How to Write a Research Grant Proposal to the Institute of Education Sciences:  
Bringing Prevention Science Ideas to Education Research

Presenters

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Purpose of the workshop, including specific learning objectives

The Institute of Education Sciences (IES) has multiple funding opportunities for researchers from the multidisciplinary prevention research community to bring their knowledge of prevention science to bear on education practice. A number of SPR members are involved in prevention efforts in schools that promote the well-being of students and help to prevent and reduce problem behaviors and poor educational outcomes. This preconference workshop is designed to raise awareness of funding support for prevention scientists whose research questions are relevant to education research and to provide instruction on how to develop competitive grant applications for IES. The workshop is modeled on a well received prior workshop offered by IES staff at the AERA (American Education Research Association) conference in 2010. This SPR workshop will provide instruction and advice on writing a successful application to the Institute of Education Sciences’ Education Research Grants Program (84.305A) and Special Education Research Grants Program (84.324A). The workshop will focus on 1) the topics that make up these two grant programs, and highlight particular topic areas that may be of particular interest to prevention scientists; 2) the types of research questions that are supported by the IES goal structure; and 3) the four sections of the Research Narrative (Significance, Research Plan, Personnel, and Resources) that comprise the most important part of the grant application. Direct instruction on these topics will be accompanied by review of examples, relevance to each participant’s own work, and discussion.

Although many of IES’s topic areas will appeal to prevention scientists, two may be of particular interest to the SPR membership. Through its Social and Behavioral Context for Academic Learning research program, IES supports research on interventions designed to improve social skills and behaviors that support academic and other important school-related outcomes (e.g. attendance, high school graduation rates) in typically developing students from kindergarten through Grade 12. Through its Social and Behavioral Outcomes to Support Learning research grant program IES supports research that addresses the prevention or amelioration of behavior problems in students with or at-risk for disabilities and concomitantly, improve their developmental and academic outcomes.

Considerable work focusing on interventions that are aimed at preventing or ameliorating behavior disorders in children and youth has been conducted in the areas of developmental psychopathology, prevention research, and children’s mental health services. Much of this work focuses on improving social and behavioral functioning in schools and other community settings, yet there has been relatively little
systematic effort to bridge these efforts with prevention and intervention research in education and special education. This preconference workshop will both introduce researchers interested in school-based prevention and intervention programs to pertinent funding opportunities available through IES, and provide specific instruction and guidance on preparing a successful grant application to IES.

Applicants make a large investment in writing an application to IES’ grant programs (and peer reviewers make a substantial time investment in reading them). Applications submitted to inappropriate topics or goals are not accepted for review and are a poor investment of applicant time. Applications that do not respond well to the requirements for the four sections of the research narrative often receive poor reviews and again represent a poor investment of applicant time and reviewer time. The peer review process provides feedback on substantive issues and may provide advice regarding these issues. However, it would be more efficient for applicants to be made aware of ways to better present their intended research and pitfalls to avoid before submitting their application. By providing detail on writing clearer more informative sections of the application, this workshop seeks to help applicants write clearer, responsive applications that can be judged on their substantive merits by the peer reviewers. Our experience as program officers indicates that researchers believe either their application is not appropriate for IES when indeed it is, or believe that a grant written for another funding agency only needs minor “tweaks” to be acceptable for IES, when in fact terminology and expected content can be quite different in the field of education.

The immediate goal of the course is for the participants to leave with an understanding of what information should be provided in each section (Significance, Research Plan, Personnel, and Resources) of the Research Narrative portion of the IES grant application. The course is not intended to lead to a cookie cutter approach to writing an IES application but to ensure that the content required is included and that applicants are aware of different ways to more clearly express this content. By helping prevention scientists to understand how to write a research grant application to IES, these researchers can expand their research agendas and grow as scientists.

The distal goals of the course are twofold: 1) to raise awareness among prevention scientists of unique funding opportunities that are available through IES to support prevention research in education; and 2) to increase the quality of the applications received by IES (at least by course attendees) leading to an increase in the likelihood of their receiving positive peer reviews, and resulting in an increase in the likelihood of their being funded. Funding more prevention science work will bring important ideas from the field to bear on pressing problems in the field of education.

