INSTITUTE OF EDUCATION SCIENCES

U.S. DEPARTMENT OF EDUCATION

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WEBINAR:

GRANT WRITING WORKSHOP FOR

EXPLORATION PROJECTS (GOAL 1)

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TUESDAY

JUNE 2, 2009

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PROCEEDINGS

Slide One:

DR. ALBRO: Good afternoon. This is Liz Albro. I am here, joined by Allen Ruby, and we are going to talk with you all about preparing Goal 1 projects for the Institute of Education Sciences. These are projects designed to explore hypotheses, and Allen and I are going to talk with you about how to do that. So we are assuming that most of you are familiar with the IES goal structure and have a familiarity with the Request for Applications. If you have questions about that, please do feel free to ask, but we are going to assume familiarity with the RFA.

The way that this works, for those of you who haven't done a webinar before, is that Allen and I will walk through the slides. If you have questions, please pass them by typing them into your Q&A box, and Carol will let me know when I have them, and Allen and I will answer them as we go along.

So, welcome. We hope this is helpful, and please do send us questions because that helps us make these sessions more productive for everyone.

Slide Two:

So let's get started.

Slide Three:

Before we get into the detail, I want to remind everyone that in order to submit a grant application to the Institute of Education Sciences, you require three different sets of information. The first is the Request for Applications for the topical competition that you are intending to apply to. You also need to pull down the IES Grants.gov Application Submission Guide which provides you with information about how to fill in the forms of the application. And you also need to download the Application Package from Grants.gov. So I am happy to talk more about that process for you, but I just want to make sure everyone knows that you need to have those three items before you can put in an application.

Slide Four:

Where we can find that information? The Fiscal 2010 Requests for Applications, as well as the Application Submission Guide, are both available on the ies.ed.gov/funding guide. And for those of you who are just trying to learn more about IES and if you are thinking about applying in the future, please do make sure that you are signed up for the IES Newsflash and that you check the NCER and/or NCSER button, the two research center buttons, and then you will be sure to get information about when future Requests for Applications or applications are ready.

Slide Five:

So the two grant programs where Goal 1 applications can be submitted are the Education Research Grant Program and the Special Education Research Grant Program. Within both of those programs, there are a series of topics and five goals.

Oops, I am pushing the wrong button here.

Slide Six:

The goals that we have within these two RFAs help us move towards solution-driven research. The work that we fund is very much applied, and we intend to support research designed to contribute to the solution of practical education problems.

In order to help researchers think about the scope of work that is reasonable, depending upon where you are in your timeline of research, we have broken the research process down into five different goals, and applicants need to select one.

Today, we are going to focus on Goal 1 applications, which we are calling Exploration Applications. We also have Goal 2, which is focused on Development and Innovation of New Curriculum; Goal 3, focused on carrying out Efficacy and Replication Trials of Already-Developed Curricula; Scale-up Evaluations under Goal 4; and Measurement Applications under Goal 5. We have had webinars in the past on Goal 2 and Goal 3, and those slides are available on the IES website; no webinars so far on Goals 4 and 5, but keep tuned.

Slide Seven:

DR. RUBY: Okay. So this is Allen, and just why do we have a Goal 1 at all? Goal 1 is in part to support the next two goals of Development and Efficacy. So, for example, before people should start developing a new education intervention, it is best that they understand the problem that the intervention is to address.

So, for example, what are the underlying processes that affect the education outcomes? So these are the processes that you would wish to affect with your intervention. What are the malleable factors that might be targets for the intervention? And what is distinguishing between effective and less effective practice?

Slide Eight:

At the same time, before you start evaluating an education intervention, you would like some early evidence that these interventions are promising and are worthwhile to evaluate. Because the costs of evaluation are so high and the time commitments are so long, it is best if we get some initial information that it's worthwhile to evaluate them before we actually support the evaluation.

Slide Nine:

So putting these two ideas together, much of the development work in some of the evaluations first began with Goal 1 projects in order to examine their underlying processes, in order to inform the development of the new interventions or to modifying already-existing interventions, and to identify promising interventions for evaluation.

Slide Ten:

So our Goal 1 exploration is to explore associations between education outcomes and malleable factors and also to examine factors and conditions that may mediate or moderate these relationships between the malleable factors and the education outcomes.

Slide Eleven:

Just a little information on malleable factors, using the term "malleable" in order to stress that these are factors that actually can be changed. So, at the same time, they must be factors that are controlled or under the control of the education system, so that the system can make such changes, so, for example, children's behavior, teacher practices, and education interventions broadly designed—broadly defined from practice to curricula to instruction to specific programs and policies.

Slide Twelve:

So, as a result, Goal 1 projects should be generating hypotheses regarding these malleable factors and their association with education outcomes and be contributing to theories of change for education intervention.

Very important, they should not be testing the efficacy of education intervention. This is an issue that comes up often in the review panel. A proposal comes in as a Goal 1, but it is really—it's an experiment or it's a regression discontinuity, or it's a very complex econometric model that is trying to control for selection bias, but it is really trying to test the effects, the impacts of the intervention, not the association of the intervention, and so it is very important if you want to do that, you should look at our Goal 3 webinar, but, if you're not ready to do that, then you should stay with Goal 1.

Goal 1 projects should not be examining nonmalleable factors. So if you come in saying I want to see the effect of a program on girls versus boys, and that is as far as you go, well, there is not much. There's nothing malleable there, but if you want to look at why girls or boys may react differently—maybe they have a certain behavior that's different or maybe they are treated differently through instruction—then those may be malleable, and there, that would be more appropriate under a Goal 1.

And finally, the malleable factors should be inside the—should not be outside the control of the school system. So, if your argument is that, for example, poverty is the cause of a certain problem, a learning problem, that is something that is not going to fall within the control of the school system. So that would not be an appropriate topic to be looking at under a Goal 1 project.

DR. ALBRO: Right. And another example of things that are outside of the controls of school systems, we have a lot of questions about parents and to what degree can we do research with parents and can we change parent behavior. And we certainly do support research looking at the role of parents, but it's the role of parents that's within the control of the school system. So, typically, individuals will propose to look at parent behavior that happens, say, materials are sent home from school, and how parents use those. So there needs to be that strong link between things that are within the control of the school system versus those that are not.

