IES Grant Writing Workshop

Institute of Education Sciences
U.S. Department of Education
• Getting Started
  – Identify Appropriate Research Program
  – Identify Appropriate Topic and Goal

• Preparing the Proposal

• Preparing the Project Narrative

• Reviewers’ Perspectives
• Submitting a Proposal
• What Happens Next?
• Final Reminders
Getting Started
Getting Started

- Request for Applications
- IES Grants.gov Application Submission Guide
- Application Package
Finding Requests for Applications

FY 2010 Requests for Applications & the IES Grants.gov Application Submission Guide are available on:

http://ies.ed.gov/funding

For future RFAs, sign up for the IES Newsflash:

http://ies.ed.gov/newsflash/
What’s New

Comparative Indicators of Education in the United States and Other G-8 Countries: 2006 (Mar 25)
This report describes how the education system in the United States compares with education systems in the other G-8 countries—Canada, France, Germany, Italy, Japan, the Russian Federation, and the United Kingdom.

Destination Math Report Released (Mar 24)
Destination Math, a series of computer-based curricula featuring sequenced, prescriptive, step-by-step instruction, is the subject of a new Middle School Math report.

IES has released the FY2010 Request For Applications (RFAs) for NCSEr research and research training grant competitions (Mar 23)
IES has released the FY2010 Request For Applications (RFAs) for NCSEr research and research training grant competitions.
The three NCSEr RFAs are: Special Education Research Grants (84.324A); Special Education Postdoctoral Research Training Program (84.324B); and Special Education Research and Development Center Program (84.324C). The RFAs are available at http://ies.ed.gov/funding/.

IES has released the FY2010 Request For Applications (RFAs) for NCER research and research training grant competitions (Mar 23)
IES has released the FY2010 Request For Applications (RFAs) for NCER research and research training grant competitions.
The five NCER RFAs are: Education Research Grants (84.305A); Postdoctoral Education Research Training Program in the Education Sciences (84.305B); Education Research and Development Center Program (84.305C); Statistical and Research Methodology in Education (84.305D); and Evaluation of State and Local Education Programs and Policies (84.305E). The RFAs are available at http://ies.ed.gov/funding/.

IES has released the FY2010 Request For Applications (RFAs) for five NCER and three NCSEr research and research training grant competitions (Mar 23)
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Welcome to IES
The Education Sciences Reform Act of 2002 (P.L. 107-207) established the Institute of Education Sciences (IES) within the U.S. Department of Education. IES brings rigorous and relevant research, evaluation and statistics to our nation’s education system.

http://ies.ed.gov
Research & Research Training
Grant Programs

• Education and Special Education Research Grant Programs
• Postdoctoral Research Training Grant Programs
• National Research and Development Centers
• Statistical and Research Methodology in Education
• Evaluation of State and Local Education Programs and Policies
• Reading for Understanding Research Initiative
Finding Application Packages

• FY 2010 Application Packages for June are available on www.grants.gov

• October Application Package will be available on August 3, 2009
Determine Whether You are Eligible to Apply

• Applicants that have the ability and capacity to conduct scientifically valid research

• Include, but are not limited to, non-profit and for-profit organizations, and public and private agencies and institutions, such as colleges and universities
Identify Appropriate Grant Program

Are You Seeking Research or Training Funding?
If Seeking to Establish a Training Program:

- Postdoctoral Education Research Training Program in the Education Sciences (84.305B)

- Postdoctoral Research Training Program in Special Education (84.324B)
If Seeking Research Funding:

• Education and Special Education Research Grant Programs
• National Research and Development Centers
• Statistical and Research Methodology in Education
• Evaluation of State and Local Education Programs and Polices
• Reading for Understanding Research Initiative
Identify Appropriate Grant Program

• Read the Request for Applications

• Check the announced topics

• Look at the abstracts of projects funded under a research topic
Education Research Grant Program
(84.305A)

Special Education Research Grant Program
(84.324A)
NCER Standing Research Programs

• Reading and Writing
• Mathematics and Science Education
• Cognition and Student Learning
• Social and Behavioral Context for Academic Learning
• Teacher Quality
• Education Leadership
• Education Policy, Finance, and Systems
NCER Standing Research Programs

- Early Childhood Programs and Policies
- Middle and High School Reform
- Interventions for Struggling Adolescent and Adult Readers and Writers
- English Language Learners
- Postsecondary Education
- Education Technology
NCSER Standing Research Programs

- Early Intervention and Early Childhood Special Education
- Reading, Writing, and Language Development
- Mathematics and Science Education
- Social and Behavioral Outcomes to Support Learning
- Transition Outcomes for Special Education Secondary Students
NCSER Standing Research Programs

- Cognition and Student Learning in Special Education
- Teacher Quality
- Related Services
- Special Education Policy, Finance, and Systems
- Autism Spectrum Disorders
Which Goal is Right for You?
Which Goal is Right for You?

