

# **Guidelines for Preparing and Submitting Research Proposals**

July 1991

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*Suggestions for improving the guide are welcome.*

## **Research Proposal Process**

### **Researcher**

- Step 1. Get application form from Dean's Office.
- Step 2. Write proposal.
- Step 3. Review with Research Committee member in your department.
- Step 4. Get approval from Department Chair.
- Step 5. Send seven (7) copies to the Deans' Office.

### **Review Process**

- Step 1. Research Committee meets monthly to review proposals.  
(Principal investigator is invited to attend.)
- Step 2. Committee makes recommendations to Deans regarding funding or needed revisions.
- Step 3. Associate dean notifies principal investigator regarding the College's decision.
- Step 4. If research is funded, principal investigator meets with College budget officer to establish research account.

## Suggestions for Preparing a Research Proposal

This guide is designed specifically for those who are seeking funds from the College of Education to conduct research. The guide is based on *College of Education Research Proposal Rating Form* which is used by the College Research Committee (CRC) to judge the quality of each proposal submitted to the college. We recognize that for many, the material here may be considered unnecessary. However, we have found that time and frustration can be reduced if proposal writers or evaluators have common grounds of understanding.

### Purpose of a Proposal

We often feel as researchers that proposal writing stifles the creative process necessary to conduct good research. When we get a new idea, we want to launch it immediately. Writing a lengthy proposal takes all the fun out of the process. Somehow, when an idea is formalized in writing, it doesn't look as exciting as it once did. Perhaps, that is because as soon as we see our idea in print, we begin to ask questions about it—questions that weren't there when we first conceived of the idea. But that may be precisely why writing a proposal is so important.

If our research is to be of the highest quality possible, we need to criticize our idea before we begin collecting data. Proposal writing is thus, a refinement process in which we take a new idea and develop it into a researchable project. A good teacher would never think of beginning the first day of class without some type of course syllabus, even though the teacher and students know that there will likely be at least some deviations from the syllabus once the course has begun. Neither would a good researcher begin collecting data without some type of proposal to guide the study, even though we all know that there has probably never been a research study conducted (especially a long-term study) that precisely matched the tasks and time-line contained in the proposal.

In addition to providing a blueprint for the researchers involved in the study, a proposal is often necessary to obtain funding. In a sense, when we write a proposal to obtain funds, we are trying to convince a funding agency (in this case, the College of Education) that our idea is worth supporting, and that we have developed an effective plan for implementing the project. Regardless of where we send our proposal for possible funding, it will be reviewed by a group whose professional backgrounds vary. However, we can usually be certain that at least one of the reviewers will be intimately acquainted with the topic we are proposing, but that other reviewers'

backgrounds may only be somewhat related. Thus, our task is to convince both the expert and the novice. It is healthy to assume that someone on the review committee will be familiar with the latest research related to the topic we are proposing. But it is equally important that we give enough explanation to ensure that someone new to the topic can understand our research idea and be convinced of its merit.

### **Criteria for Judging a Proposal**

Before you write a proposal, review the suggestions in this guide. After you have completed the proposal, use the *College of Education Research Proposal Rating Form* to again check to make certain that you have not omitted anything. Knowing the criteria upon which judgment will be made on your proposal is critical.

**Statement of the Problem.** Your first task in the proposal is to explain the problem you want to address in the research. A good problem statement begins by introducing the broad area in which your research is centered and then gradually leads the reader to the more narrow questions you are posing. For example, if you are interested in comparing two types of supervisors' feedback for student teachers, you might begin by describing the disagreement that exists nationally among colleges of education on the role of the faculty supervisor. Then cite evidence that shows that most approaches focus on one or two primary techniques. And finally, lead the reader directly to the questions you are posing as you compare these two techniques, citing research showing that certain questions have been answered, but that there are critical questions (the ones your study will focus on) that have not yet been addressed.

A good problem statement is designed so that if you gave the reviewer everything in this section but the actual questions you were posing, the reviewer could write your questions for you. Everything in this section leads to the questions you are posing. In an experimental study (and even in some ethnographic research) the questions are one of the most important parts of the proposal. They should be carefully worded and measurable. If you have testable hypotheses, we strongly encourage you to write them as directional hypotheses (i.e. "High IQ students will perform better in reading comprehension than low IQ students.") rather than in the null form (i.e. "There will be no difference in reading comprehension scores between low and high IQ students."). If you have research questions, in which you are not predicting an effect or

relationship, simply label them as such and state them (i.e. “What are the effects of a child’s learning disability on the parents’ attitude toward the child?”).

After reading the statement of the problem section, the reviewer should not only have a good grasp of your research topic, but be convinced that the specific problem you are addressing is one of the most pressing problems in the field. The section need not be lengthy. Two or three pages is usually adequate for a good statement of the problem. Two words you should keep in mind as you write the section are “clear” and “convincing.” Always ask yourself, “Have I *clearly* stated what I plan to do?” and “Have I *convinced* the reviewer that there is a pressing need to conduct this study?”

