University of Michigan

Proposal Writer's Guide

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Foreword

This Guide is intended for faculty and staff members with little or no experience in writing proposals for sponsored activities.

I. Introduction

Writing a proposal for a sponsored activity such as a research project or a curriculum development program is a problem of persuasion. It is well to assume that your reader is a busy, impatient, skeptical person who has no reason to give your proposal special consideration and who is faced with many more requests than he can grant, or even read thoroughly. Such a reader wants to find out quickly and easily the answers to these questions.

- What do you want to do, how much will it cost, and how much time will it take?
- How does the proposed project relate to the sponsor's interests?
- What difference will the project make to: your university, your students, your discipline, the state, the nation, the world, or whatever the appropriate categories are?
- What has already been done in the area of your project?
- How do you plan to do it?
- How will the results be evaluated?
- Why should you, rather than someone else, do this project?

These questions will be answered in different ways and receive different emphases depending on the nature of the proposed project and on the agency to which the proposal is being submitted. Most agencies provide detailed instructions or guidelines concerning the preparation of proposals (and, in some cases, forms on which proposals are to be typed); obviously, such guidelines should be studied carefully before you begin writing the draft.

Two Preliminary Steps. You will benefit by consulting two persons at an early stage in the planning of the proposal: your department chair (or dean) and the Division of Research Development and Administration (DRDA) project representative who maintains liaison with the sponsoring agency you have in mind.

The department chair, whom you will eventually be asking to approve the proposal and thereby the University sign the title page. In addition, the title page usually includes the University's reference number for the proposal, the name of the agency to which the proposal is being submitted, the title of the proposal, the proposed starting date and budget period, the total funds requested, the name and address of the University unit submitting the proposal, and the date submitted. Some agencies want the title page to specify whether the proposal is for a new or continuing project. And some ask to which other agencies the proposal is being submitted.

A good title is usually a compromise between conciseness and explicitness. Although titles should be comprehensive enough to indicate the nature of the proposed work, they should also be brief. One good way to cut the length of titles is to avoid words that add nothing to a reader's understanding, such as "Studies on...," "Investigations...," or "Research on Some Problems in...."

The Abstract. Every proposal, even very brief ones, should have an abstract. Some readers read only the abstract, and most readers rely on it initially to give them a quick overview of the proposal and later to refresh their memory of its main points. Agencies often use the abstract alone in their compilations of research projects funded or in disseminating information about successful projects.

Though it appears first, the abstract should be written last, as a concise summary (approximately 200 words) of the proposal. It should appear on a page by itself numbered with a small Roman numeral if the proposal has a table of contents and with an Arabic number if it does not.

To present the essential meaning of the proposal, the abstract should summarize or at least suggest the answers to all the questions mentioned in the Introduction above, except the one about cost (which is excluded on the grounds that the abstract is subject to a wider public distribution than the rest of the proposal). Certainly the major objectives of the project and the procedures to be followed in meeting these objectives should be mentioned.

The abstract speaks for the proposal when it is separated from it, provides the reader with his first impression of the request, and, by acting as a summary, frequently provides him also with his last. Thus it is the most important single element in the proposal.

The Table of Contents. Very brief proposals with few sections ordinarily do not need a table of contents; the guiding consideration in this is the reader's convenience. Long and detailed proposals may require, in addition to a table of contents, a list of illustrations (or figures) and a list of tables. If all of these are included, they should follow the order mentioned, and each should be numbered with lower-case Roman numerals. If they are brief, more than one can be put on a single page.

The table of contents should list all major parts and divisions (including the abstract, even though it precedes the table of contents). Subdivisions usually need not be listed. Again, the convenience of the reader should be the guiding consideration.

