



**REQUEST FOR APPLICATIONS**  
**EDUCATION RESEARCH AND DEVELOPMENT**  
**CENTER PROGRAM**  
**CFDA Number: 84.305C**

<b><u>COMPETITION</u></b> <b><u>ROUND</u></b>	<b>Letter of Intent</b> <b>Due Date</b>	<b>Application Package</b> <b>Available</b>	<b>Application</b> <b>Due Date</b>
	<a href="https://iesreview.ed.gov/">https://iesreview.ed.gov/</a>	<a href="http://www.grants.gov/">http://www.grants.gov/</a>	<a href="http://www.grants.gov/">http://www.grants.gov/</a>
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## **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 Education Research and Development Center program. For the FY 2012 competition, the Institute will consider only applications that meet the requirements outlined below under *Part II Education Research and Development Center Program* and *Part III Requirements of the Proposed Research*.

Separate announcements will be 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 Education Research and to the discretionary grant competitions funded through the Institute's National Center for Special Education Research (<http://ies.ed.gov/funding>).

## **PART II EDUCATION RESEARCH AND DEVELOPMENT CENTER PROGRAM**

### **2. PURPOSE**

Under the Education Sciences Reform Act of 2002, the Institute supports national research and development centers (R&D Centers) that are intended to contribute significantly to the solution of education problems in the United States by engaging in research, development, evaluation, and national leadership activities aimed at improving the education system and, ultimately, student achievement. Each of the R&D Centers conducts a focused program of education research in its topic area. In addition, each Center conducts supplemental research within its broad topic area and provides national leadership in advancing evidence-based practice and policy within its topic area. For information on existing Institute centers, please see <http://ies.ed.gov/ncer/RandD/>.

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 researchers to develop partnerships with stakeholder groups to advance the relevance of their work, the accessibility of their publications, and the usability of their findings for the day-to-day work of education practitioners and policymakers.

For the FY 2012 Education Research and Development Center competition, the Institute invites applications for (a) the National Education Research and Development Center on Cognition and Adult Literacy and (b) the National Education Research and Development Center on State and Local Policy.

### **3. BACKGROUND**

The Institute's R&D Centers grapple with key education issues that face our nation. Through the Institute's R&D program, researchers have greater resources to tackle more complex education problems, create innovative education solutions, and contribute to knowledge and theory in the education sciences. The Institute currently funds 16 national education R&D Centers and 3 special education R&D Centers. Here are examples of the types of issues that they are addressing.

- Educators and policymakers argue that the major impediments to increasing college enrollment among low-income students are the complexity of the federal application process for financial aid and the lack of information that families have about financial aid. The *National Center for Postsecondary Research* has tested interventions to determine which combination of services, including direct assistance with completing the FAFSA (Free Application for Federal Student Aid) application process, will improve access to postsecondary education for low-income students.

- School districts are experimenting with the use of incentives for teachers, administrators, and schools to improve the quality of education in their schools. How should performance incentive programs be structured to achieve desired goals and minimize unintended negative consequences? The *National Center for Teacher Performance Incentives* has conducted a number of studies to test the effects of different parameters for incentive programs.
- Young children who have not had sufficient language and early literacy experiences prior to kindergarten face significant challenges learning to read. These children often continue to experience poor reading skills throughout school. The *Center for Response to Intervention in Early Childhood* is creating a Response to Intervention model including innovative interventions to promote the development of language and early literacy skills and an assessment system for tracking children's progress.
- Despite advances in education technology, many argue that the full potential of electronic media for educational purposes has yet to be reached. Typical products are not ones that students would naturally gravitate to outside of school — lacking high-quality graphics and sounds, sophisticated user interface, a reward structure that cultivates a strong sense of motivation, and engaging activities that maintain the user's attention. The Institute is currently funding two R&D Centers in education technology. The Centers are capitalizing on rich multimedia gaming environments to create innovative instructional products: one Center is focusing on teaching mathematics to ninth graders and the other is addressing science content for seventh graders.
- The recent development of state longitudinal data systems offers the opportunity to answer a multitude of education policy-relevant questions but requires sophisticated methodological expertise to handle complicated datasets and complex analyses. *The Center for the Analysis of Longitudinal Data in Education Research* (CALDER) brings together a group of economists with such expertise to take advantage of comprehensive education databases in Florida, Missouri, New York, North Carolina, Texas, and Washington state to examine the relations between teacher workforce and governance policies (e.g., certification, compensation, accountability, and choice) and key education outcomes (e.g., student achievement, graduation rates, teacher retention).

For its FY 2012 R&D Center competition, the Institute is interested in applications that offer the greatest promise for (1) contributing to the solution of a specific education problem within each R&D Center topic described below and to the generation of new knowledge and theories relevant to the focus of the R&D Center; (2) providing relatively rapid research and scholarship on supplemental questions that emerge within the R&D Center's topic area and that are not being addressed adequately elsewhere; and (3) providing national leadership within the R&D Center's topic by developing position papers, hosting meetings, and engaging in dialogue with researchers, practitioners, and policymakers in order to identify promising areas of research, development, and dissemination for the field and to advance evidence-based policy and practice.

## PART III REQUIREMENTS OF THE PROPOSED RESEARCH

### 4. TOPIC ONE: REQUIREMENTS FOR THE NATIONAL RESEARCH AND DEVELOPMENT CENTER ON COGNITION AND ADULT LITERACY

Approximately 30 million American adults, or 14 percent of the adult population, have difficulty reading (Kutner, Greenberg, Jin, Boyle, Hsu, & Dunleavy, 2007). Some of these adults struggle to read because they are non-literate in English, others because they have some, but not all, of the skills required to read and comprehend connected text. In addition, about 22 percent of the adult population have limited quantitative skills and can use their knowledge of numbers to perform only simple quantitative operations (mostly addition) when the mathematical information is concrete and familiar (Kutner et al., 2007).

Adults lacking these basic prose and quantitative literacy skills struggle to succeed in the workplace. Approximately 44 percent of adults who scored below basic in prose literacy on the most recent National Assessment of Adult Literacy have incomes that place them below the poverty threshold (Baer, Kutner, & Sabatini, 2009). The need to improve the skills of adults with limited reading and numeracy skills has been addressed, in part, by the provision of adult education. Of the nearly 2.2 million adults who participated in adult education programs in 2009-2010, approximately 45 percent enrolled in adult basic education, an additional 42 percent participated in English language learners programs, and the remaining 13 percent were enrolled in adult secondary education.<sup>1</sup> Adult learners within each of these program types have widely varying education needs, and the effectiveness of adult education programs in providing learners with the literacy and numeracy skills that they need for workforce success is mostly unknown.