**Review of Literature.** You probably already cited several recent studies in the statement of the problem, but now you have a chance to explain to the reviewer the relationship among studies in the specific field addressed in your proposal. Don’t feel a need to cite studies simply to cite studies. The reviewer wants to see a logical progression of research in the area, primarily to gain an understanding of how your study fits with existing research. If you are investigating an area rich with existing research (such as reading instruction), you will likely want to cite some of the major review articles and then cite the few individual studies which lead directly to the questions you are posing. If possible, just prior to stating the questions you plan to address in your study, it is effective to cite your own previous research to show that you are building on past knowledge and experience.

This section of the proposal need not be equivalent to the literature review chapter of a thesis or dissertation. Again, two or three pages may suffice. Your goal is not to give a description of every study that has ever been conducted in the area, but to weave a careful overview of what has been done and how your study adds to existing knowledge. It is healthy to imagine that one of the most recent researchers you have cited in your review of literature is sitting on the panel. As you write this section, ask yourself if that researcher would agree with your depiction of our current knowledge in the field and would be convinced that your study will actually be a contribution to that knowledge.

**Procedures.** It is one task to generate a research question, it is quite another to determine an effective way to answer the question. First, we must decide to use a specific paradigm or

mixture of paradigms. For example, will our project be a naturalistic or ethnographic study, a true experiment or quasi-experiment, an evaluation of a program, a survey, or a combination of methods? Each paradigm or research method has certain advantages and disadvantages and can be applied appropriately or inappropriately. The task of the proposal writer (and the rater for that matter) is to determine which method or combination of methods would be most effective to answer the research questions posed.

Once you have decided upon your general methods, you should begin to determine the specific tasks necessary to carry out the entire project. Writing a “time-line” or “person loading chart” is an effective way to accomplish this task. A time-line simply lists each task and the length of time anticipated for its completion. A person loading chart also lists the person responsible for each task and the number of days each person will need to complete the task. The value of the person loading chart is that it helps the proposal writer determine how much human support is necessary to complete the project; it also helps in the formulation of the budget. If desired, these two charts (the time-line and the person loading chart) can be combined into one chart, such as in the following excerpt:

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#### Time-line and Person Loading Chart

Task	Person Responsible	Days Needed	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Meet with school personnel to design study	Project Director	2	—							
Train Grad Student to conduct observations and administer pretests	Proj Dir	2	—							
	Grad Stud	2		—						
Administer pretests	Grad Stud	4		—						
Conduct Observations	Grad Stud	10				—				
Etc.										

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Once you have completed the time-line and person loading chart(s), you are ready to give a more complete explanation of tasks that appear in a very abbreviated form on the chart. For example, in most projects, one of the final tasks will be to “analyze the data.” In the procedures section of the proposal you should give a detailed explanation of how this will be done. If the

study is an experimental one in which one group of students or teachers is being compared with another, you should describe the specific statistical procedures you plan to use (analysis of variance, regression analysis, etc.), and how these analyses will be used to answer your specific questions. It is not enough to say, “Once the posttests have been administered, scores will be entered into the computer and analyzed using the SASS statistical program.” Rather, explain to the reviewer how the scores will be calculated (posttest scores only, gain scores, etc.), and give a description of your statistical model. For example, if you conducted a study in which students at three different schools were randomly assigned to either an experimental or control group, describe whether you plan to include “school” as a factor in the analysis of variance model.

This specifically will accomplish at least two things. It will help you determine before the study is conducted the exact procedures to use in analyzing the data, and it will also help proposal reviewers determine how appropriate they feel your methods are for the questions you’ve posed.

Although the procedures section is the heart of the proposal, it need not be lengthy. If you develop a time-line and person loading chart that communicates clearly each of the tasks you plan to accomplish, your narrative will simply amplify this chart. Thus, you should design the chart first and then write the procedures section using the chart as a blueprint. Three to four pages should be adequate.

**Proposed products.** The outcome of any research effort should be some sort of publishable product. These products should be described at the end of or directly following the procedures section. If you plan to present the results of the research at a professional conference, you should state the conference and the date it will be held. However, you should not consider a presentation at such a conference, even a national one, to be an adequate plan for dissemination. We each have an obligation at certain points in the research process to document and share our findings, however humble they may be. By this standard, a paper that is indexed in ERIC is more valuable than a paper that is presented at a national conference but never indexed. And, a paper that is published in a refereed journal is more valuable than one in ERIC, because it is more easily obtained by other researchers.