The Introduction. The introduction of a proposal should begin with a capsule statement of what is being proposed and then should proceed to introduce the subject to a stranger. You should not assume that your reader is familiar with your subject. Administrators and program officers in sponsoring agencies want to get a general idea of the proposed work before passing the proposal to reviewers who can judge its technical merit. Thus the introduction should be detract from the proposal's chances of being approved. Probably the comment most frequently made by reviewers is that the research plans should be scaled down to a more specific and more manageable project that will permit the approach to be evaluated and that, if successful, will form a sound basis for further work. In other words, your proposal should distinguish clearly between long-range research goals and the short-range objectives for which funding is being sought. Often it is best to begin this section with a short series of explicit statements listing each objective, in quantitative terms if possible.

- If your first year must be spent developing an analytical method or laying groundwork, spell that out as Phase 1. Then at the end of the year you will be able to report that you have accomplished something and are ready to undertake Phase 2.
- Be explicit about any assumptions or hypotheses the research method rests upon.
- Be clear about the focus of the research. In defining the limits of the project, especially in exploratory or experimental work, it is helpful to pose the specific question or questions the project is intended to answer.
- Be as detailed as possible about the schedule of the proposed work. When will the first step be completed? When can subsequent steps be started? What must be done before what else, and what can be done at the same time? For complex projects a calendar detailing the projected sequence and interrelationship of events often gives the sponsor assurance that the investigator is capable of careful step-by-step planning.
- Be specific about the means of evaluating the data or the conclusions. Try to imagine the questions or objections of a hostile critic and show that the research plan anticipates them.
- Be certain that the connection between the research objectives and the research method is evident. If a reviewer fails to see this connection, he will probably not give your proposal any further consideration. It is better here to risk stating the obvious than to risk the charge that you have not thought carefully enough about what your particular methods or approach can be expected to demonstrate.

The Description of Relevant Institutional Resources. The nature of this section depends on your project, of course, but in general this section details the resources available to the proposed project and, if possible, shows why the sponsor should wish to choose this University and this investigator for this particular research. Some relevant points may be the institution's demonstrated competence in the pertinent research area, its abundance of experts in related areas that may indirectly benefit the project, its supportive services that will directly benefit the project, and its unique or unusual research facilities or instruments available to the project.

The List of References. This list is desirable only if the proposal contains six or more references. Otherwise, the references can be inserted in the text within parentheses, like this (A. N. Author, " An Article," A Professional Journal, XX [1987], pp. 45-50). (Note that brackets, not parentheses, are used within parentheses.)

If a list of references is to be included, it is placed at the end of the text proper and before the sections on personnel and budget. The items should be numbered and should be in the order in which they are first referred to in the text. In contrast to an alphabetical bibliography,

Other Relevant Experience:
U.S. Navy Engineering Officer, 1973-1979
Engineering Sales, Northrup, Inc., Detroit, 1979-1980
Consultant, Power Tools, Inc., Detroit, 1983-1985

Professional Membership:
ASME (Current Chair, Systems Commission); ASTM; I. Mech. Engr. (Fellow)

Honors and Awards:
Sigma Xi (Past President); Phi Beta Kappa; ASME Distinguished Service Award (1989); Listed in American Men of Science and Who's Who in American Education

Selected Publications:

Systems Engineering: A New Approach in Planning. New York: McGraw Hill,1988.

"Environmental Systems," Engineering Review, VI (April 1988) 121-140.

"Measurements in Systems Engineering," Proceedings of the Fourth International Symposium on Systems Engineering, Denver Research Institute, 1989, pp. 41-64.

And thirteen other publications in mechanics, heat transfer, and cavitation.

The Budget Section. The budget should be worked out with the appropriate DRDA project representative. Sponsors customarily specify how budgets should be presented and what costs are allowable. The overview given here is for preliminary guidance only.

The budget section may require not only the tabular budget (a simple format is illustrated in the sample given here) but also a budget summary and explanation or "budget justification" if the budget is complicated or if all its details are not made completely clear by the text of the proposal. The need for consultants, for example, or the unavailability within the University of an item of equipment proposed for purchase may need to be explained. Foreign travel should be specifically detailed and justified, not combined with domestic travel, and the need to travel to professional meetings should be tied specifically to the proposed project, if possible.