In light of the need to provide effective and efficient training in basic literacy and numeracy skills for substantial numbers of adults in the United States, the Institute is establishing a National Research and Development Center on Cognition and Adult Literacy.

The knowledge base on how to support adult learners most effectively is still nascent. What are the most effective strategies for teaching this diverse group of adult learners? Can we learn from research describing typical learning trajectories in reading and mathematics, or are there distinctive trajectories of struggling adult learners? Are there underlying cognitive processes that may contribute to the difficulty these adults have experienced in learning to read and execute basic math operations that must be remediated in order for adults to master these critical skills? Appropriately answering these questions will require attention to the cognitive differences that adults bring into the learning environment. The National Research and Development Center on Cognition and Adult Literacy will gather evidence of the cognitive processes that underlie adult acquisition of literacy and/or numeracy and use this empirical base to develop and test innovative instructional approaches for adult learners.

To address the various needs of adult learners, the adult education system has divided its services into three broad categories: adult basic education (ABE), adult secondary education (ASE), and adult English language learning (EL). However, these distinctions don't necessarily address students' difficulties sufficiently or efficiently. Furthermore, the instruction occurring in these different settings doesn't necessarily attend to the unique challenges facing adult learners of reading or math. For example, many adults participating in adult basic education (ABE) struggle with basic word level skills, while others are able to comprehend short texts. Some research is beginning to accumulate that addresses these questions with respect to struggling adult readers. A recent analysis of the component skills of struggling adult readers indicates that there is substantial variability across these adult readers (e.g., Strucker, Yamamoto, & Kirsch, 2007) and that the variable patterns of reading skills look distinctly different from the patterns seen in children who are struggling to read (Greenberg, Ehri, & Perin, 2002; Mellard, Fall, &

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<sup>1</sup> U.S. Department of Education, Office of Vocational Education, Reports of Aggregate National Reporting System Data. Table: Participants By Entering Educational Functioning Level, Ethnicity, And Sex; Program Year: 2009-2010; All Regions. Downloaded on March 24, 2011 from <http://wdcrobcolp01.ed.gov/CFAPPS/OVAE/NRS/reports/index.cfm>.

Mark, 2009). In children, a typical developmental pathway to reading includes word recognition becoming an automatic process and differences in comprehension becoming associated, not with word level skills, but with listening comprehension measures. Struggling adult readers are not showing the expected transition in which comprehension becomes more strongly correlated with listening comprehension and less dependent on word level skills. Researchers have also found that measures of underlying cognitive function (e.g., speed of processing, working memory capacity) contribute indirectly to reading comprehension in struggling adult readers. These findings suggest that theoretical models of reading comprehension that derive from the developmental trajectories of typically developing readers may not apply to these struggling adult readers. Although some research has examined the role of working memory in reading comprehension (e.g., Sabatini, 2002), little research has explored how other cognitive factors, such as executive function and knowledge organization, contribute to the difficulties experienced by struggling adult learners. Virtually no research has applied what has been learned through the cognitive sciences to improving instruction for struggling adult learners in the context of adult education.

Programs serving adult English learners (EL) make up a second type of adult education program. Adults in these classes span the continuum from those who are highly educated and literate in their first language to those who have limited literacy and formal education in their first language. Both types of learners seek instruction in English and may be in the same classes. The goal of most of these EL programs is to provide instruction in English and to rapidly transition these learners to ABE or adult secondary education (ASE) courses appropriate to their incoming literacy levels. However, a recent review of the literature on EL instruction found a serious shortage of materials focused on the needs of adult EL students and on appropriate instructional strategies and program organization to support those transitions (Hector-Mason, Shaewitz, Sherman, et al., 2009). In addition, research has explored the cognitive benefits and interferences that result from learning a second language, but that research literature has not been incorporated into the development of EL programs. Given the large numbers of adult English learners in adult education programs and their variable instructional needs, it is critically important to identify effective strategies for teaching these learners.

The third major type of adult education program is adult secondary education (ASE). Much research relevant to teaching this population overlaps with postsecondary research and focuses on how best to teach the higher level skills necessary to pass the General Educational Development (GED) exams. However, passing the GED is not entirely congruent with skills needed for postsecondary (or workforce) success. An important line of research with this group of learners would be to consider how to reorganize the content of instruction to make it more aligned with postsecondary skills (e.g., move it beyond test preparation). Discovering how to deliver instruction more efficiently so that this population of learners can move into postsecondary education or the workforce could be one question of interest for the Center.

Although most research on adult learners has focused on reading, many adults also struggle with quantitative literacy skills. Results from the National Assessment of Adult Literacy, carried out in 2003, find that of adults whose highest level of education is less than high school, 64 percent have quantitative skills that are below basic (Kutner et al., 2007). In addition, college students in remedial math courses are found to have particular difficulties with fractions and decimals and often lack the conceptual knowledge to support math skills (Stigler, Givvin, and Thompson, 2010). Given the national call for adults with high levels of mathematics skill in the labor market, there is a pressing need for research to guide instruction in mathematics in adult education. A recent review of the literature in adult numeracy (Condelli et al., 2006) indicates that there is "virtually no systematic research in ABE identifying effective mathematics instruction" (pg. 62). However, there has been an increase in research focused on effective mathematics instruction in K-12 settings, and findings from cognitive science and from curriculum evaluation may provide insight into the development and evaluation of instructional practices for adult learners.

Through its regular research programs, the Institute is developing a research portfolio addressing the needs of adult learners. The majority of this work has focused on developing interventions or assessments in reading and writing skills of students in remedial or developmental courses at the postsecondary level or in Job Corps programs. However, very little work has been done that specifically addresses cognition, basic numeracy skills, or English learning with adults.