Target Workshop Audience

Participants should be ready and in a position to submit an application to IES grant competitions. They can include experienced prevention science researchers who have never submitted to IES, less experienced researchers who have not received an IES grant, and finishing graduate students who are taking on a position in the education research field. Because the workshop is to include advice on participants’ research ideas, applicants should have research questions in mind and some familiarity with the IES Requests for Applications (http://ies.ed.gov/funding/).

Outline of workshop

Emily Doolittle and Jacquelyn Buckley will divide the presentation equally. When one is at the front of the room, the other will be moving around the room to answer questions or provide support as needed to participants or the presenter.

1. As participants enter the room, ask them to do the following:
   a. Write name and institutional affiliation on the front of the cardboard tent.
   b. Write a research topic of personal interest (classroom management, character education, social/emotional learning, etc) on the back of the tent.
2. Introduce the workshop generally:
a. Ask participants what they already know and want to know about IES and its application process.
   b. Record ideas on blank power point slide.

3. Identify purpose of the workshop:
   a. This workshop will provide instruction and advice on writing a successful application to the Institute of Education Sciences' research grant programs.
   b. The workshop will focus on the four sections of the Research Narrative:
      i. Significance, Research Plan, Personnel, and Resources
      ii. Participants will learn the purpose of each section including:
         1. the content expected to be addressed
         2. techniques to clearly explicate the content
         3. ways to provide continuity throughout the Narrative
   c. Review the agenda for the day-long workshop.
      i. Background of IES
      ii. Write Research Paragraph
      iii. Grant Programs
      iv. Goal Structure
      v. Project Narrative – 4 parts
      vi. Revise Research Paragraph

4. Describe background of IES:
   a. IES organizational structure
   b. Overall research objectives
   c. Final outcomes for students
   d. Key dates

5. Ask participants to describe their research topic and design by doing the following:
   a. Distribute a blank copy of the structured abstract table to each participant.
   b. On page 1, ask participants to write a paragraph describing their research topic and research design.
   c. Invite participants to share their paragraph with a partner, paraphrase it, and discuss its clarity.

6. Help participants to distinguish between the IES research grant programs by doing the following:
   a. Review each of the competitions and programs using the slides.
   b. Discuss issues about each program (grade range for each program, difference and overlap between two programs, etc.).
   c. Distribute 1 or more post it notes to each participant.
   d. Use tape to hang 5 printed colored slides in the front of the room with each of the following competitions and CFDA number listed on a given slide:
      i. Statistical and Research Methodology in Education (84.305D)
      ii. Evaluation of State and Local Education Programs and Policies (84.305E)
      iii. Education Research (84.305A)
      iv. Special Education Research (84.324A)
   e. Ask participants to write their topic on the post it note. If they think their topic fits into more than one topic, have them use more than one post it note.
   f. Invite participants to post their topic near the correct program (which will be hanging on the wall).
   g. Discuss sample topics and their appropriateness to the selected program. Do others agree? If applying to Education Research or Special Education Research, ask them to identify the correct topic.
   h. Ask participants to write the Competition number (84.305A, 84.324A, etc) on their structured abstract table.

15- Minute BREAK

7. Introduce the 5 Goals by doing the following:
   a. List the 5 goals (2 slides).
   b. Describe Exploration (2 slides).
c. Ask participants to write on an index card a research question on their specific research topic that could be addressed by the Exploration Goal. On the back of the card, write “Exploration”.
d. Repeat b and c for the remaining Goals: Development, Efficacy, Scale-up, and Measurement.
e. (Activity) Do this activity either as a large class or in small groups of 4-5:
   i. Invite one participant to shuffle their 5 index cards then share the cards with the group (Goal name face down).
   ii. Ask participants to work as a team to identify the goal for each question and discuss if the question is appropriate for each goal.
   iii. Ask participants if the goals build on one another in any way.
f. Use the slides to discuss how the goals build on one another. Point out, “When you write your proposal you must articulate how your project fits into this research trajectory.”