Typical divisions of the tabular budget are personnel, equipment, supplies, travel, and indirect costs. Other categories, of course, can be added as needed. The budget should make clear how the totals for each category of expenses are reached. Salary information, for example, often needs to be specified in detail: principal investigator (1/2 time for 3 months at $24,000 [9-month appointment]) = $4,000. If salary totals involve two different rates (because of an anticipated increase in salary during the budget period), this should be made clear.

The category of personnel includes not only the base salary or wage for each person to be employed by the project but also (listed separately) the percentage added for staff benefits. The current figure used for approximately the average cost of staff benefits is 30% of the total salaries and wages. Project representatives should be consulted on the calculation of staff benefits, because the rate may vary significantly owing to the kinds of personnel involved and the selected benefit option.A table is available from DRDA.

Graduate Student Research Assistants who are to be employed on research projects for more

Materials and Supplies			
Glassware	$200	$0	$200
Chemicals	200	0	200
Subtotal	$400	$0	$400
Travel			
Principal Investigator consultation with sponsor, Ann Arbor to Washington, D.C., and return. 1 person, 2 days			
Air Fare	$700	$0	$700
Per Diem @ $100/day	200	0	200
Local Transportation	25	0	25
Subtotal	$925	$0	$925
Total Direct Costs	$44,025	$3,900	$47,925
Indirect Costs (51.5% of modified total direct costs)	$21,643	$2,009	$23,651
Grand Total	$65,668	$5,909	$71,576

Checklist for Proposal Budget Items

A. Salaries and Wages

- Academic personnel
- Research assistants
- Stipends (training grants only)
- Consultants
- Interviews
- Computer programmer
- Tabulators
- Secretaries
- Clerk-typists
- Editorial assistants
- Technicians
- Subjects
- Hourly personnel
- Staff benefits
- Salary increases in proposals that extend into a new year
- Vacation accrual and/or use

B. Equipment

- Fixed equipment
- Movable equipment
- Office equipment
- Equipment installation

C. Materials and Supplies

their proposals on the theory that the bulk will buttress their case. Reviewers almost never read such appendices, and may resent the padding. The best rule of thumb is: When in doubt, leave it out.

Appendices to proposals are occasionally used for letters of endorsement or promises of participation, biographical data sheets (when there are too many — say, eight or more—to be conveniently placed in the "personnel" section), and reprints of relevant articles.

If two or more appendices are included in a proposal, they should be designated Appendix A, Appendix B, etc.

B. Proposals for Academic Programs

It may be that your need is not for a research grant, but for outside sponsorship of an academic program involving a new curriculum, a conference, a summer seminar, or a training activity. If so, once again your best guide in proposal preparation is to consult any guidelines that the sponsoring agency provides. In the event that none is available, however, the following outline may be followed.

The **Introduction**, including a clear statement of need, and the **Background** section, describing the local situation and developmental activities to date, should begin the request. These should be followed by a section entitled **Planning**. This section details the activities that will occur after the grant is received and before the institution of the new courses, training activities, or seminar. A **Program Description** should come next. This section lists the courses or instructional sessions to be offered, the interrelationship of parts, and the program leading to certification or a degree. It discusses the students or participants to be selected and served by the program, as well as plans for faculty retreats, negotiation with cooperating institutions, released time to write instructional materials, and so on.

Before concluding with the **Institutional Resources, Personnel**, and **Budget** sections, special attention should be given to a section entitled **Institutional Commitment.** Here the agreements made by various departments and cooperating institutions are clarified, and the willingness of the home institution to carry on the program once it has proven itself is certified. This section is crucial to the success of curriculum development programs because, in contrast to research programs, they have a profound impact on the host institution. Funding agencies need to be reassured that their funds will not be wasted by an institution that has only responded to a funding opportunity without reflecting soberly upon the long-range commitments implied.

III. Inquiries to Private Foundations

Proposals to foundations have a better chance of succeeding if they are preceded by an informal contact. This contact is usually a brief (not more than two pages) letter outlining the proposed project, suggesting why the foundation should be interested in it, and requesting an appointment to discuss it in further detail. Such a letter permits an investigator to make inquiries to several foundations at once and gives an interested foundation the chance to offer suggestions before receiving the formal proposal.