The Institute recognizes that some researchers – particularly cognitive scientists who have typically conducted their research in laboratory settings – may be unfamiliar with the settings where adult education is offered. A 2002-2003 survey of 1,200 adult education programs in the United States funded under the Adult Education and Family Literacy Act identified five distinct providers: Local Education Agencies (LEAs), Community-Based Organizations (CBOs), community colleges, correctional institutions, and other settings (Tamassia, Lennon, Yamamoto, & Kirsch, 2007). Nationally, LEAs serve the most students (54 percent) with CBOs and community colleges accounting for about an additional 22 percent each. However, there is substantial regional variation in the distribution of settings (e.g., the Eastern region included almost half of all the CBOs, while LEAs were the largest providers in the Southern and Midwestern regions) and in the types of adult education programs offered and attended (e.g., 62 percent of participants in the Western region attended EL classes). A list of all State offices of adult education and their web sites can be found at:

[http://wdcrobcolp01.ed.gov/Programs/EROD/org\\_list.cfm?category\\_cd=DAE](http://wdcrobcolp01.ed.gov/Programs/EROD/org_list.cfm?category_cd=DAE).

The purpose of the Center on Cognition and Adult Literacy is to conduct research on the underlying cognitive processes that contribute to or inhibit reading and/or basic mathematics performance of adult learners and to develop and pilot interventions that support instruction of adult learners in ABE, EL, and/or ASE programs. In addition to its focused program of research, the Center on Cognition and Adult Literacy will conduct supplementary studies and engage in national leadership activities relevant to improving adult literacy.

### **A. Significance of the Focused Program of Research**

Under significance of the project, applicants provide a compelling rationale, justifying why the proposed research is important to conduct. Specifically, applicants should address the following four questions: (1) What is the target population of adult learners, and why should the Center on Cognition and Adult Literacy focus its efforts on this group? (2) What is the theoretical and empirical rationale for the studies examining underlying cognitive processes? (3) What types of interventions have the potential to improve reading and/or math skills of adult learners? (4) What is the overall importance of the proposed research?

#### **a. Adult learner population**

Applicants to the Center on Cognition and Adult Literacy competition must first identify one or more of the following groups of adult learners to be the focus of their research and justify their selection: (a) adults who are learning English and who have limited literacy skills in their primary language; (b) adults participating in adult basic education programs; or (c) adults participating in adult secondary education programs. Proposals will be stronger if they address two of these groups, e.g., adults in ABE programs including both EL and non-EL students, adults in ASE programs including both EL and non-EL students, or adults in EL programs including both ABE and ASE students.

#### **b. Explore underlying cognitive processes**

For its focused program of research, the Center on Cognition and Adult Literacy is required to extend scientific knowledge on the underlying cognitive processes that impede learning in adults. The specific research questions addressed will necessarily depend on the target group of adult learners that the applicant has identified for its focused program of research (e.g., adults with reading and/or math skills below the fourth grade level). For example, for adults with reading skills below the eighth grade but at or above the fourth grade level, the applicant could propose to examine cognitive processes that contribute to or inhibit the development of students' reading skills.

Applicants should clearly describe the theoretical and empirical rationale for the studies designed to examine underlying cognitive processes that may contribute to or inhibit the development of reading and/or mathematics skills of adult learners. These studies should be designed to identify possible targets for intervention.

### **c. Develop and pilot interventions for adult learners**

As part of its focused program of research, the Center on Cognition and Adult Literacy is required to conduct research to develop innovative interventions (e.g., instructional approaches, education technology, curricula) for use in authentic education delivery settings (e.g., classrooms) with the selected population of adult learners, test the interventions' feasibility in authentic education delivery settings, and pilot test the interventions in authentic education delivery settings to obtain evidence of their promise for achieving the intended student academic outcomes. The development of the interventions should draw upon the findings from the Center's and others' research on the underlying cognitive processes of adult learning. The interventions may be instructional approaches that teachers would implement, curricula, adaptive computerized tutoring, and other innovative approaches for instruction of adult learners.

Applicants must describe a potential intervention (e.g., instructional approach) to be developed. The Institute recognizes that specific features or strategies to be incorporated in the proposed instructional intervention are likely to depend on the outcomes of the cognitive research to be conducted by the Center. However, the applicant needs to provide sufficient information for reviewers to evaluate the applicant's capacity for translating cognitive science into appropriate interventions for adult learners. Applicants may, for example, build on existing scientific knowledge of adult learning to propose a potential intervention. In describing the potential intervention, applicants should demonstrate that they understand (a) what types of interventions would be feasible and practical for implementation in different authentic adult education settings, (b) what types of interventions might be powerful enough to substantially enhance the growth trajectories of adult learners beyond rates of growth attained through current practices, and (c) the theory of change underlying interventions hypothesized to provide greater impacts on student learning than current practices. Proposals will be stronger if they consider multiple authentic adult education settings, e.g., classes offered by community colleges and classes offered by community organizations, or classes taught by trained instructors and classes taught by volunteers.

### **d. Overall importance of the proposed program of research**

As described in *Sections 4.A.a* through *4.A.c*, the applicant should describe and justify the selection of a target adult learner population, present the theoretical and empirical rationale for the studies exploring cognitive processes underlying the performance of the target adult learners, and describe a potential intervention based on the application of existing cognitive science to enhance the learning of adult students. All of this information lends support to the applicant's justification for the importance of the proposed evaluation. In addition, applicants should provide a compelling argument for why the proposed focused program of research is important to fund.

By (a) clearly identifying the types of adult learners who will be the target of the proposed intervention, (b) providing a compelling theoretical and empirical rationale for the cognitive research, (c) describing a potential intervention that is grounded in basic research in the cognitive sciences, and (d) justifying the importance of the proposed research program, applicants are addressing the *significance of the focused program of research*.

## **B. Research Plan for the Focused Program of Research**

### **a. Methodological requirements for developing innovative instructional approaches and extending scientific knowledge on underlying cognitive processes**

For the Center on Cognition and Adult Literacy, applicants must propose to conduct a series of studies to develop an innovative instructional approach (or approaches) for improving instruction for adult learners and to extend scientific knowledge on the underlying cognitive processes that impede reading and/or

mathematics performance of adult learners. The Institute recognizes that detailing all of the studies in the series may not be possible, particularly when later experiments depend on the results of earlier experiments in the series. However, applicants must provide sufficient detail for reviewers to judge the quality of the proposed program of research. Applicants may, for example, describe the overall approach of the focused program of research and provide specific details for two or three exemplar studies.

Strong applications will include clear descriptions of (1) the characteristics of adults who will participate in the studies, (2) the procedures for studies of underlying cognitive processes, (3) the procedures for developing the intervention, (4) the research design and procedures (including measures and procedures for collecting and analyzing data) for determining if the intervention functions as intended, and (5) how adult education students' mobility and dropout rates will be addressed in this work. With respect to the development of an intervention, it is helpful if applicants explain (a) how they define "operating as intended" for the proposed intervention, (b) what data they will collect to determine how the intervention is operating, (c) how they will use the data they collect to make further revisions to the intervention, and (d) what criteria they will use to determine if the intervention operates as intended.