G1  Explore programs, practices, or malleable factors associated with better student outcomes
G2  Develop new education interventions
G3  Evaluate the efficacy of interventions
G4  Evaluate the impact of interventions implemented at scale
G5  Develop and/or validate measurement tools
Goal One: Exploration

Explore education programs, practices, and malleable factors that are associated with better student learning and achievement outcomes

– Secondary analyses of longitudinal datasets
– Small descriptive studies
– Meta-analyses
Goal One: Exploration

- $100,000 to $400,000 per year total cost (direct + indirect)

- 2 to 4 years
Goal Two: Development and Innovation

• Develop new interventions (e.g., instructional practices, curricula, teacher professional development)

• Demonstrate the feasibility of the intervention for implementation in an authentic education delivery setting

• Collect pilot data on promise of intervention to achieve intended outcomes
Goal Two: Development and Innovation

• $150,000 to $500,000 per year (total cost)

• 1 to 3 years
Goal Three: Efficacy and Replication

- Test efficacy of fully developed interventions
- Efficacy = the degree to which an intervention has a net positive impact on the outcomes of interest relative to the program/practice to which it is being compared
Goal Three: Efficacy and Replication

- $250,000 to $750,00 per year (total cost)
- Up to 4 years
Goal Four: Scale-up Evaluations

• Test the impact of interventions implemented at scale

• As implemented by practitioners (i.e., not by researchers)

• Studies using randomized assignment to treatment and comparison conditions are strongly preferred
Goal Four: Scale-up Evaluations

- $500,000 to $1,200,000 per year (total cost)
- Up to 5 years
Goal Five: Measurement

• Develop and validate assessments or other measurement tools

• $150,000 to $400,000 per year (total cost)

• Up to 4 years
Which Goal is Right for You?

• Read the Request for Applications

• Start to think about which goal is appropriate for the question(s) you want to answer
What if My Program is “Between” Goals?

PICK ONE!

– Read the Request for Applications
– Don’t just go for the largest amount of money.
– Break the project down into smaller pieces.
– Aim for a well-crafted project that will deliver what it promises….
Other Research Grant Programs
National Research and Development Centers

TOPIC 1: Scaling Up Effective Schools

TOPIC 2: Mathematics Standards and Assessment

TOPIC 3: Cognition and Mathematics Instruction
R&D Center on Scaling Up Effective Schools

- Identify effective schools and practices
- Develop transferable practices and a system to support the transfer of practices
- Implement identified practices in new schools
- Evaluate transfer of practices and impacts on achievement
R&D Center on Mathematics Standards and Assessment

• Establish a mathematics standards and assessment framework

• Conduct research on assessment construction and methods for setting standards
R&D Center on Cognition & Mathematics Instruction

- Identify existing mathematics curriculum that will be revised
- Rationale for redesign of instructional approach to chosen mathematics curriculum
- Revise chosen curriculum using revise-test-redesign-test process
- Evaluate effect of revised curriculum
National R&D Centers in Special Education

• TOPIC 1: Assessment and Accountability

• TOPIC 2: Improving Mathematics Instruction for Students with Mathematics Difficulties
R&D Center on Assessment and Accountability

• Examine the natural developmental progress in achievement by students with disabilities

• Develop and test various approaches for measuring growth for students with disabilities intended for use by school systems for accountability purposes.
R&D Center on Improving Mathematics Instruction for Students with Mathematics Difficulties

• Explore underlying cognitive processes that impede mathematics performance in students with mathematics difficulties for the purpose of identifying possible targets for intervention

• Develop and test innovative instructional approaches or other interventions for students with mathematics difficulties based on underlying cognitive principles
Funding available for R&D Centers

- $1,000,000 to $2,000,000 per year (total cost = direct + indirect)

- 5 years
Statistical and Research Methodology in Education

- Research projects intended to expand and improve the methodological and statistical tools available for education researchers.