Slide Thirteen:

So that's sort of the big picture, and, again, I hope that folks are thinking about these big pictures.

When you're preparing a Goal 1, you need to write a Research Narrative, of course. It's 25 pages, single-spaced, and as is true for all of our research applications, each application should include four separate sections that the reviewers will score your application on. There should be a section which discusses the significance of the proposed research. There will be a section that discusses the methodological requirements or the research plan of your particular proposal, a section describing personnel, and a section describing resources.

Oh, we have a question here, which says, ***"Is associate defined similar to correlate?"***

I think that, yes, that is, indeed, one way that we can.

DR. RUBY: Right. And, of course, if you were doing, let's say, a regression model, it would be more than a correlation. It would be a partial correlation with the control variable taken out.

DR. ALBRO: But you as the applicant is—part of your responsibility is to make it clear to the reviewers that you understand what the relationships are, that you're able to describe given the data that you're planning to collect.

We have a question here for an example of a project for a Goal 1, and I think—do you want to go ahead and do it?

DR. RUBY: Sure.

DR. ALBRO: Okay.

DR. RUBY: For example, we had a project that was interested in looking at what was the association of school grade span and student outcomes. So they took data from New York City, and they examined students in K-through-5 and K-through-6 schools versus K to 8, K to 9—K-to-5, K-to-6 schools, plus a middle school, and then compared that to students, how they performed in K to 8 and K to 9.

And just to give you—they were looking at six–five different outcomes. One was just a description of the grade span patterns in New York City. Secondly was to look at the change in grade spans over time, and they found, for example, that K to 7, K to 8, K to 9, and K to 5 went up, while K to 6 went down. And what they—the reason for that—and then, actually, 6 through 8 went up, too, and the reason was—their argument, the reason was that it seemed that sixth grade was being moved out of elementary school. So it was either showing up in a formation where elementary and middle school were combined in K to 8 or it was showing up in a middle school, 6 through 8. And their background research found that this was probably more caused by the demographics than by any purpose, other purpose than the rising number or falling number of students.

Then they used some regression models to compare sixth grade performance in these different types of grade spans, and they found K to 6 scored higher than 6 through 8, controlling for fifth grade scores, student and school characteristics. Then they did the next step looking at some subgroups. Interesting, they found females were achieving not as well in K through 6 as versus 6 through 8, while males were actually achieving better in K to 6s.

Looking at race/ethnicity, they found that blacks and Hispanic students did perform better in K to 6s and K to 8s in sixth grade than in middle school. And finally, they took a look at eighth grade, the growth from fourth grade to eighth grade, and there, they looked only overall, and they found that K to 8—students in K to 8 did better in eighth grade than students who had gone from a K to 5 to a 6 through 8.

So, of course, there's a huge selection bias here. Why are students going to these different types of schools? Are there neighborhood differences between how the schools attend? But there is enough initial evidence here now to say we should start thinking about some way of doing a better—a more rigorous examination of grade spans to see if these differences really do exist for some reason or if it's just a function of the selection bias behind them.

DR. ALBRO: And I'll just give a short example from—of a practice that we just recently funded, so I have no data. It's really operating a Goal 1 study at the classroom level where we have a team of researchers who are interested in this question of vocabulary depth versus breadth. So there's a lot of debate in the literature around reading instructions, whether it's more important for students to come to reading with knowledge of many, many, many words or whether it's important that students have deep knowledge of the words that they do know, and so they understand lots of different variants of meaning.

But there is very little empirical data to guide decisions about that. We don't really know what having a large vocabulary means in terms of whether kids have depth or breadth.

So we have just funded a project to look at early elementary school. I believe it is second to fourth grade. They are going to be doing descriptive longitudinal data where they are going to be following kids over second, third, and fourth grade, and they are also going to be looking to see if there are any associations between classroom instruction around word knowledge in students and student performance as a function of individual variability. So they are trying to—again, they are generating hypotheses. There is this belief in the literature that these are two dimensions of vocabulary knowledge, they are important, and they are trying to unpack what those relationships look like in the context of learners.

There's a question here which says, ***"We have a program that has been implemented for a few years. We want to revise the program in several ways, most importantly, to put a lot of it online. Could we apply under Goal 1 to pass the efficacy of online learning?"***

No. If you are intending to test an efficacy of an intervention that is already developed, you would need to apply under Goal 3, which is designed to test that causal question.

If, on the other hand, you need to—what you would like is to get funding to revise the current curriculum, then you should come in under Goal 2 which is specifically designed to support development and innovation to revision.

DR. RUBY: Well, then I'm wondering if under Goal 1, if you had already developed this Internet approach, under Goal 1, you could look to see—again, not causing, not testing efficacy, but you might look to see if different subgroups reacted—had different associations with outcomes. Some subgroups might work better with the Internet. That would be very interesting to learn, and that would inform future development or possibly future evaluation.

DR. ALBRO: Right. And I am going to put in this disclaimer that I always put in about this time of a webinar, which is to encourage each of you to reach out to that cognitive program officer. If you have not looked—if you have not read all the way to the end of the Request for Applications yet, please know that on the—I think it is the very last page or the last couple of pages, there's a list of program officers listed who are associated with each of the topics. So, if you're interested in an education and technology application, Jonathan Levy is the program officer, and he would be the person that you should contact. And he can talk with you about the decisions that you want to think about when you're trying to put together your proposal, starting on page 86 for the NCER RFA.

All right. So keep the questions coming. I'm going to go ahead and start to talk about the content, and we will come back and answer questions again.

So, when you're starting to write your Goal 1 application, what do you need to include? Just to recap, you need to include a significance section. You need to include a detailed research plan. You need to include a section describing personnel and a section describing the resources.

Slide Fourteen:

What does "significance" mean? Significance in a competitive application to the Institute of Education Sciences as to Goal 1 should include a discussion of the theoretical and empirical rationale for the study. So why theoretically would you expect there to be an association between, say, grade span and student achievement? Why would you expect there to be an association between depth and breadth of vocabulary knowledge and reading comprehension? So lay out the theoretical foundation. Then you should also spend time discussing whatever prior empirical evidence exists for those associations. So it is unlikely that you are the first person to ask this question or to try to understand the relationship. Spend some time discussing and framing your project in terms of the prior literature.