The development plan should include the identification or development of two types of measures that could be used by adult education institutions or practitioners to (1) identify students who are appropriate for the intervention and (2) assess student learning upon completion of the intervention. Research has found that many of the measures used to evaluate adult learners may not be appropriate for struggling adult learners (Greenberg, Pae, Morris, Calhoun, & Nanda, 2009) and that several of the assessments most commonly used with struggling adult learners may not reliably predict whether students have the skills necessary to succeed at subsequent levels (Golfin Jordan, Hull, & Ruffin, 2005; Mellard & Anderson, 2007). Thus, the development of a strong intervention should consider measures to identify whether the intervention is appropriate for a given student and to determine whether students who have received the intervention have acquired the intended skills. Applicants should describe what instruments they will use to make these measurements for their intervention. Should none be available, applicants can build the development and validation of such measures (ideally basing them on the findings from the earlier cognitive studies) into their focused research plan.

In strong applications, researchers make clear what needs to be developed, how it will be developed, and the timeline for the research activities.

#### **b. Methodological requirements for evaluating the feasibility of the new instructional approaches**

Applicants must provide a plan for testing the feasibility of implementing the new instructional approaches within authentic education delivery settings. Feasibility of implementation might be addressed, for example, with evidence demonstrating that the intervention can be implemented with fidelity in a few authentic education delivery settings that represent the type of settings (e.g., classrooms) for which the intervention is intended. Feasibility should be demonstrated on a small sample of users (e.g., teachers, students) who are like those for whom the product is intended and should show that they can utilize or implement the intervention in the way that the developer intends the intervention to be implemented. Feasibility studies should include the measures of "operating as intended" that were developed along with the instructional approach and discuss how these will be collected and analyzed. Stronger feasibility plans will address more than one type of setting (e.g., LEAs and CBOs) or more than one type of adult education teacher (e.g., full-time employees and volunteers) if appropriate for the delivery of the new instructional approach.

#### **c. Methodological requirements for a pilot study of the new instructional approaches**

Applicants must provide a plan for pilot testing the new instructional approaches in authentic education delivery settings in order to provide evidence of the promise of the intervention for achieving the intended student academic outcomes. The pilot study is not intended to provide a causal test of the instructional approach. Rather, it is intended to provide data that could be used in support of a

subsequent proposal to evaluate the efficacy of the intervention under the IES Education Research Grants program (CFDA 84.305A). A number of approaches may be used to assess the promise of the intervention. For example, an applicant might propose a small quasi-experimental study incorporating a comparison group with pretest and posttest data. Evidence of the promise of the intervention could also be obtained using single-subject experimental designs.<sup>2</sup> Demonstration of the promise of the intervention does not need to be through a method that provides causal evidence such as a randomized controlled trial or regression discontinuity design (though either can be proposed if they can be made to fit within the Center's resources and timeline). Any design proposed should compare the change in the intended outcomes for the group receiving the instructional approach to the change in outcomes for a comparable group over a comparable period of time. Any design (and its analysis plan) should address the potentially high attrition rates of adult education students.

Applicants should describe the proposed measures to be used in the pilot study (providing technical information on the reliability and validity of the measures) and detail procedures for collecting and coding data. In strong applications, applicants use the theory of change underlying the new instructional approach and make clear how the proposed measures link to the proximal and distal outcomes that the intervention is intended to change. In strong applications, applicants detail procedures for measuring the fidelity of the implementation of the intervention. Examples of measures can be provided in Appendix B of the application. If any measurement development or collection is to be done by another institution, that institution and its detailed plans for this work must be described in the application (it is not acceptable to simply propose using funds to contract with an organization to do this work).

Applicants must include a detailed description of their analysis plan for the data collected during the pilot study.

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<sup>2</sup> Applicants interested in using a single-subject experimental design should refer to the What Works Clearinghouse *Single-Case Design Technical Documentation* ([http://ies.ed.gov/ncee/wwc/pdf/wwc\\_scd.pdf](http://ies.ed.gov/ncee/wwc/pdf/wwc_scd.pdf)).

## **5. TOPIC TWO: NATIONAL RESEARCH AND DEVELOPMENT CENTER ON STATE AND LOCAL POLICY**

The past 30 to 40 years have seen an expanding State and district role in schools' academic practices through enactment of specific State or district policies. State and district policies are now seen as key in the effort to increase student achievement through such actions as creating State and local curricula standards; establishing student, teacher, and school accountability measures; setting teacher training and credentialing requirements; enacting formal induction programs for beginning teachers; and initiating programs to target resources to chronically low-performing schools.

This rising importance of State and district education policies has been accompanied by increasing interest in examining the impacts of these policies and understanding the processes through which they work. The opportunities to study the effects of policies have increased with the greater collection and availability of administrative data (at different levels such as student, teacher, school, district, and State) and the greater willingness of States and districts to take part in evaluatory experiments and quasi-experiments. Research on education policies enables States and districts to judge the effectiveness of policies that they have enacted and to provide information to other States and districts considering similar approaches.

Through the National Research and Development Center on State and Local Education Policy (Policy Research Center), the Institute intends to fund a Center with a focused program of research on current State or district education policies intended to improve student achievement and other education outcomes (e.g., high school graduation rates) in any grades from prekindergarten through Grade 12. The Institute is most interested in applications that demonstrate collaboration between researchers and State or district leaders, which results in a focused program of research that addresses issues and questions of interest to the State or district leaders. In addition to its focused program of research, the Policy Research Center will conduct supplementary studies and engage in national leadership activities relevant to education policy.

### **A. Significance of the Focused Program of Research**

For its focused program of research, the Policy Research Center is required to conduct a focused program of research on specific State or district education policies relevant to improving education outcomes for students in any grades from prekindergarten through Grade 12. To address the *significance of the focused program of research*, applicants should describe the theoretical and empirical rationale for the proposed research, as well as justify the importance of the proposed research for State or district education leaders. Applicants should provide a compelling rationale for why the proposed focused program of research is important to fund.