Our ultimate goal as researchers is to improve educational practice. We all recognize that something more than a presentation at a conference, or even a journal article is needed if our

research efforts are to be felt by students in the classroom. These additional products might include instructional materials, computer software, videotapes, a new hardware device, or a host of other products that may result from our research. Obviously, these products don't materialize simultaneously, but one by one over a long period of time. Since proposal reviewers may not have a long range view of your research efforts, you should explain your vision of these products and when and how they will be produced. But in this section you should emphasize the products you plan to deliver at the end of the funding period. In a sense, you should consider it a contract between you and the funding agency—and once you have delivered the promised products to the agency, you have met the terms of the contract. As you describe the products that will result from your research, first explain the audience who will receive each product (teachers, researchers, legislators, school board officials, etc.), and then describe the exact nature of the product your intended publisher (journal article, chapter in a book, instructional product, etc.). Following your description of the products, you should explain how you believe these products will influence educational practice. The ultimate outcome of any research study should be to improve the teaching and learning process. You may feel that the potential impact of your study is implicit in your statement of the problem, but most proposal reviewers need more information before making a judgment regarding the ultimate effects your research will have on education.

**Budget.** There are two parts in the budget section: the actual budget sheet listing the proposed expenses and a written narrative explaining and justifying each of the expenses. The following page is an excerpt from a budget sheet showing the appropriate level of detail for this part of the budget. Notice in the example that some expenses are being assumed by the department and some by the College. This inclusion is to show to what degree the department is committed to the project before additional funds are sought from the College.

<b><u>Budget</u></b>			
	<b>College</b>	<b>Department</b>	<b>Total</b>
<b>Personnel</b>			<b>\$2,320</b>
Graduate Intern (10 hours per week at \$9.75 per hour for 16 weeks)	\$1,560		
Undergraduate Aide (10 hours per week at \$4.75 per hour for 16 weeks)		760	
<b>Travel</b>			<b>150</b>
BYU to Highland Elementary (25 round trips at 30 miles per trip at .20 per mile)	150		
<b>Supplies</b>			<b>415</b>
20 half-inch videotapes (\$7.50 per tape)	150		
<i>Complete-Writer</i> word processing software		265	
<b>Etc.</b>			

Once you have the budget sheet completed you can write the narrative. The narrative need not be long, but should convince the reviewer that you have carefully considered each line item. For example, in the above example you should explain how you arrived at the amount of time necessary for the graduate intern and the undergraduate aide to accomplish the tasks assigned to them. You can refer back to the person loading chart, if necessary. Also explain why you think 25 trips are needed to the school and how you will use the 20 videotapes and word processing software in your research.

## Common Questions

### **Does my research have to be true experiment in order to get funding?**

No. All types of research designs are permissible. Survey research, naturalistic studies, evaluation studies, and development projects are all acceptable. However, in the case of development projects, there must be a section of the proposal devoted to the evaluation of the newly developed product. Thus, in the procedures section of a development project you will need to spend more time describing the instructional products you plan to develop than you would in a research proposal. You will also need to include in the literature review section an explanation of the materials search you completed to document the fact the instructional product you plan to develop does not already exist.

### ***What level of funding is available from the college?***

Each year the amount of funding changes, but generally speaking, you should keep your total budget under \$20,000. In the past a few projects have been funded for more than \$30,000. But the average amount is approximately \$8,000.

### ***How much time is required for the college to make a decision about funding a proposal?***

Usually you should plan on one month between the time you submit a proposal to the college and the time you receive word about funding. The CRRC meets routinely on the second Tuesday of each month. If your proposal (10 copies) is received by the first day of the month, you may hear of the funding decision within a few days.

### ***Are there certain types of expenditures that are inappropriate to include in the budget section?***

Capital equipment (such as computers), stipends to school district personnel, stipends to faculty in the college, international travel, and travel to conventions are generally not funded through the college research budget. If you view such expenditures as essential to the success of your project, you should contact the dean's office prior to submitting your proposal to determine if other funds are available for such purchases. For any expenditures which seem unusual, you may want to build your rationale in the proposal.

***Does the college encourage the inclusion of graduate or undergraduate students in the research?***

Yes. Student theses and dissertations are totally legitimate activities for the college's research funds. These dissertations should always build on current faculty research, rather than be solely conceived by the student. In other words, a faculty member, (rather than a student) must be the principal investigator in the proposed research.

***Can I submit a request to conduct a literature search before submitting a full-blown proposal?***

Unless you are proposing a comprehensive literature review article, such as conducting a meta-analysis, it is inappropriate to request funding to conduct a literature review in order to become more conversant with the literature in the particular area. These types of literature reviews are usually not expensive and are necessarily completed before writing an adequate problem statement. The department should be able to fund these types of activities.

***I want to conduct a study that will require statistical procedures I am not familiar with, where do I go to get help?***

There are faculty within the college who can provide excellent assistance as you write your data analysis section. If you are unfamiliar with these faculty, ask your department chairman for his recommendation. You can also get free consultation from faculty in the Statistics Department. Once you are ready to analyze the data, we have a graduate student in the college to help you enter your data and use statistical analysis software to get your results.

***What should I include in appendices?***

Test instruments are normally the only appropriate item to be included in an appendix. Lengthy articles and instructional materials are not appropriate. If you feel such materials are essential, you should refer the reader to them and explain how they might review them.