**BREAK FOR LUNCH**

8. Explain the 4 key sections of the research narrative and their key components by doing the following:
a. Significance - Use the ppt slides to introduce “Significance Section.”
   i. Divide participants into random groups of 4-5.
   ii. Give them 5 printed slides describing the significance section for each goal.
   iii. Ask them to identify to which goal each belongs.
   iv. Ask groups to share results. Ask, “What are the important components of a significance section for an Exploration Goal? Show the slide “Significance: Exploration Goal” as they discuss it.
   v. Repeat iii for the Significance: Development Goal; Significance: Efficacy, Significance: Scale-up, and Significance: Measurement.
   vi. Discuss Key Problem Areas for Significance, including reviewers’ comments.
   vii. Analyze example portions of Significance sections and discuss possible strengths and weaknesses of each.
   viii. Invite participants to select one research question from the research questions they developed in #7 above. To which goal will they apply? Ask participants to use the structured abstract table to write their own significance section (1-2 paragraphs). Remind them to include a logic model.
   ix. Exchange paragraphs with a partner. What is covered? What is missing?
b. Research Plan - Use the ppt slides to introduce “Research Plan Section” (2 intro slides).
   i. Divide participants into GOAL groups—groups based on the Goal to which they will apply - (Exploratory research, Design research, Evaluation research, Measurement research).
   ii. Distribute to each GOAL group the ppt slides describing research plans for their particular Goal.
   iii. Ask each GOAL group to discuss what a good research plan looks like for their particular goal. As groups share their points, review the slides for each goal.
   iv. Then distribute example Research Plans to each GOAL group to analyze possible strengths and weaknesses. Make certain each group gets an example research plan for their particular goal.
   v. Discuss the strengths and weaknesses of each research plan.
c. Personnel – use the slides to discuss the Personnel section.
d. Resources – use the slides to discuss the Resources section.

9. Opening Paragraph:
a. Before taking the afternoon break, show participants the 2 slides on the Opening Paragraph.
b. Invite participants to revisit the paragraphs they wrote in #5 above, which was on page 1 of the structured abstract.
c. Ask participants to re-write the paragraph describing their research topic and research design. Can they reformulate it as an opening paragraph?

**15-Minute BREAK**
d. Have participants exchange paragraphs and discuss whether the reader is now clear what the project will entail – can the reader anticipate what the rest of application will include?

e. Distribute Tips on Writing sheet

f. Understand the IES review process
   i. Show screen capture of IES Standards and Review Web page.
   ii. Discuss the review process using the slides.
   iii. Show participants an example panel summary without identifying information; discuss triage process

10. Breakout groups
   a. Invite groups to meet to discuss common issues (see the ppt slides for list)
   b. Emily Doolittle and Jacquelyn Buckley meet with individuals about their applications while the groups meet

11. Complete course evaluation.

Presenters

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**EMPLOYMENT**

Research Scientist
National Center for Education Research
Institute of Education Sciences
U.S. Department of Education
January 2008 – present.
Oversees two education research grant programs, Social and Behavioral Context for Academic Learning and Reading and Writing.

**EDUCATION**

The University of Chicago

**SELECTED INVITED PRESENTATIONS**

- Association for Positive Behavior Support 2009: Funding Opportunities at the Institute of Education Sciences
- IES Research Funding Webinars on the Application Process

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**EMPLOYMENT**

Research Scientist
National Center for Special Education Research
Institute of Education Sciences
U.S. Department of Education
June 2006 – present.
Oversees two special education research grant programs, Social and Behavioral Outcomes to Support Learning and Professional Development for Teachers and Related Service Providers.

**EDUCATION**

Ph.D. (2002) Educational Psychology
The University of Wisconsin-Madison

**SELECTED INVITED PRESENTATIONS**

- Society for Research on Adolescents Biannual Conference (2010, March)
- Research and Training Center for Children’s Mental Health, University of South Florida (2009, March)
- National Association of School Psychologists
Emily Doolittle and Jacquelyn Buckley are program officers at IES and provide technical assistance to applicants prior to submission of a proposal. This technical assistance ranges from help with understanding the substantive requirements of a proposal to assistance with completing the application package to guidance on the criteria for review of scientific merit.