It is also very important that you spend time in your significance section discussing the practical importance of the variables that you are proposing to examine. So those would include the malleable factors and any mediators or moderators that you are hypothesizing to be important in terms of how they could relate to student outcomes.

Slide Fifteen:

Methodological requirements. Now, under Goal 1, again, for those of you who have looked at the RFA, you will notice that the methodological requirements are relatively underspecified. So we have examples of the methodological requirements that you could consider, but I want you to note that these are possible examples. They are not meant to be complete. There are other types of methods that may be appropriate, depending upon the question.

What is critical for the applicant to do is to take the time to make sure that the research questions that you are posing map onto those research designs that you are proposing. So please make sure that your significance and your research questions map well onto the design that you propose.

Slide Sixteen:

What are possible methodological approaches that are discussed in the RFA? Again, please note these should not be taken as limiting but as starting points, and so Allen and I are going to talk about all three of these.

The first is you could propose to do secondary data analysis of existing datasets. A second is that you could propose an original data collection with appropriate statistical analyses, and, finally, you could propose to complete a meta-analysis or—you could propose to complete a meta-analysis designed to determine—whoops—we've got "moderators or moderators." I think we need "moderators or mediators of effects."

All right. So I think Allen is going to talk to you all—oh, wait. Now I've got to do the next one. So, sorry, we're tag-teaming here.

Slide Seventeen:

Each application in the research section or the methodological requirements section needs to include clear, concise hypotheses or research questions. It needs to include a discussion, a well-specified discussion of the relations between the hypotheses that you are testing, the measures you will be using, and the independent and dependent variables that you specified in your design.

You need to clearly describe where you plan to get this data from, whether it's a secondary dataset, whether it is from original data collection, whether it's from the published literature, and you need to include a detailed description of the data analytic procedures you are proposing to use.

I just want to encourage everyone to notice the word there, "detailed descriptions." Please note that this is a critical component of successful applications, and reviewers are really trying to understand the "what" and the "how" of what you are proposing to do. They are making decisions about whether your project will answer the questions that it's posed, and the only way they can do that is by understanding the analytical procedure that you are proposing.

Slide Eighteen:
DR. RUBY: If you are going to do a secondary data analysis, you want to give a good deal of description to the dataset, what is it, what does it include, and this will vary, depending on how well known it is. If you are using one of the National Center of Education Research datasets, the review panel would probably be very familiar with it, but you should still describe it in enough detail.

If you are using some lesser known or more specific dataset, you'd probably want to give more detail to make people comfortable with it and identify what the variables are in it and how it was constructed. So you want to talk about what the sample was, what the sample characteristics and how the sampling was done for the dataset, what variables you are pulling out of it, or if you are constructing variables, what are you building them from.

You need to show that you have access to this data, especially if it is a confidential dataset. It is important to have a letter saying you have a license to use this data or, at the very least, that you have an application, and that you are expecting a response soon.

If you are going to put together multiple datasets, clearly show how you are going to link them, so that someone familiar with the datasets would feel comfortable that the sets can be linked.

You want to describe your primary outcome measures to be used. So you want to talk about their reliability and validity; again, what mediators and moderators you will be exploring.

DR. ALBRO: And you can propose to do a secondary data analysis of data that you have already collected. So it can be a dataset that you have, but then it is even more important that you spend sufficient time describing what information is available in that dataset because the review panel can't go to other sources to look, to learn more about the dataset.

DR. RUBY: And it is possible if you or someone else has done a randomized control trial before to test the efficacy of an intervention and now you want to look at, let's say, some of the mediators or the moderators for the effects they found, that would be a good place to come to Goal 1 because people weren't randomly assigned based on those mediators or those moderators. And, again, so then you would describe the data and then talk about the actual analysis you are going to do with that data.

Slide Nineteen:
DR. ALBRO: So there's lots of opportunities, and it really just depends upon what data you are planning to use.

All right. You can also propose original data collection or primary data collection. As in a secondary data analysis, it is critical that you describe what are the characteristics of the sample that you are proposing to work with, how many students, how many teachers, what are the demographic characteristics, any other characteristics that might be important.

If you are putting in an application for the National Center for Special Education Research, please explain how you are going to know whether students fit into the categories that are important for special education classification. Again, please make sure you describe the measures that you are proposing to use, including the reliability and validity of those measures.

In original data collection, you may be using standardized measures, but you may also be using measures that you have already developed or you plan to be developing during the intervention, and you need to describe what those look like.

Describe the procedures proposed for data collection. So, from original data collection, if you are doing observational studies, how are you going to collect that data? Are you going to be using surveys? Is it teacher surveys, or are you going to train observers to go in and look at classroom behavior? Are you planning to do interviews with children, teachers, principals, focus groups? Are you going to do sort of field notes? What are the methods that you are proposing to collect? And then what's your design? So, again, what are those questions that you are proposing to ask?

Slide Twenty:
If you do plan to collect observational data, please note that it is very important to describe how the observer reliability will be maintained, how data will be coded, and how the data you plan to collect will be quantified to support the prediction of the relation between what was observed and outcomes and interest.

So there is an expectation in Goal 1 studies that you will be able to quantify at least some of the data that you collect in order to calculate a relationship between what is observed in a classroom, the association, and student outcomes.

Slide Twenty-one:

All right. Note that you can also propose to collect both original data and to complete a secondary data analysis, and you can propose to do these two. Perhaps you want to start out with a secondary data analysis and start to explore relations, and then you would like to actually see if those relationships can also be observed in a classroom setting.

If you are planning to do both types of data analysis and design, again, please make sure that you describe who the sample is that you are planning to draw the primary data from. Describe how that sample is related to or links to the sample of students or teachers whose information is in the database.

You've got to describe the measures. Again, it is important for you to describe how these measures are related across these two different studies that you are proposing to do within the context of one application, and, again, make sure you describe these primary data collection procedures.

DR. RUBY: I think one key point on the original data collection, though, is the purpose of Goal 1 is not to create a new dataset, large-scale dataset. So you are just creating a large enough dataset to try to answer some of the questions you are proposing, but you are not coming in with a new national survey or a new state-level survey.

