intergovernmental review requirements of Executive Order 12372.

27. APPLICABLE REGULATIONS

The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 74, 77, 80, 81, 82, 84, 85, 86 (part 86 applies only to institutions of higher education), 97, 98, and 99. In addition 34 CFR part 75 is applicable, except for the provisions in 34 CFR 75.100, 75.101(b), 75.102, 75.103, 75.105, 75.109(a), 75.200, 75.201, 75.209, 75.210, 75.211, 75.217, 75.219, 75.220, 75.221, 75.222, and 75.230.

28. REFERENCES

- Al Otaiba, S., & Fuchs, D. (2006). Who are the young children for whom best practices in reading are ineffective? An experimental and longitudinal study. *Journal of Learning Disabilities, 39*, 414–431. doi: 10.1177/00222194060390050401
- American Psychological Association, Research Office (2009). *Publications Manual of the American Psychological Association (6th ed.)*. Washington, D.C.: American Psychological Association.
- Bryant, D. P., Bryant, B. R., Roberts, G., Vaughn, S., Pfannenstiel, K. H., Porterfield, J., & Gersten, R. (2011). Early numeracy intervention program for first-grade students with mathematics difficulties. *Exceptional Children, 78*, 7-23.
- Compton, D. L., Fuchs, L. S., Fuchs, D., Lambert W. & Hamlett, C. (2012). The cognitive and academic profiles of reading and mathematics learning disabilities. *Journal of Learning Disabilities, 45*, 79-95. doi: 10.1177/0022219410393012
- Fuchs, D., Compton, D. L., Fuchs, L. S., Bryant, J., & Davis, G. N. (2008). Making “secondary intervention” work in a three-tier responsiveness-to-intervention model: Findings from the first-grade longitudinal reading study of the National Research Center on Learning Disabilities. *Reading and Writing Quarterly, 21*, 413-436. doi: 10.1007/s11145-007-9083-9
- Fuchs, L. S. & Fuchs, D. (2002). Mathematical problem-solving profiles of students with mathematics disabilities with and without comorbid reading disabilities. *Journal of Learning Disabilities, 35*, 563-573. doi: 10.1177/00222194020350060701
- Fuchs, L. S., Fuchs, D., & Compton, D. L. (2010). Rethinking response to intervention at middle and high school. *School Psychology Review, 39*, 22-28.
- Fuchs, L. S., Fuchs, D., Craddock, C., Hollenbeck, K. N., Hamlett, C. L., & Schatschneider, C. (2008). Effects of small-group tutoring with and without validated classroom instruction on at-risk students' math problem solving: Are two tiers of prevention better than one? *Journal of Educational Psychology, 100*, 491–509. doi: 10.1037/0022-0663.100.3.491
- Gersten, R., Beckman, S., Clarke, B., Foegen, A., Marsh, L., Star, J., & Witzel, B. (2009). *Assisting Students Struggling with Mathematics: Response to Intervention (RtI) for Elementary and Middle Schools (NCEE 2009–4060)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, US Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>
- Harn, B. A., Linan-Thompson, S., & Roberts, G. (2008). Intensifying instruction: Does additional instructional time make a difference for the most at-risk first graders? *Journal of Learning Disabilities, 41*, 115-125. doi: 10.1177/0022219407313586
- Individuals with Disabilities Education Improvement Act of 2004, P.L. 108-446, 118 Stat. 2647 (2004).
- Mathes, P. G., Denton, C. A., Fletcher, J. M., Anthony, J. L., Francis, D. J., & Schatschneider, C. (2005). The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly, 40*, 148-182. doi: 10.1598/RRQ.40.2.2
- McMaster, K., Fuchs, D., Fuchs, L., & Compton, D. (2005). Responding to nonresponders: an experimental field trial of identification and intervention methods. *Exceptional Children, 71*, 445–63.

- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
- National Mathematics Advisory Panel. (2008). *Foundations for success: The final report of the National Mathematics Advisory Panel*. Retrieved from <http://www2.ed.gov/about/bdscomm/list/mathpanel/report/final-report.pdf>
- O'Connor, R. E., Fulmer, D., Harty, K. R., & Bell, K. M. (2005). Layers of reading intervention in kindergarten through third grade: Changes in teaching and student outcomes. *Journal of Learning Disabilities, 38*, 440-445. doi: 10.1177/00222194050380050701
- O'Connor, R. E., Harty, K. R., & Fulmer, D. (2005). Tiers of intervention in kindergarten through third grade. *Journal of Learning Disabilities, 38*, 532-538. doi: 10.1177/00222194050380060901
- Raghubar, K., Cirino, P., Barnes, M., Ewing-Cobbs, L., Fletcher, J., & Fuchs, L. (2009). Errors in multi-digit arithmetic and behavioral inattention in children with math difficulties. *Journal of Learning Disabilities, 42*(4), 356-371. doi: 10.1177/0022219409335211
- Riccomini, P. & Witzel, B. (2010) *Response to intervention in math*. Corwin Press.
- Simmons, D. C., Coyne, M. D., Hagan-Burke, S., Kwok, O., Johnson, C., Zuo, Y, ...Crevecoeur, Y.C. (2011). Effects of supplemental reading intervention in authentic contexts: A comparison of kindergartners' response. *Exceptional Children, 77*, 207-228.
- Simmons, D. C., Coyne, M. D., Kwok, O., McDonagh, S., Harn, B. A., & Kame'enui, E. J. (2008). Indexing response to intervention: A longitudinal study of reading risk from kindergarten through third grade. *Journal of Learning Disabilities, 41*, 158-173. doi: 10.1177/0022219407313587
- Snow, C. E., Burns, M., & Griffin, P. (Eds.) (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Swanson, H. L., Jerman, O., & Zheng, X. (2009). Math disabilities and reading disabilities: Can they be separated? *Journal of Psychoeducational Assessment, 27*, 175-196. doi: 10.1177/0734282908330578
- Torgesen, J. K. (2000). Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research & Practice, 15*, 55-64. doi: 10.1207/SLDRP1501_6
- Tran, L., Sanchez, T., Arellano, B., & Swanson, H. L. (2011). A meta-analysis of the RTI literature for children at risk for reading disabilities. *Journal of Learning Disabilities, 44*, 283-295. doi: 10.1177/0022219410378447
- U.S. Department of Education, Institute of Education Sciences, National Assessment of Educational Progress (NAEP) Data, 2011, Retrieved from <http://nces.ed.gov/nationsreportcard/>
- Vaughn, S., Wexler, J., Roberts, G., Barth, A. A., Cirino, P. T., Romain, M. A., & Denton, C. D. (2011). Effects of individualized and standardized interventions on middle school students with reading disabilities. *Exceptional Children, 77*, 391-407.

- Vellutino, F. R., Scanlon, D. M., Sipay, E. R., Small, S. G., Pratt, A., Chen, R. S., & Denckla, M. B. (1996). Cognitive profiles of difficult to remediate and readily remediated poor readers: Early intervention as a vehicle for distinguishing between cognitive and experiential deficits as basic causes of specific reading disability. *Journal of Educational Psychology, 88*, 601–638. doi: 10.1037/0022-0663.88.4.601
- Vellutino, F.R., Scanlon, D.M., Zhang, H., & Schatschneider, C. (2008). Using response to kindergarten and first grade intervention to identify children at-risk for long-term reading difficulties. *Reading and Writing, 21*, 437-480. doi: 10.1007/s11145-007-9098-2
- Wanzek, J. & Vaughn, S. (2007). Research-based implications from extensive early reading interventions. *School Psychology Review, 36*, 541–561.