### **B. Research Plan for the Focused Program of Research**

Applicants should identify specific research questions and/or hypotheses to be addressed. The research methods that are proposed must be appropriate for addressing these proposed questions and/or hypotheses. Applicants should describe their research plan clearly and in sufficient detail for reviewers to understand what the applicants are proposing to undertake and to judge the degree to which following the plan will yield answers to the posed hypotheses or research questions. The research plans should provide evidence that the applicant anticipates and has alternative approaches if difficulties are encountered. As described below, different analytical approaches may be proposed to address the research questions. Regardless of the approach chosen, applicants must provide a detailed research design and demonstrate that the study is powered to detect reasonably expected and minimally important effects.

For work involving secondary data analyses, applicants should describe clearly the data set(s) to be used in the investigation including information on sampling design, sample characteristics, variables to be used, structure of the data set, and ability to ensure access to the data set if the applicant does not already have access to it. The data set should be described in sufficient detail to allow reviewers to be

able to judge whether or not the proposed analyses may be conducted with the data set. If multiple data sets will be linked to conduct analyses, applicants should provide sufficient detail for reviewers to be able to judge the feasibility of the plan. Applicants proposing secondary data analyses must provide sufficient documentation (e.g., letters of agreement) to assure reviewers that they already have access to the data or that access can be obtained and the project can be carried out in a timely fashion.

Applicants may propose to collect original data. The applicant should carefully describe the sample (including inclusion/exclusion criteria), measures (including reliability and validity), and procedures proposed for the data collection. If some measures need to be developed, applicants should describe what will be developed and how it will be developed and, to the extent possible, provide examples of items (examples of items may be included in Appendix B). If measures (e.g., surveys, fidelity measures) are to be developed and/or collected by another institution, that institution must be included in the application, and the measures (e.g., surveys of participants) that will be used as well as the data collection procedures and the timing of the data collection must be described. It is not acceptable to simply propose that grant funds be used to contract with an unspecified organization to develop and/or collect the measures.

For studies examining the impact of specific policies on education outcomes, applicants should describe how potential threats to internal validity would be addressed. For all types of design, including random assignment, applicants should explain how they will document that the intervention and comparison conditions are equivalent at the outset of the study. 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, the applicant should clearly state and present a convincing rationale for the unit of randomization (e.g., students, classroom, teacher, or school). Applicants 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.<sup>3</sup>

Studies using regression discontinuity designs may also provide unbiased estimates of the effects of education interventions. Applicants proposing regression discontinuity designs should explain the appropriateness of the assignment variable (e.g., show there is a true discontinuity and document that no manipulation of the assignment variable has occurred) and include sensitivity analyses to assess the influence of key procedural or analytic decisions on the results.<sup>4</sup>

Applicants may propose a quasi-experimental design (including a regression discontinuity design) rather than a randomized trial when randomization is not possible. Applicants should justify that the proposed design permits drawing causal conclusions about the effect of the intervention on the intended outcomes. Applicants should discuss how selection bias will be minimized or modeled.<sup>5</sup> To this end, the specific assumptions made by the design should be justified. For example, the covariates used in a propensity score match should be shown capable of explaining selection, and the instrumental variable used in an instrumental variable analysis should be shown to be strongly correlated with the independent variable and correlated with the outcome through that independent variable (but not directly correlated with the outcome or indirectly correlated with the outcome through unobserved variables). Applicants should explicitly discuss the threats to internal validity that are not addressed convincingly by the design and how conclusions from the research will be tempered in light of these threats.

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<sup>3</sup> What a randomized control trial must do to meet the What Works Clearinghouse (WWC) evidence standards is described in the WWC Procedures and Standards Handbook (2008) available at <http://ies.ed.gov/ncee/wwc/references/library/>.

<sup>4</sup> What a regression discontinuity design must do to meet the WWC evidence standards is described in Standards for Regression Discontinuity Designs (2010) available at <http://ies.ed.gov/ncee/wwc/references/library/>.

<sup>5</sup> For more information, see Shadish, W. R., Cook, T. D., and Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin Company.

The Institute's interest in the impact of policies goes beyond simple determinations of whether or not something works. The Institute is interested in why policies do or do not achieve the desired effects and the processes through which effects are achieved. In well-designed studies, researchers examine relevant mediating and moderating factors. Observational, survey, or qualitative methodologies are encouraged as a complement to experimental methodologies to assist in the identification of factors that may explain the effectiveness or ineffectiveness of specific policies.

In all instances, the research plan must include detailed descriptions of data analysis procedures. Data analytic plans must have sufficient detail to permit reviewers to judge the appropriateness and adequacy of the plan for addressing the hypotheses or research questions. Where analyses of existing or new datasets are included, strong applications will include an explicit discussion of how exclusion from testing, or missing data, will be handled within the statistical analyses.

## **6. GENERAL REQUIREMENTS OF THE PROPOSED RESEARCH**

### **A. Basic Requirements**

#### **a. Resubmissions**

Applicants who intend to revise and resubmit a proposal that was submitted to one of the Institute's previous competitions but that was not funded must indicate on the application form that their FY 2012 proposal is a revised proposal. Their prior reviews will be sent to this year's reviewers along with their proposal. Applicants should indicate the revisions that were made to the proposal on the basis of the prior reviews using no more than 3 pages of Appendix A.

Applicants who have submitted a somewhat similar proposal in the past but are submitting the current proposal as a new proposal must indicate on the application form that their FY 2012 proposal is a new proposal. Applicants should provide a rationale explaining why the current proposal should be considered to be a "new" proposal rather than a "revised" proposal at the beginning of Appendix A using no more than 3 pages. Without such an explanation, if the Institute determines that the current proposal is very similar to a previously unfunded proposal, the Institute may send the reviews of the prior unfunded proposal to this year's reviewers along with the current proposal.

#### **b. Applying to multiple competitions or topics**

Applicants may submit proposals to more than one of the Institute's competitions in FY 2012. In addition, within a particular competition, applicants may submit multiple proposals. However, applicants may submit a given proposal only once (i.e., applicants may not submit the same proposal or similar proposals to multiple competitions). If the Institute determines prior to panel review that an applicant has submitted the same proposal or similar proposals within or across competitions and the proposal is judged to be compliant and responsive to the submission rules and requirements described in the Request for Applications, the Institute will select one version of the application to be reviewed by the appropriate scientific review panel. If the Institute determines after panel review that an applicant has submitted the same proposal or similar proposals within or across competitions and if the proposal is determined to be worthy of funding, the Institute will select the competition under which the proposal will be funded.