- $75,000 to $400,000 (total cost = direct + indirect costs) per year for up to 3 years.
Evaluation of State and Local Education Programs and Policies

• Support for rigorous evaluations of education programs or policies that are implemented by state or local education agencies

• Typical awards for projects will be $500,000 to $1,200,000 (total cost = direct + indirect costs) per year for a maximum of 5 years
Reading for Understanding Research Initiative

• Support applied basic research to:
  – (a) identify underlying processes that are malleable and potential targets for intervention,
  – (b) develop and evaluate interventions to improve reading comprehension for students in prekindergarten through Grade 12, and
  – (c) develop and validate assessments of reading comprehension.
Reading for Understanding Research Initiative: Build an R&D Network

• Core Teams
  – Focus on a specific age span
  – Understand underlying cognitive processes and develop and evaluate efficacy of interventions

• Assessment Team
  – Focus on developing assessments to measure students' progress in acquiring reading comprehension skills
Reading for Understanding Research Initiative

• Core Teams
  – $2,000,000 to $4,000,000 (total cost = direct + indirect costs) each per year for a maximum of 5 years

• Assessment Team
  – $2,000,000 to $3,000,000 (total cost = direct + indirect costs) per year for a maximum of 5 years
Before Beginning to Write

• Revisit your research question(s)

• Consider **who** needs to be on your team

• Consider what **resources** you need to have in order to complete the proposed study
Personnel Considerations

• Think about the type of expertise that is needed to carry-out the project
Build a Good Team

• Consider Goal and/or RFA requirements
• Consider training and experience
• Consider time needed to competently implement the proposed research
• Things to consider for junior researchers or those without a track record of large projects and grants
Things to Consider

• Challenge – convince reviewers that you (and your team) have the skills and experience to implement well what you have proposed
• Develop a team
• Demonstrate productivity
Next Steps

• Read appropriate Request for Applications closely one more time and confirm that your idea fits the requirements for a specific Topic (e.g., Read/Write) and Goal.

• Then, contact the appropriate program officer and discuss your project with him or her.
Recap

• Select RFA
• Select Topic within RFA
• Select Goal within Topic
• Begin to identify Key Personnel
• Contact NCER or NCSER program officer(s)
Preparing the Application

(Complete all components)
Preparing the Application

• SF 424 (R&R) (Cover Sheet)
• Research and Related Budget (Total Federal and Non-Federal) form
• Project Summary/Abstract
• Contents of the Application
Preparing the Application:

Contents

• Project Narrative
• Bibliography and References Cited
• Biographical Sketches of Key Project Personnel
• Narrative Budget Justification
• Subaward Budgets
Preparing the Application: Contents

• Appendix A (letters of agreement; tables; figures)
• Appendix B (curriculum materials)
• Additional forms for applicants selected for funding
Preparing the Application:
Creating a Budget

- Personnel
- Fringe Benefits
- Travel
- Equipment

- Supplies
- Contractual
- Other
- Indirect Costs
Preparing the Project Narrative
Project Narrative

• Significance
• Research Plan
• Personnel
• Resources
Significance

• Read the RFA

• Information required to address significance of project depends on the Research Goal
Research Plan

• Read the RFA

• Information required of the research plan depends on the Research Goal
Designing Projects Under Each Goal: Research Plan
Designing Exploration Projects

Secondary Data

• Choose a pre-existing dataset (local, district, state, national)
• Explain characteristics of dataset well
• Provide sufficient detail as to the statistical and analytic plans you will use to draw conclusions
• You may propose to collect additional data
Designing Exploration Projects

Primary Data

- Clearly describe the sample
- Explain the measures and how the data are coded in sufficient detail so that the relation between measures and hypotheses are clear
- Provide detailed statistical and analytic plans
Designing Exploration Projects

Meta-analysis

• Clearly describe:
  – Criteria for including studies and rationale
  – Search procedures
  – Coding scheme and procedures for extracting data
  – Procedures for ensuring reliability of coding

• Demonstrate sufficient numbers of studies are available

• Provide detailed statistical and analytic plans including defining effect size statistics
Designing

Development and Innovation Projects
FY 2010 IES
Development and Innovation Projects

• End product is a fully developed intervention
• Pilot data on the feasibility of implementing the intervention in schools
• Pilot data on the promise of the intervention for generating desired outcomes
Why Develop This Intervention?

- Context for the proposed intervention
  - Describe attributes of existing practice
  - Specify shortcomings of existing practice
  - Clarify the problem
Why Develop This Intervention?

• Describe the proposed intervention
  – What are the components or features of intervention?
  – Who will implement or use it?
  – How will it be used?

• Practical importance of the proposed intervention
Why Develop This Intervention?

- Theory of change
  - What is the causal chain of events that leads from the implementation of the intervention to the desired outcome?

- Rationale for theory of change
  - Theoretical and empirical justification
  - How does the proposed intervention address the shortcomings of current practice?
Development (Research) Plan

- What will be developed?
- How will it be developed?
- How will the intervention (components) be tested to see if it operates as intended?
Operating as Intended

- Define “operating as intended”
  - Criteria to determine if intervention operates as intended
  - Correspondence with theory of change
Operating as Intended

• What data will be collected to determine how the intervention is operating?
  – Often involves collection of process data (e.g., observation of teacher implementing a lesson)
  – Feedback from users
  – Specify how data will be coded (i.e., what are you looking for?)
Recap of “Operating as Intended”

• Define “operating as intended”
• What data will be collected to determine how the intervention is operating?
• How will the data be used to revise the intervention, if needed?
Iterations???