In directories and other general sources of information, foundations often indicate their areas of interests in such broad terms (e.g., higher education or social welfare) that the investigator cannot tell with any confidence whether his project will be likely to interest a particular foundation. More detailed guidance can be gleaned, however, from the foundation's annual reports and from the list of projects that the foundation has actually supported. In general, foundations are interested in innovative projects that are (1) relevant to pressing national or regional problems, (2) relevant to new methods in education, (3) capable of serving as a model or stimulus for further or related work in its general area, (4) capable of being continued after the end of the funding period without further assistance from the foundation, and (5) not eligible for funding by governmental agencies or the investigator's own institution. The letter of inquiry should highlight whichever of these characteristics best fit the project at hand.

IV. Dealing with Short Deadlines

Having the time and leisure to follow the foregoing outline methodically is something of an ideal. It is far more common to discover that a proposal deadline is only a week and a half away, your co-workers are out of town, and you're left with their classes to teach, a whole proposal to write, and a hint of the flu. If you find yourself in this situation, several niceties of orderly procedure can be slighted, but the following steps emerge of paramount importance.

First, start (don't finish) with the sponsor's guidelines. Mark them as you study, noting such things as deadline (for mailing or arrival?), number of copies, where to mail, and so on. Look for such requirements as the collection of institutional data which, were it left to last, could not be gathered. The guidelines will also probably specify certain topics or questions that must be addressed. If you can reasonably say anything at all on these topics, you should use the sponsor's exact phrases as your headings. You may even wish to borrow some of the language of the guidelines if it fits naturally into the framework of your proposal. If the sponsor is looking for "transdisciplinary" approaches to the problem, you would do well to use that term rather than say, interdisciplinary or interdepartmental to describe the same activities.

Second, after you have studied the guidelines, if there are sections that are either too vague or too specific for comfort or convenience, check with the project representative to see if she has a clarification. If she does not, she may call the appropriate program officer at the agency for you or give you the number of the person to call. In either event, two ends will be served: the project representative will be alerted to your intentions to submit, and the information you will receive will help focus further the task of preparing a rush proposal.

Third, break the proposal up into small and simple subsections--especially if more than one person will be writing. Give each subsection headings and subheadings (referring again to the guidelines), and write slavishly to this outline. Using subheadings liberally will not only help you organize your material but will also guide reviewers through your perhaps not altogether flawlessly organized narrative. For facilitating last-minute corrections in the typed copy, start new sections and major subsections on new pages, and don't number pages, except lightly in pencil, until the last step.

Fourth, compare your budget and your text to insure that for every cost figure a corresponding activity is mentioned and justified in the text.

4. The statistical aspects of the approach have not been given sufficient consideration. (8.1)

5. The approach lacks scientific imagination. (7.4)

6. Controls are either inadequately conceived or inadequately described. (6.8)

7. The material the investigator proposes to use is unsuited to the objective of the study or is difficult to obtain. (3.8)

8. The number of observations is unsuitable. (2.5)

9. The equipment contemplated is outmoded or otherwise unsuitable. (1.0)

C. Investigator (55 percent)

1. The investigator does not have adequate experience or training for this research. (32.6)

2. The investigator appears to be unfamiliar with recent pertinent literature or methods. (13.7)

3. The investigator's previously published work in this field does not inspire confidence. (12.6)

4. The investigator proposes to rely too heavily on insufficiently experienced associates. (5.0)

5. The investigator is spreading himself too thin; he will be more productive if he concentrates on fewer projects. (3.8)

6. The investigator needs more liaison with colleagues in this field or in collateral fields. (1.7)

D. Other (16 percent)

1. The requirements for equipment or personnel are unrealistic. (10.1)

2. It appears that other responsibilities would prevent devotion of sufficient time and attention to this research. (3.0)

3. The institutional setting is unfavorable. (2.3)

4. Research grants to the investigator, now in force, are adequate in scope and amount to cover the proposed research. (1.5)