### **B. Requirements for the Focused Program of Research**

The Institute intends for the work of the R&D Center to include a focused program of research that ideally will result in solutions or answers to specific education problems at the end of 5 years. The Institute expects the *focused program of research* to comprise about 50 to 75 percent of a Center's activities depending on the cost and effort required to carry out the focused program of research.

For the FY 2012 R&D Center competition, the Institute expects applicants to propose a focused program of research that consists of a set of tightly linked studies that build on each other and together accomplish the goals specified under *Section 4 Requirements for the National Research and Development Center on Cognition and Adult Literacy* or *Section 5 Requirements for the National Research and*

*Development Center on State and Local Policy.* The Institute strongly discourages applications that propose a model in which multiple investigators each conduct separate studies that are only loosely coordinated around the topic.

Although the Centers have much broader functions than conducting a focused program of research, the research program is the only portion of the activities of a Center that can be well-specified in advance and thus can provide a fair basis for comparing and evaluating applications for funding. Consequently, the majority of the application should be a detailed description of the focused program of research.

#### **a. Significance of the focused program of research**

Because review panels typically read applications across a number of research programs, it is most helpful if in the first sentence of the project narrative, the applicant identifies the research program to which the application has been submitted (e.g., "This is an application for a National Research and Development Center on Cognition and Adult Literacy").

The rationale for the significance of the focused program of research must address specific requirements detailed in *Section 4.A* or *Section 5.A Significance of the Focused Program of Research*.

#### **b. Research plan for the focused program of research**

The most important consideration in the competitive review of proposals will be the applicant's articulation of the focused program of research. Applications should include well-specified objectives, a detailed research methods and data analysis plan, a plan for coordinating the work of the cooperating scientists, a timetable for accomplishing the research, and the specific outcomes of the program of research.

The methodological requirements for applications are specified in *Section 4.B* or *Section 5.B Research Plan for the Focused Program of Research*.

#### **c. Timeline**

Along with the description of the focused program of research, applicants should include a clear timeline for the activities in their focused program of research. (The timeline may be included in Appendix A.)

### **C. Requirements for Other Center Activities**

#### **a. Requirements for supplemental research projects**

As part of the Center activities, applicants are expected to conduct smaller, supplemental research projects that speak to other issues that are important within the context of the broad topic of the Center. These projects are typically ones that can be completed within 9 to 12 months. Because these studies are expected to be completed in a relatively short period, typical supplemental studies involve secondary analyses of longitudinal data sets.

Because the Center will work cooperatively with the Institute to select and design supplemental studies to respond to pressing policy and practice needs within the topic covered by the Center, the Institute does not expect applicants to provide highly detailed research plans for these studies in the application. **The Institute expects applicants to devote no more than two or three paragraphs to the description of each supplemental study.** The applicant should, however, document capacity to conduct such studies (e.g., knowledge of the field and research experience of key personnel) and provide **two** examples of supplemental studies the applicant believes might be useful to undertake, including a short rationale explaining the need for the proposed study and a short description of the type of research approach that would be used. Applicants should bear in mind that, although this section of the proposal does not need to be long, capacity for conducting supplemental research projects will carry weight in the scoring of the application.

## **b. Requirements for national leadership activities**

As part of the Center activities, applicants are expected to provide national leadership within the Center's topic area by developing position papers, hosting meetings, and engaging in dialogue with researchers, policymakers, and practitioners to identify promising areas of research, development, and dissemination for the field.

Because the Center will work cooperatively with the Institute in the development and planning of such activities, the Institute does not expect applicants to provide highly detailed plans for the leadership activities. Applicants should explain why the proposed Center staff is qualified to fulfill this leadership role if awarded a Center and describe at least two examples of the types of activities the applicant believes might be useful to undertake, including a short rationale justifying the need for the proposed activity and a description of the applicant's capacity for conducting such projects. In addition, applicants should identify appropriate organizations and agencies with which they might work in carrying out leadership activities. Although this section of the application does not need to be long, applicants should bear in mind that capacity for carrying out leadership and national activities will carry weight in the scoring of the application.

## **D. Management and Institutional Resources**

The Institute anticipates that the focused program of research, as well as the supplemental studies, and national leadership activities will require the coordination of multiple scientists and other partners. Applicants should describe plans and procedures for the overall management of the Center. These plans should include details of procedures for coordinating with schools and districts or other education delivery settings involved in the projects of the Center.

Competitive applicants will have access to institutional resources that adequately support research activities and access to schools or other education delivery settings in which to conduct the research.

When the proposed focus program of research includes conducting research activities in schools, applicants should document that they have the capacity and experience to obtain such cooperation and to describe the steps they have taken or will take to obtain it. If the plans for the **first year** of grant activities include substantial work to be conducted in schools or other education delivery settings, strong applications will include documentation of the availability and cooperation of the schools or other education delivery settings that will be required to carry out that work via a letter of support from the education organization(s).

An applicant may involve curriculum or assessment developers or distributors (*including for-profit entities*) in the project, from having the developers as full partners in its proposal to using off-the-shelf curriculum or assessment materials without involvement of the developer or publisher. However, involvement of the developer or distributor should not jeopardize the objectivity of the research. Strong applications will carefully describe the role, if any, of the developer/distributor in the project. Applicants should describe how objectivity in the research would be maintained.

## **E. Personnel**

Competitive applicants will have leadership and staff that collectively demonstrate (a) expertise in the content areas relevant to the Center topic (e.g., adult cognition and instruction of adult learners), (b) the methodological expertise to carry out the proposed projects, (c) sufficient experience working with education delivery settings to carry out the proposed projects, and (d) experience that is relevant to national leadership activities. In the project narrative, applicants should briefly describe the qualifications, roles, responsibilities, and percent of time to be devoted to the project for key personnel.

## **PART IV GENERAL SUBMISSION AND REVIEW INFORMATION**

### **7. MECHANISM OF SUPPORT**

The Institute intends to award cooperative agreements pursuant to this request for applications. The maximum length of the award period is five years.

### **8. FUNDING AVAILABLE**

Typical awards will be in the range of \$1,000,000 to \$2,000,000 (total cost = direct + indirect) per year for 5 years. The size of the award depends on the scope of the project. The maximum duration of the award is 5 years and the maximum award for a 5-year project is \$10,000,000 (total cost).

The Institute expects the *focused program of research* to comprise about 50 to 75 percent of a 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 supplemental studies, leadership activities, and any administrative activities not included in the focused program of research.