DR. ALBRO: Okay. We have a couple questions here, and I'm going to read them out to the audience, and then one of us will try to answer them.

The first says, ***"Can you explain the mediator and moderator aspects again?"***

DR. RUBY: Okay.

DR. ALBRO: We didn't go into lots of detail about it, and it really depends in part upon the—on the study that you are proposing.

DR. RUBY: The moderator is what are—let's say, for example, do different types of students—this would be the subgroup analysis—are there different types of students—do student characteristics affect, let's say, the outcomes that they are receiving? If you had a specific intervention, did it differ by race, did it differ by gender, did it differ by the type of school they went to or something of that case, something that usually isn't randomly assigned, but—I'm getting lost—something that would be important.

Let's say we had an intervention, if it was important to find out who that intervention worked for, so that a district could decide who should receive that intervention. If it only worked for one type of group but not the other, or at least an association showed that it only worked for one type of group or another, that would then lead us to decide that it would be worthwhile to do some more rigorous evaluation to see is that really true, and, therefore, districts should only use that intervention for certain types of students.

DR. ALBRO: Right. And so mediators and moderators are really going to depend upon what are the characteristics of the dataset that you have and what are the hypothesized intermediate variables that go between, say, a potential intervention and a student outcome, and so I think if you are struggling with whether you have mediators and moderators or if that's a question that you want to ask in your particular application, talk with one of our program staff who can work you, who can really work with you more closely in terms of thinking through what makes sense, given questions you are posing.

All right. A couple more here. ***"Even if the dataset is well known, would it be beneficial to give a detailed enough explanation of the dataset sampling variables, et cetera, to demonstrate that you are familiar with the dataset?"***

And Allen and I are both nodding our heads. Absolutely, I think that's really important. It's not only important for you to demonstrate your familiarity, but there's no guarantee that the particular individual who is assigned to review your application is as familiar with the dataset as you might expect. It is absolutely in your best interest to be as detailed as you have space for in your application.

I have a question about whether what I am going to say here is an appropriate project for Goal 1. An intervention that focuses on culturally responsive pedagogy, already proven successful, we will track the effect of this program in other school districts on teachers and students of color over three years.

It sounds to me like an efficacy study. Again, you know, one of the great things about webinars is you're never quite sure if you're answering the right question, but, if you're looking to—you're looking to do what sounds like a replication study where you want to test the causal effects of using culturally responsive pedagogy on student outcomes. I think that you could propose that under an efficacy study, and those studies are up to four years.

DR. RUBY: Right. And I think the only difference would be if you wanted to use—if, let's say, you had originally done this study on a group of districts, and within that group there was a small subset serving, that primarily served African American students, those schools were not—there is some selection bias because those schools are not randomly assigned, that small subgroup of schools is not randomly assigned, then you could pull out that data and do a Goal 1 under that, do that because of that.

DR. ALBRO: All right. I have another—

DR. RUBY: But I would say—sorry. I would just say in that case, I wouldn't only limit it to the one group. I would try to look at other groups as well because what does it tell you with one group versus comparing it to the other group. You learn more in that comparison.

DR. ALBRO: All right. One more question—well, two more. ***"For teacher quality"—"For teacher quality read/write Goal 1 grant, I want to explore what professional***

development helps teachers learn to use technology-supported literacy instructional practices. Should the literature for significance focus on teacher professional development and technology support or on technology and student learning in literacy?"

Probably—yeah. I think probably both or all three, depending upon how you want to frame it. Right? One of the things about teacher quality projects—and this foreshadowing what Allen and I will talk about tomorrow, but one of the things that is challenging always for teacher quality projects is that you need to include both the link between the teacher professional development and then the change in teacher behavior, and then you also need to talk about how those changes are hypothesized to relate to student outcomes. So, in your literature reviews, you will need to talk about how you believe all three components are linked to one another.

"We are interested in evaluating the impacts of recreational programming such as after school or community-based programming on educational outcomes. Is this appropriate for a Goal 1 study?"

You have to be careful about how you frame your question. Right? The evaluating impacts sounds to me like a causal question. If what you are trying to do is explore relationships to see if kids who go to after-school programs show beneficial outcomes in reading and writing or math and science or social behavioral outcomes, that is appropriate for Goal 1. If you are testing the effects of participating in a particular after-school program, then that may be more appropriate for a Goal 3.

DR. RUBY: Although I would say if it was, let's say, a large-scale recreation program, a state-level or a district-level program where there was no chance to do—set up an experiment or regression discontinuity, but you still want some information, you may be able to come in under a Goal 1 for that reason.

DR. ALBRO: Right. Again, I think that—I hope that those of you out there that we can't see understand that part of the challenge here is thinking about what is the primary question that you really want to answer under a Goal 1, and that's really what's going to drive the decision about whether you want to go to Goal 1 or Goal 3.

If you're trying to generate hypotheses, if you are trying to understand relationships, Goal 1 is probably the right home for you. If you are trying to answer the "what works" question, right, does this work to improve student outcomes, then a Goal 3 may be more likely. I mean, that's sort of one way to think about these two.

Slide Twenty-two:

I think we're going to press ahead. Another possible Goal 1 study includes the use of meta-analysis. So, within Goal 1, another way to look at particularly this question of mediators and moderators of effects is to look at—to reanalyze studies that have already been completed.

One of the things we know is that there's lots of empirical literature about certain schooling practices and student outcomes, but those studies may or may not give you information about what works but may have lots of information in them about things that are associated.

You could propose to look at that kind of a question using a meta-analysis. In describing your meta-analysis, you need to make sure you describe what are the criteria that you propose for including and excluding studies, as well as the rationale for that, those criteria; what are your search procedures; how do you plan to identify which studies should and should not participate or should and should not be included in the study—how are you going to find them; what databases are you going to use?

What's your coding scheme? Before you do a meta-analysis, you need to know what kind of data you are proposing to extract from the studies, so you need to describe what that coding scheme and the procedures are that you are proposing to use, and then how are you going to ensure reliability of the coding? Typically, you are going to have more than one individual pulling data from the studies that you are reanalyzing; what are your procedures for ensuring reliability?