- Number of iterations depends on the complexity of the intervention and its implementation
Feasibility of Intervention

• Demonstrate that intervention can be implemented with fidelity
  – In settings that represent the type of settings for which the intervention is intended
  – By users who are like those for whom the product is intended
Promise of the Intervention

• Does performance on outcome measures progress in the appropriate direction?
• Is implementation of intervention associated with changes in activities and behaviors that are consistent with the theory of change?
Designing Efficacy and Replication Projects

• Goal is to determine whether or not fully-developed interventions – programs, practices, policies – are effective
  – Under specified conditions (e.g., urban schools with high teacher turnover rate)
  – With specific types of students (e.g., students with reading disabilities).
Designing Efficacy and Replication Projects

• Describe what the components of the intervention are.

• Describe how the intervention differs from what is typically offered in education settings.

• Define your sample well.
Designing Efficacy and Replication Projects

- Prefer use of random assignment.
- Decide level of randomization (student, teacher, school).
- Ensure that level of randomization matches level of analysis.
Designing Efficacy and Replication Projects

• Use power analysis to determine number of students, teachers, schools needed to draw conclusions about impact.
• Include standardized measures of student achievement.
• Attend to fidelity of implementation.
Designing Scale-up Evaluations

• Does this intervention produce a net positive increase in student learning and achievement relative to the variety of products or practices that are currently available and utilized by schools?
Designing Scale-up Evaluations

• All of the methodological requirements for Efficacy and Replication projects

• Implementation occurs at scale and under typical conditions
Designing Scale-up Evaluations

Choosing Outcome Measures

– Do they map well onto your theoretical questions?

– Are you using standardized achievement tests?

– Have you included proximal measures?

– Who will administer them?

– Did you budget to buy them?
Designing Measurement Projects

• Provide strong theoretical rationale for development of new measurement tool.
• Justify the need for this new tool.
• Detail the proposed procedures for developing the assessment instrument.
• Describe the research plans for determining the validity and reliability of the instrument.
Designing Measurement Projects

• Describe the characteristics and size of samples to be used in each study.
• Explain procedures for collecting data.
• Describe additional measures to be used to determine validity of new tool.
• Describe data analytic strategies.
Personnel and Resources

• Read the RFA

• Don’t forget to address these two sections within the project narrative
Personnel

- Include section in narrative, specify all key personnel
- Summarize relevant experience
- Specify role on this project and percentage of effort devoted to project
- Use biographical sketches (CVs) to further document expertise and productivity
Resources

• Include section in narrative, describe resources available to support completion of the project

• In Appendix A document access to schools or datasets needed to conduct research project
Build Relationships with Schools
Include Letters of Agreement

• Expected for most competitions
• Reviewers look for them and read them carefully
• Should include detailed information that demonstrates that your partners understand what participation will entail
• From whom should you get letters?
  – Teachers, Principals, District?
Formatting Requirements

- Abstract is 1 page single-spaced.
- Research narrative is no longer than 25 pages single-spaced.
- Bibliography has no page limit.
- Each biographical sketch is limited to 4 pages.
- Budget justification has no page limit.
- Appendix A can be no longer than 15 pages.
- Appendix B can be no longer than 10 pages.
Additional Reminders

• Pay attention to what can and cannot be included in the Appendices
• Have a colleague who isn’t involved in the project read a draft
Reviewers’ Perspectives

• Write clearly and concisely
• Address the points described in RFA
• Organize information in logical sequence
• Label sections and number pages
• Make it easy for reviewers to find and understand the information
Submitting a Proposal

- All proposals must be submitted electronically to:
  - [http://www.grants.gov](http://www.grants.gov)

- By **4:30:00 pm Washington DC time** on the date listed in the RFA for the competition to which you are submitting.
Final Proposal Submission

• On-line forms are complete
• PDFs of proposal contents have been uploaded
• Authorized representative has completed the final step of the electronic process.
• You have received email acknowledging receipt of your application.
What Happens Next?
Peer Review

• Proposal is reviewed for compliance.
• Compliant proposals are assigned to a review panel.
• Two or three panel members conduct primary review of each application.
• At panel meeting, the most competitive applications are reviewed by full panel.
Peer Review Process Information

Notification

- All applicants will receive email notification of the status of their application.
- All applicants receive copies of reviewer comments.
- If you are not granted an award the first time, plan on resubmitting, and talk to your program officer.
Final Reminders
Don’t Forget...

• Start early
• Read the Request for Applications
• Talk with the program officer
• Start the online submission process early
ies.ed.gov

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