Although the plans of the Institute include the Education Research and Development Center program described in this announcement, 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 at least one Center under each topic. However, because the Institute is committed to funding only high quality work, the Institute will make an award for a Center only if at least one application is deemed meritorious under peer review.

### **9. 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.

### **10. SPECIAL REQUIREMENTS**

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.

Applicants must budget for one meeting each year (for up to 3 days) in Washington, D.C. with other grantees and Institute staff. At least one project representative must attend the meeting.

Research applicants may collaborate with, or be, for-profit entities that develop, distribute, or otherwise market products or services that can be used as interventions or components of interventions in the proposed research activities. Involvement of the developer or distributor must not jeopardize the objectivity of the evaluation.

Applicants may propose studies that piggyback onto an existing study (i.e., requires 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 grant to conduct the new project.

If an application is being considered for funding based on the technical merit scores from the scientific peer review panel and the research relies on access to secondary data sets, the applicant will need to

provide documentation that the applicant has access to the necessary data sets in order to receive a grant. This means that if an applicant does not have permission to use the proposed data sets at the time of application, the applicant will need to provide documentation to the Institute from the entity controlling the data set(s) indicating that the applicant has permission to use the data for the proposed research for the time period discussed in the proposal before the grant will be awarded. Similarly, applicants who had permission to use a proposed data set prior to the application may be asked to provide documentation that they continue to have permission to use the data set to conduct the proposed research during the project period.

If an application is being considered for funding based on the technical merit scores from the scientific peer review panel and the research relies on access to education delivery settings (e.g., districts and schools), the applicant will need to provide documentation that the applicant has access to the necessary districts and schools in order to receive the grant. This means that if an applicant does not have permission to conduct the proposed project in the necessary number of districts and schools at the time of application, the applicant will need to provide documentation to the Institute indicating that the applicant has successfully recruited the necessary number of districts and schools for the proposed research before the full first-year costs will be awarded. Similarly, applicants who recruited sufficient numbers of districts and schools prior to the application may be asked to provide documentation that the districts and schools originally recruited for the application continue to be willing partners in the research. The Institute strongly advises applicants to establish a written agreement among all key collaborators and their institutions (e.g., Principal and Co-Principal Investigators) regarding roles, responsibilities, access to data, publication rights, and decision-making procedures within three months of receipt of an award.

Through the terms of the cooperative agreement, grantees will work with the Institute to plan activities related to supplemental research and leadership activities.

## **11. DESIGNATION OF PRINCIPAL INVESTIGATOR**

The applicant institution is responsible for identifying 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. An applicant institution may elect to designate more than one Principal Investigator. In so doing, the applicant institution identifies them as individuals who share the authority and responsibility for leading and directing the research Center 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 Center. The role of this person is primarily for communication purposes on the scientific and related budgetary aspects of the Center and should be listed as the Principal Investigator. All other Principal Investigators should be listed as Co-Principal Investigators.

## **12. LETTER OF INTENT**

The Institute asks all applicants to submit a letter of intent by 4:30 p.m. Washington D.C. time on the relevant due date for the competition to which they plan to submit. The information in the Letters of Intent enables Institute staff to identify the expertise needed for the scientific peer review panels and secure sufficient reviewers to handle the anticipated number of applications. The Institute encourages all interested applicants to submit a letter of intent, even if they think that they 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.

### **A. Content**

The letter of intent should include:

- a. Descriptive title
- b. Center topic to which the applicant intends to submit a proposal
- c. Brief description of the proposed focused program of research

- d. Name, institutional affiliation, address, telephone number, and e-mail address of the Principal Investigator and any co-Principal Investigators
- e. Name and institutional affiliation of any key collaborators and contractors
- f. Duration of the proposed project
- g. Estimated total budget request (the estimate need only be a rough approximation).

## **B. Format and Page Limitation**

Fields are provided in the letter of intent for each of the content areas described above. The project description should be single-spaced and should not exceed one page (about 3,500 characters).

## **13. MANDATORY SUBMISSION OF ELECTRONIC APPLICATIONS**

Grant applications must be submitted electronically through the Internet using the software provided on the Grants.gov Web site: <http://www.grants.gov/>. Applicants must follow the application procedures and submission requirements described in the Institute's Grants.gov Application Submission Guide and the instructions in the User Guides provided by Grants.gov.

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 Education Research and Development Center Program (CFDA Number 84.305C) competitions 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.

## **14. APPLICATION INSTRUCTIONS AND APPLICATION PACKAGE**

### **A. Documents Needed to Prepare Applications**

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

- The *Request for Applications* for the Education Research and Development Center Program (CFDA 84.305C) describes the substantive requirements for a research application.

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

- 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/resources.jsp>

- The *Application Package* provides all of the forms that need to be completed and submitted. 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). The applicant must follow the directions in *Section C* below 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 Available by

July 21, 2011

## **C. Download Correct Application Package**

### **a. CFDA number**

Applicants must first search by the CFDA number for each IES Request for Applications *without* the alpha suffix to obtain the correct downloadable Application Package. For the Education Research and Development Center Program Request for Applications, applicants must search on: **CFDA 84.305**.

### **b. Education Research and Development Center Application Package**

The Grants.gov search on CFDA 84.305 will yield more than one Application Package. For the Education Research and Development Center Program Request for Applications, applicants must download the package for the appropriate deadline marked:

<b>Application Package:</b>	<b>Education Research and Development Center Program CFDA 84.305C</b>
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In order for the application to be submitted to the correct grant competition, applicants must download the Application Package that is designated for the grant competition and competition deadline. Using a different Application Package, even if that package is for an Institute competition, will result in the application being submitted to the wrong competition. Applications submitted to the wrong competition may not be reviewed for the Education Research and Development Center Program competition.

## **15. SUBMISSION PROCESS AND DEADLINE**

Applications must be **submitted electronically and received by 4:30:00 p.m., Washington, D.C. time** on the application deadline date, using the standard forms in the Application Package and the instructions provided on the Grants.gov web site.

Potential applicants should check the Grants.gov web site for information about the electronic submission procedures that must be followed and the software that will be required.

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

#### **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.

- 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.
- Type size must yield no more than 6 lines of type within a vertical inch.

Applicants 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. Small type size makes it difficult for reviewers to read the application; consequently, the use of small type will be grounds for the Institute to return the application without peer review.

Adherence to type size and line spacing requirements is necessary so that no applicant will have an unfair advantage by using small type or by providing more text in their applications. *Note, these requirements apply to the PDF file as submitted.* 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**

Applicants are encouraged to use black and white in graphs, diagrams, tables, and charts. If color is used, the applicant must ensure that the material reproduces well when photocopied in black and white.