Slide Twenty-three:

You also need to spend a little bit of time before you put your application in doing some of this searching to demonstrate that there are, indeed, a sufficient number of studies out there in the published literature or the—not published literature—in the literature you can get your hands on, right, to support this meta-analysis. You need to show that there's enough there, right, so that you could actually carry out the study as proposed.

In your analytic section, too, you also need to make sure that you clearly describe how you are going to calculate effect sizes; how are you going to—what are you going to use if there is any associated weighting functions; what are the formulas you are going to use for those; what are the procedures for handling outliers? Say you've got studies that really don't fit within the general framework but appear to be relevant, what other data adjustments are you going to need to make in order to ensure that the conclusions you draw from your meta-analysis are, in fact, well supported by the data that you are able to glean from the published literature?

Do you want to take that one?

Slide Twenty-four:

DR. RUBY: Okay. In the personnel section, your next section, it is very important to show that for everything you propose to do, you have somebody with expertise to do that. For example, that you have somebody on there who has expertise in the relative content, relevant content domain or the methods that you'll be using. If you're going to be working with schools, that you have someone who has that experience or working with any other educational agencies. And it's often very useful in that section just to spell it out, say so-and-so is an expert in this area, has done this work, and will be doing this part of the project, so it is very clear to the reviewers that there is a link between who's on the project and the work that's going to be done for that.

Slide Twenty-five:

So, to help you do that, you might want to lay out their qualifications, their roles in the project, what they will be responsible for in the project, and the percent of time devoted for the project, and, obviously, if they have a large responsibility, that percent of time should be much larger than for those with less responsibility.

Slide Twenty-six:

Regarding the resources, that is really looking at is the institution you are at, can they provide the support that is necessary for doing research activities? For example, you know, do you have the computer system there; is the administration system there? In most cases, if you are a large, well known—if you are a well-known institution that's gotten grants in the past, you don't need to spend too much time on that, but, if you're a relatively unknown institution or a not-for-profit, it's important to make it clear that you have the capacity to do this type of work.

If you're doing—as we said before, if you're going to use datasets for secondary analysis, it's very important that you show you have access to that data, and probably, as well, it would be that, you know, you have the computers or the computer time to actually be able to do the analysis if you are proposing a complicated analysis.

If you're going out into the field to do observational—observations, then it is important to show you have permission to come out into the field and do that, so having letters from the school or from district and state personnel saying that they acknowledge that you're going to come out and work with them, and the more specific these are, the better. Saying we know you're coming out for five observations in one year and you'll be spending this much time in the school makes it clear to the panel that you have the agreement of the schools and the districts to do this type of work.

DR. ALBRO: All right. We have a series of questions here. I think I am going to go ahead and do the monetary amount, and then we'll answer questions here.

Slide Twenty-seven:

Under Goal 1, there are two different sets of award information. If you are proposing to only do secondary data analysis or only complete a meta-analysis, you may request no more than two years of funding, and you can request $100,000 to $350,000 per year, total cost, direct and indirect. Please note that the monetary amounts here are actually a typical range. They are not firm and fixed. You can ask for less; you can ask for more. What you need to make sure that you do is provide an adequate justification for the request that you make.

Slide Twenty-eight:

If, on the other hand, you are proposing to do primary or original data collection, either independent, just by itself or in conjunction with a secondary data analysis, you can request up to four years' worth of funding, and you can request—a typical range is $100,000 to $450,000 per year, total cost. Again, that's a typical range. It's 400,000? Oh, sorry. 400,000. Sorry. I was thinking, thinking ahead.

All right. We have a whole series of questions here. I'm going to read them out, and then we'll decide who answers them.

All right. ***"I wish to document through classroom observations various educational practices used in RPI Tier 2 Reading Instructions for English language learners, quantify the field notes, and correlate with oral reading fluency progress monitoring scores. Does this fit Goal 1?"***

I think it does. Allen and I are nodding. It sounds exactly right. I think that you will need to make a decision about which topic is appropriate, whether you want to come in under English language learners, or whether this is something more appropriate for special education, but I think it is absolutely a Goal 1.

DR. RUBY: I think a key point of it is what's your sample? Are you looking at only a specific type of school or specific type of student, and then how will you sample from that, from that universe? It will be important to state up front who is this for.

DR. ALBRO: Right. If it's Tier 2, it's RCI, it's English language learners, and what—yeah—what are those sample characteristics.

Okay. ***"What about a program that is being offered, but there isn't data supporting its use? You can't do an efficacy study because it can't be randomly assigned. This question is referring to single-gender classroom."***

So you can look at associations.

DR. RUBY: Right. And you can look for type of gender; are there type of females who benefit from this or types who do not benefit? I mean, one of the issues here is there's been a fair amount of work on single-gender classrooms doing this type of work, but the other question you want to ask is am I adding something to the literature—

DR. ALBRO: Right.

DR. RUBY: —because that's what the peer reviewers will ask, saying are we going to learn anything more from this than what's already out there? And perhaps there will be. Perhaps for certain types of girls, it works better, or for certain grade levels, it works better, or for certain types of—or is it only linked to the classroom, or is it what's offered inside the classroom that makes the difference?

DR. ALBRO: So, yes. I think, yes, just to piggyback, it's really important to articulate what it is that you're going to add to this conversation through the proposed work.

"For qualitative data, other than observational data, to what extent does this need to be quantified?"

I think it depends upon what you want to do with it. Right? If you're—for example, if you're getting focus group data or interview data that you're going to use to supplement your observational data, I think what's important is you need to describe how you propose to use that information. Right?

DR. RUBY: Yeah. But that question is assuming that there is some quantification—

DR. ALBRO: Yes.

DR. RUBY: —of the observation data, going along with this as well. Perhaps you're using some of this other data to explain the results.

DR. ALBRO: Right. And so this would be, I think, a good case to follow up with your program officer, and they can help you think about what's appropriate at what stage in the proposed project.

"Can you do a mixed-design data analysis and interview?"

Absolutely. In fact, I think Goal 1—I think most of our goals support that. But Goal 1 is the place where we expect to see many mixed-design projects.

"Would a project with multiple sites and multiple subcontracts be more attractive to reviewers for Goal 1?"

DR. RUBY: No. I think the number of sites and contracts, the attractiveness is the questions and the method you use to answer the questions. That's all that matters. If you can do it in one site, simple method, that's important. If it requires multiple sites and multiple folks involved because of the expertise required, then that's what you should do.

DR. ALBRO: Right. Again, it's driven by your question.

"Will researching programs at an international school in another country on cultural awareness and learning in a culturally diverse environment be part of a Goal 1, keeping in mind that the goal would be to relate this information back to U.S. schools?"

DR. RUBY: Well, I think the first issue is can you relate it back to U.S. schools? It seems that you're in a very different situation, probably serving a very different population. It may not be easily—it may not be easy to argue that it has greater relevance than coming back to the U.S. and looking at such schools. That would be my first concern actually.

DR. ALBRO: Yes, I think I agree.

Okay. This is a question that's a little bit to the side. ***"Is IES moving this year towards more dedicated panels to focus on special education research?"***

Allen and I are actually not individuals who can answer that, but we're going to talk about peer review next, and we actually have an Office of Standards and Review which organizes the review process. As program officers, we are responsible for working with applicants as they prepare their applications and then monitoring grants after they're awarded, but we actually have very little to do with the review process. I fear I don't have an answer for your question.

Here's a question, another question about whether this is a Goal 1 or not. ***"To complete a study through observation and questionnaire as to how well co-teaching in special education between the teacher and speech therapist affects student outcomes, as well as an increase in teacher skills, can I do a single case study?"***

Allen and I are sort of at a disadvantage here because we are not special education researchers. I know under Goal 3, you can propose to do a single-case design, but that's different from a case study and that actually involves, you know, bringing an intervention in and taking it away.

I would really encourage you to talk with the Special Education folks.

DR. RUBY: And Goal 1 is really not set up to support single-case studies, though. It's really you're trying to get enough data to try to address—create or address a hypothesis. I don't think you'd be able to do that with a single case study, but, again, as Liz says, I would talk to the Special Education Program Office.

DR. ALBRO: Right. Because, in part, I know that with special education it really depends upon what the characteristics are of the student sample that you're working with. If you only have a few students who fit into this category, that may be an issue.

DR. RUBY: But I think your topic falls under Goal 1.

DR. ALBRO: Right.

DR. RUBY: Not testing the effects but looking at how does the interaction between these two persons affect student—not affect—I shouldn't say "affect"—is associated with student outcomes. I think that falls perfectly under a Goal 1.

Slide Twenty-nine:
DR. ALBRO: All right. We're going to move next and discuss a little bit about the reviewer's perspective, and we have a little bit more sort of details about putting the application together, and, again, if you have more questions, please do send them to us.

All right. We want to just put in—I always like to put in a few reminders as you're preparing your application. When you're writing your application, to put the reviewer's hat on and to think about—to remember that the reviewers are reading 10 to 12 applications, 25-page single-spaced Research Narrative with lots of supplementary materials. They often have over a thousand pages' worth of information that they are trying to process in a couple of weeks. Be kind to your reviewers.

Please write clearly and concisely. Please make sure you address the points described in the RFA. One of the things we've been trying to do in these webinars is highlight some of the critical points in the RFA, but we certainly have not covered everything that's discussed in the RFA. Please refer back to it as you prepare your application.

Please write coherently. Organize your information in a logical sequence. We have an order that's implicit in the sections, but that is not an order that you need to follow religiously. There may be instances where you may want to move things around. Just make sure everything is labeled clearly so the reviewers know what—where the information you're presenting should be scored from their point of view. Is it about the significance? Is it about the research plan? Are you providing information about personnel or resources?

Please label your sections and number your pages. This is something that seems so—in some ways, so silly, so small. Yet, when you are sitting in a panel room and reviewers are trying to show other reviewers where information is in a proposal, it can become very frustrating if there are not page numbers that they can use to help guide the conversation. Take the time to put in page numbers.

The bottom line is what your job is, is besides convincing the reviewers, one of the ways you help convince the reviewers that your project is good to fund is by making it easy for the reviewers to find and understand the information that they need in order to—for your application.

I have a content question here before I move to the next slide***. "What if we want to begin with quantitative measures of student performance and then you want to do a smaller educational autobiographical study of individuals who represent particular subgroups and are identified by the quantitative measures?"***

I'm not quite sure what you mean by that. I mean, certainly, you could propose to do a quantitative study where you look at—you describe characteristics of students, and you look to see if there are associations between characteristics of classrooms and those students, and then you could propose to then do a more in-depth description of the educational experience of those students perhaps. I mean I'm not quite sure what you mean by an "autobiographical study." I think that's what I'm tripping over.

DR. RUBY: And my concern would be there that you're looking at doing one or two case studies for each group, and that probably wouldn't be enough then to generate a hypothesis for that group. You need to have enough, a large enough sample there to be able to at least generate a hypothesis why something is occurring for the group based on your interviews or observation.

DR. ALBRO: I think the other thing that's critical about qualitative data is that you—and however it's gathered, we talked about case studies, qualitative data, autobiographical studies. You need—if you are going to propose to do that as part of your research, you need to be very explicit as to how you plan to code and use that data. Even if you are not planning on quantifying it, if you have some data that's going to be quantified and some that's not, you still need to describe what analytic procedures you're going to use to make sense of the data that is going to come out of that, and that is not always easy to do, but it's incredibly important. And if the reviewers don't understand what you're going to do with this data that you're going to collect, they will write comments needing to know that.

I have a question about reviewers that I'm going to get to in just a few minutes here.

Slide Thirty:

Okay. How do we submit a proposal? As is true for all applications that come into the Institute of Education Sciences, they must be submitted electronically using the Grants.gov portal. This is true across the federal government now. They must be received by 4:30 and zero seconds p.m., Washington, D.C. time, on the date listed in the RFA for the competition to which you are submitting.

For the Education Research Grants competition and for the Special Education Research Grants competition, I have it—okay. I'm going to go back to that slide that I just skipped over. The dates are June 25, 2009, or October 1, 2009, at 4:30 and my zero-zero seconds here.