### **C. Project Summary/Abstract**

#### **a. Submission**

The Center project summary/abstract will be submitted 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 Center project summary/abstract should include:

- (1) Title of the proposed Center
- (2) The topic under which the applicant is applying (i.e., National Education Research and Development Center on Cognition and Adult Literacy)
- (3) Brief description of the focused program of research
- (4) A list of the key Center personnel

### **D. Project Narrative**

#### **a. Submission**

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

#### **b. Page limitations and format requirements**

The Center 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 one-page summary/abstract, the appendices, research on human subjects information, bibliography and references cited, biographical sketches of senior/key personnel, narrative budget justification, subaward budget information, or certifications and assurances. If the narrative for the Center project is determined to exceed the 35 single-spaced page limit, the Institute will remove any pages after the thirty-fifth page of the narrative.

Reviewers are able to conduct the highest quality review when applications are concise and easy to read, 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 Center in the project narrative, applicants 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**

To be compliant with the requirements of the Request for Applications, the Center project narrative must include five sections: (a) Significance of the Focused Program of Research, (b) Research Plan for the Focused Program of Research, (c) Other Center Activities, (d) Management and Institutional Resources, and (e) Personnel. Information to be included in each of these sections is detailed in *Part III Requirements of the Proposed Research*. Incorporating the requirements outlined in this section provides the majority of the information on which reviewers will evaluate the proposal.

## **E. Appendix A (Optional)**

### **a. Submission**

Appendix A should be included at the end of the Project Narrative and submitted 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 16.B. General Format Requirements*.

### **c. Content**

The purpose of Appendix A is to allow the applicant to include any figures, charts, or tables that supplement the research text, examples of measures to be used in the project. In addition, in the case of a resubmission, the applicant may use up to 3 pages of the appendix to describe the ways in which the revised proposal is responsive to prior reviewer feedback. Similarly, applicants who have submitted a somewhat similar proposal in the past but are submitting the current proposal as a new proposal may use up to 3 pages in Appendix A to provide a rationale explaining why the current proposal should be considered to be a "new" proposal rather than a "revised" proposal. These are the only materials that may be included in Appendix A; all other materials will be removed prior to review of the application. Narrative text related to any aspect of the project (e.g., descriptions of the proposed sample, the design of the study, or previous research conducted by the applicant) must be included in the 35-page research narrative.

## **F. Appendix B (Optional)**

### **a. Submission**

Appendix B should be included at the end of the Project Narrative, following Appendix A, and submitted 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 16.B. General Format Requirements*.

### **c. Content**

The purpose of Appendix B is to allow applicants to include examples of curriculum materials, assessment items, computer screens, or other materials used in an intervention or assessment that is pertinent to the proposed project. These are the only materials that may be included in Appendix B; all other materials will be removed prior to review of the application. Narrative text related to the intervention or assessment (e.g., descriptions of research that supports the use of the revised curriculum components, the theoretical rationale for specific types of assessment items, or details regarding the implementation or use of the intervention) must be included in the 35-page Center project narrative.

## **G. Appendix C (Optional)**

### **a. Submission**

Appendix C should be included at the end of the Center Project Narrative, following Appendix B (or following Appendix A if no Appendix B is included), and submitted 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, consultants, sources of data). Applicants must ensure that the letters reproduce well so that reviewers can easily read them. Applicants should not reduce the size of the letters.

### **c. Content**

The purpose of Appendix C is to allow the applicant to include letters of agreement from partners (e.g., schools and districts), organizations holding data to be used in the project, 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, resources, and/or data to the research project that will be required if the application is funded. The most common reason for projects to fail is loss of participating schools and districts.

## **H. Bibliography and References Cited**

### **a. Submission**

The section will be submitted as a .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 16.B. General Format Requirements*.

### **c. Content**

Applicants 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 research narrative.

## **17. 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. Following receipt, each application will be reviewed 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.

## **18. PEER REVIEW PROCESS**

Applications that are compliant and responsive to this request will be evaluated for scientific and technical merit. Reviews will be 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 application will be 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, an average overall score for each application will be calculated and a preliminary rank order of applications will be prepared 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 proposal that he or she believes merits full panel review but would not have been included in the full panel meeting based on its preliminary rank order.

## **19. REVIEW CRITERIA FOR SCIENTIFIC MERIT**

The purpose of Institute-supported research is to contribute to the solution of 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. Reviewers for all applications will be expected 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 in *Part III Requirements of the Proposed Research*.

### **A. Significance of the Focused Program of Research**

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 for the Focused Program of Research**

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

### **C. Plans for Other Center Activities**

Do the content of the examples of proposed supplemental studies and leadership activities and the description of the applicant's capacity to conduct such projects demonstrate that the applicant has the ideas, experience, and capability to successfully carry-out such projects in cooperation with the Institute?

### **D. Management and Institutional Resources**

Do the plans and procedures for the overall management of the Center indicate that the applicant has the capacity to efficiently and successfully complete the proposed research, dissemination, and leadership activities? 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 proposed Center activities?

### **E. Personnel**

Does the description of the personnel make it apparent that the Principal Investigator, project director, and other key personnel possess the appropriate training and experience and will commit sufficient time to competently implement the proposed research?

## **20. RECEIPT AND START DATE SCHEDULE**

### **A. Letter of Intent Receipt Date**

July 21, 2011

### **B. Application Deadline Date**

September 22, 2011

### **C. Earliest Anticipated Start Date**

July 1, 2012

### **D. Latest Possible Start Date**

September 1, 2012

## **21. 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
- Availability of funds

## **22. INQUIRIES MAY BE SENT TO**

### **A. National R&D Center on Cognition and Adult Literacy**

Dr. Meredith Larson  
Institute of Education Sciences  
555 New Jersey Avenue, NW  
Washington, D.C. 20208

Email: Meredith.Larson@ed.gov  
Telephone: (202) 219-2025

### **B. National R&D Center on State and Local Education Policy**

Dr. Allen Ruby  
Institute of Education Sciences  
555 New Jersey Avenue, NW  
Washington, D.C. 20208

Email: Allen.Ruby@ed.gov  
Telephone: (202) 219-1591

## **23. 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.

## **24. 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(a)-(c), 75.219, 75.220, 75.221, 75.222, and 75.230.

## **25. REFERENCES**

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