The reason I include that is to indicate to you all that applications that are received at 4:30 and 05 seconds are considered to be late. Okay? And it's really important that you submit your application early enough so that it doesn't get sent back without review. If it comes in late, it will be sent back without review, and it doesn't matter what time your clock says. It doesn't matter that you started uploading before 4:30. It needs to be uploaded completely, and you need to have received an e-mail acknowledging receipt of it prior to 4:30 p.m. on the date that you received it. Please do yourself a favor, submit early, so that you know that it has been received.

Slide Thirty-one:

For the final application, what do you need to have in place before you submit? Here are just some things, sort of a mini-checklist here. There is a checklist at the end of the IES Grants.gov Submission Guide that you should use, but here are the big categories.

All of your online forms on Grants.gov need to be complete. A PDF of all of the proposal contents have been uploaded. Those would include things like the Research

Narrative, the abstract, the bibliography, curriculum vitae, budget justification, any appendices. All that information needs to be uploaded.

The authorized representative at your institution has completed the final step of the electronic process. If this is the first time that you've applied to a federal grant, please know that our grants do not go to individuals. They go to institutions generally, and it is the authorized representative at your institution who will need to push that final button, not you. You need to make sure that you start that conversation with them earlier—early. And you will know that you have—that the application has been submitted when you receive that e-mail acknowledging receipt.

Slide Thirty-two:

All right. I am going to put the deadlines and time up here, and then I am going to go back and answer some more questions.

We have ***"How many reviewers per RFA?"***

Again, the review—the reviewer questions—again, we don't assign the review panels. The way our review panels are organized—and if you're interested, I think I am going to give you a link further on that actually will discuss the whole review process.

Please note that we have review panels that are organized by general content areas. We have panels that look at reading and writing applications, that look at math and science applications, and that they're not assigned to particular RFAs necessarily. Okay? I know that's a vague question. Full panels range from anything between 12 to 13 individuals up to 25, and it really just depends upon how many applications we receive. That's what determines how many, how many reviewers will be on a panel.

The individual who was asking about the autobiographical study wants to look at educational history, including family background, literacy variables, and student experience in acquiring a second language.

You could do that. I do want to remind you, however, that you need to pay attention to those malleable factors. The question becomes what family background literacy variables could be under a controlled school system and to what degree would schools be able to change kids' acquisition of a second language. Keep that in mind.

Sorry. I am moving quickly here.

"As the RFA states, approximately five percent of Special Education Research applications funded to date are Goal 1. Could you comment on why Goal 1 research is so underrepresented at IES?"

I think in part, this reflects two things. It reflects the fact that Goal 1 is a relatively new addition. I think under Special Education and for us, we have only had a Goal 1 category for—maybe this is the second year that we have competed it, maybe the third. I don't know. I think for Special Ed, it may only be the second year. It's not been around for very long. We haven't had a lot of applications that have come in.

And the other thing to note is that the number of goal—the number of applications that we fund depends entirely upon the applications that we receive. In general, if you were to look at the total distribution of applications we receive, we have historically received fewer applications in Goal 1 than in, say, Goal 2. That would be the reason for that.

"How much discussion in the proposal should there be of the development of a Goal 2 project based on the results of Goal 1?"

DR. RUBY: I mean, I don't think it should be huge, but if you're doing this work in order to support development, it's nice to argue this is part of your significance. If we find the findings from our hypotheses, if our hypotheses—if we have some supporting evidence, then this would lead to either a Goal 2 to develop projects to do X, Y, and Z or to an evaluation of the program we found these findings on. I think a paragraph or two paragraphs at most, since you really want to spend your time on discussing what you intend to do, why it's important, and how you'll do it.

DR. ALBRO: Right. I mean, it's really, I think, in many of these things about providing a frame for the reviewers to understand where this may go, but it should not be a huge part of the proposal.

"Is it advisable to look at multiple constructs, such as why parents choose single-gender schools and how teachers are placed in single-gender classes? Another aspect would be what type of students would this work best for."

I mean, I certainly think that one of the—because Goal 1 studies are about exploration and about hypothesis-generating, that we would expect that multiple—multiple possible malleable factors would be explored in Goal 1. There's no specification about how many. It's really going to depend upon your project.

DR. RUBY: And depending on what the theoretical background for them.

DR. ALBRO: Right.

DR. RUBY: I mean if you can make a strong case why this mediator might be important, then you should include it.

DR. ALBRO: All right. I think we are going to press ahead and talk about the last few slides which will talk about the peer review process, and then we will have a few minutes left for any additional questions.

Slide Thirty-three:

Do you want to talk about peer review, or do you want me to do it?

DR. RUBY: You're doing great.

Slide Thirty-four:
DR. ALBRO: For the peer review process, for those of you who aren't familiar with how it works here at IES, we have sort of a multi-stage process. When all the applications are received on June 25th at 4:30 and zero seconds p.m., they are all received, and the first step that happens is those applications are reviewed for compliance; what we mean—compliance and responsiveness. By compliance, we mean things like is the font size not too small; did the applicant follow the guidelines for the margins; has the applicant paid attention to page numbers; does the applicant include in Appendix A information that is not allowed to be included in Appendix A; those sorts of questions.

If applicants—well, depending upon what kind of compliance issues there are, there may be things that we are able to do, like cutting out pages and saying we are not going to send this forward to review. There may not be things, but the contractor who works with us on this would be in touch with applicants to talk about whether they would like an incomplete proposal to go forward or whether they would like for it to be pulled and reviewed at a later date.

The proposals are also reviewed at that time for responsiveness to the Request for Applications. We accept a wide range of research projects, but we do not accept applications, for example, that propose to open a new preschool and are simply seeking program dollars for that, and so we do a review to make sure that all of the applications that have come in are, in fact, responsive to the review.

If applications are determined to be noncompliant or nonresponsive, they will not be sent forward for a review. They will be returned to the original applicant. However, the vast majority of the applications that we receive are, indeed, compliant, and those are assigned to a review panel. As I indicated before, we have multiple review panels that are organized by content area. The Standards and Review Office is responsible for assigning those applications to different review panels as a function of the content of the application.

Two or three panel members are assigned to conduct the primary review of each application that is received. All applications receive two reviewers—not every application receives three reviewers, partly as a function of budgetary and staffing constraints. However, if you put in a Goal 3 or a Goal 4 proposal, you will be guaranteed to have a third reviewer who is a methodologist. I think, in general, Goal 1 proposals are typically reviewed by two, two primary reviewers.

Those original—that first level of review score your—score your applications on significance, the research plan, personnel, and resources, and then they also provide an overall score for the overall scientific merit of the proposal. Based upon those overall scores, there is a triage process, and the most competitive applications are then reviewed by the full panel at the panel meeting. Based upon those—based upon the scores that come out of the panel meeting, that's what we use back here in the program office to make funding recommendations. That's sort of a quick summary of the peer review process.

Slide Thirty-five:

If you are interested in learning more about our peer review, peer review process, a description of our board-approved peer review priorities is listed at the—that can be found at this website. In addition, lists of panel reviewers for the Fiscal 2008, Fiscal 2007, and Fiscal 2006 cycles of competition are currently available on this website. If you're interested in knowing who the reviewers are, there is a list of them available there.

Slide Thirty-six:

For notification, all applicants will receive e-mail notification of the status of their application. Everyone receives comments of reviewer comments, receives copies of reviewer comments, and I want to encourage everyone that if you are not—if you don't receive an award the first time you submit, you should consider resubmitting. Talk with your program officer. They can help you make sense of the reviews and can provide you with some guidance about where to review.

It is a very competitive process. I think our funding rate averaged overall is around 12 to 13 percent. It is not likely that you will get funded the first time through, but the likelihood is that your applications will get better as you go through the process, just so you know.

We have a question here which says***, "Does the main author need to be well published to be competitive?"***

I think in some ways, it really depends upon the scope of work that you are proposing, but if you are not well published, you need to spend time in your personnel section describing why you are well-qualified to carry out the work that you are proposing. The publication record sort of demonstrates to the review panel what your qualifications are. If you don't have a publication record, then you will need to spend additional time explaining why you are appropriate to do that work.

DR. RUBY: And, in addition, if you're, you know, a young or a new-to-research person, the panel will be looking to see that you—that you have someone on the project that you can talk with who is a more experienced researcher. You may want to think about having a co-PI or a co-I of a more experienced person or at least somebody on there as a consultant for enough time that they can give you advice, or, in some cases, people have put together advisory panels of more experienced researchers to give them advice as the project goes on. You are really trying to convince the panel that if you run into trouble or if you don't know you're running into trouble, there's somebody there looking over your shoulder who could give you a hand.

Slide Thirty-seven:

DR. ALBRO: All right. You've got some final reminders here. I'll let you do these.

Slide Thirty-eight:
DR. RUBY: Okay. Please do read through the Request for Applications. We've had cases where people have applied only using the Application Package, and they have missed important points, and they are down-scored because of that. Take a look at the Request for Applications, and please do talk with your program officer or at least—and e-mail them your ideas. That is very important for them to give you a quick signal, this idea fits or perhaps this fits into another grant topic area or under another goal, and that saves all your effort from being wasted. You can apply it more productively.

And again, starting the online submission process early; it is an electronic system. It is overloaded at times. The sooner you get it going and get your full application up, the safer you'll feel that there won't be any technical problems that can cause you some dismay at 4:31 p.m.

DR. ALBRO: Right. And just so you know, all of the program staff here are researchers in their own right and have written various forms of grant applications or certainly done their own projects in the past, and so we can provide you with quite a bit of guidance as you are preparing your application.

Slide Thirty-nine:
We have our e-mail here so Allen and I can answer other questions that you might have, once we come to the end of the webinar. We will certainly forward—if you have questions about where you belong, we will forward your e-mail question to the appropriate individual.

I am going to wait just a couple minutes here. I think this is our last slide. We are going to wait a couple minutes and see if there are any other questions for us. I want to thank everyone who has been on the call so far. I think that I've had lots of good questions, and we hope that we have provided you with some good food for thought as you think about your Goal 1 applications. We will wait a couple minutes here because I know that people can't type as fast as I talk. We'll see if there are any other questions that are out there.

As former teachers, we're doing our wait time here.

All right. It looks like—I pause. I think it looks like we're pretty good here. I want to encourage all of you all, if you have questions, to please go ahead and forward them to us. If we missed anything—oh, there's one more that's come through.

"What is the notification timeline? We lost audio, and we may have missed it."

No, you didn't miss it. I didn't say anything about it. Applicants who apply June 25th, the earliest possible start date is March 1, 2010. Applicants will be notified prior to that. We don't actually have a firm and fixed timeline in part because there are many steps on our end that have to go through much of which are out of our control. Generally, applicants will be notified sometime in January so that there's time, but that is a best guess. Unfortunately, we don't have a deadline. By March 1st, you will know.

Similarly, for applications that come in October 1, the start date is early—possible start date is July 1. Applicants who apply in October would hear no later than July 1.

Oh, this was a question we had about the literature. An individual asked about whether for professional development grants, whether she needs to explore the literature on teacher professional development, on technological support or on technological support and student learning in literacy, and our response was for professional development awards, you actually need to attend to all three of the components. You will need to describe the teacher professional development piece. You will need to describe how that changes teacher behavior and teacher knowledge, and then you will also need to describe how the technological support and changes in teacher behavior are hypothesized to be related to student outcomes. I hope you heard that.

We have a question here: ***"Is there an example of a proposal under Goal 1? "***

You can make a request if there is a particular application, Goal 1 application, that you would like to see. However, I am going to caution you against asking for an example for Goal 1 in part because I think that no Goal 1s are the same.

I mean, I don't know, Allen, if you feel that way, but the Goal 1s are very, very variable as a function of the kinds of questions they are asking; the datasets they are proposing to use. I would instead strongly encourage you to reach out to the program officer for the topic area that you are working with, and they can provide you with guidance as you prepare your application. We, in fact, are available to review drafts of proposals. We can provide you feedback on the work that you are already doing, and I think that, in many ways, that may be the more efficient way to get feedback about your particular project.

All right. That looks good. I think I'm waiting. I think we're done. I can't see how many of you are still on the line. So—are still there? Okay.

I think we're done. If anyone—again, like I said, please do feel free to be in touch with us if you have other questions, and we hope that we will see lots of applications from you all.

Thank you very much. Have yourselves a great afternoon, and that's all.