As a result of the Vocational Education Act of 1963 and the Amendments of 1968, occupational educators are faced with the task of developing project proposals. Many considerations when writing a proposal are pointed out in this document. It is noted that a proposal is not likely to be accepted unless it indicates that the applicant agency is capable of carrying out the project. Major steps in planning a project include identifying and designing the problem, planning for evaluation, and planning administrative details. A discussion is presented regarding each of the necessary parts of the proposal. These include a statement of the problem, a review of the literature, rationale, objectives, procedure, resources, budget, plans for dissemination, application form, abstract, and summary. This would be a useful document for persons developing project proposals in occupational education as well as in other fields. (GEB)
Planning and Developing Project Proposals

For Occupational Education

Prepared By

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October, 1969

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PLANNING AND DEVELOPING PROJECT PROPOSALS
FOR OCCUPATIONAL EDUCATION

INTRODUCTION

As a result of Congressional action in 1963 and again in 1968, research and development activities in occupational education have been evaluated to equal status with administrative, instructional, and teacher education activities. The Vocational Education Amendments of 1968 (PL 90-576) not only encouraged research and development, but also authorized substantial appropriations for such activities as comprehensive training in research, program planning for students with special needs of various types, innovative programs for preparing youth for work, planning and implementation of exemplary programs, curriculum development activities, research projects, and dissemination of findings from research and/or innovative programs.

Never before have occupational educators had such opportunities for creative planning. Never before have occupational educators been faced with such a challenge to depart from traditional approaches and to seek effective ways of providing occupational education for all types of students. Already there is ample evidence that occupational educators at all levels welcome this challenge as an opportunity to seek solutions to some old problems and to test new ideas.

This new challenge has created for local educators the need for a type of competence once reserved primarily for researchers. Funding agencies must look to the proposals submitted for evidence that the applicant agency has the capabilities for carrying out a proposed project and contributing to the furtherance of educational technology. It is essential, then, that any
proposal for a project be developed with the utmost care. A good idea can easily be lost in the competitive struggle for research and development funds if it is proposed in a document which is poorly written or if the proposal is based upon inadequate planning.

There are no guaranteed methods for obtaining research and development funds. The probability of a favorable review of the proposal can be greatly increased, however, by following certain procedures in planning the project and writing the proposal.

Research projects vary from relatively simple procedures carried out by a teacher in his classroom to sophisticated procedures which require a high degree of research competence and a sizable staff. Developmental projects also vary greatly in size and complexity. Both approaches start with a problem or an idea. Both require a sequence of essential steps for "thinking through" the problem and determining a rational course of action.

Through this logical process of studying a problem and considering alternative solutions, the problem itself emerges with clarity, procedures for obtaining the desired information are selected, and methods for analyzing the information so that it can be interpreted in relation to the problem are identified. This planning should involve appropriate personnel at each stage, in order to utilize a wide range of viewpoints and specialized competencies throughout the planning process.

The local educator who competes for research and development funds in order to promote effective educational research or development activities in his agency would do well to select his planning team with care and then provide ample time for the process described on the following pages.
TYPES OF OCCUPATIONAL EDUCATION PROJECTS

The types of projects which are currently being proposed for Federal funding under occupational research funds include: (1) training programs, (2) experimental, developmental, or pilot programs, and (3) research studies. The type of project to be proposed influences, to some extent, the remaining stages of the planning process. Project planners need, therefore, to be aware of the distinguishing characteristics of the various types in order to make a decision early in the planning process on the type of project to be developed.

Training programs "should represent a new dimension in the preparation of vocational and technical educators," according to Coster (1966, p.6). The training program should be truly innovative, rather than merely a modification of an existing program. The plan for a training program should emphasize content, present a rationale which supports the appropriateness of such content, show how the content is to be organized, and adequately reflect its distinctive or unique features.

Experimental, developmental, and pilot programs may be designed for a school or for individuals, depending upon the type of problem. An experimental program requires the planning of procedures in considerable detail, with provision made for revisions in the program of activities during implementation if it appears advisable. A developmental program usually has as its primary objective the development of instructional materials, a new curriculum design, or other products of the processes which make up the plan of activities. A pilot program would be planned in great detail, with little or no provisions for modifications during the implementation phase; based on principles which have already been subjected to experimental study, its purpose is to demonstrate the effectiveness of certain procedures and practices.
Research studies, according to Coster (1966, p. 7), "... have in common tightness and adequacy of design, adequate delimitation of the scope of the study, adequate attention to procedures, and the selection of appropriate methods of analysis and test statistics." Research may be in any one of several possible forms, such as a historical study, a descriptive study, a predictive study, an analytical study, or a sample survey.

Any of these types of programs may be innovative, exemplary, or both. An innovative program is one which is characterized by uniqueness and a truly new idea. Innovative ideas must be developed into some kind of action plan, tried, and evaluated. Exemplary by definition pertains to pilot programs—model programs which can serve as a catalyst for bringing about the adoption of tried and tested ideas in other educational settings. For funding purposes, however, any of the above types of programs may be viewed as exemplary.

PLANNING THE PROJECT

Any idea or problem can provide the nucleus for planning a project. The initiator may be an individual or a group with a common concern or interest. In either case, the planning of a project should be a team effort in which those persons participating in each stage of the planning process possess the type of competence needed at that time. Thus, appropriate utilization of resources requires flexible team structure, with some shifting of personnel at various stages of planning.

Each planning stage is characterized by analytical thinking, by conscientious decision-making in the light of available information, by selection from a number of alternatives, and by appropriate utilization of available resources. Decisions should be viewed as tentative, however, until the planning process has been completed. Each successive stage may
reveal inadequacies in the previous stage which require reconsideration and revision of some earlier decisions.

It is especially desirable to check the decisions and plans of each stage against those of previous stages for consistency and logical thought progression. For example, in attempting to select appropriate procedures for evaluation of the project, it may become apparent that the objectives are not sufficiently clear. Or, on checking back it may appear that the plan of activities is not entirely consistent with the objectives.

This backtracking to revise and clarify the plans made in previous stages should be viewed as a refinement process, rather than as lost effort. The final plan will be improved by such revisions. The planning team, then, should expect to retrace some steps as a result of checking each stage against all previous stages.

Once the planning process has been carried through to completion, the minutes of the discussions can be culled for final decisions on each component of the total plan. The careful writing required for the proposal document is time-consuming; hence, it is more economical of time to defer such writing until final decisions have been made rather than revise the proposal after it has been prepared.

The planning phase proceeds through several stages, each requiring that decisions be reached on certain questions. The stages discussed on the following pages are: (1) identifying the problem, (2) designing the project, (3) planning evaluation procedures, and (4) dealing with administrative details.
Identifying the Problem

This stage is concerned with certain questions which must be answered before planning can proceed to the next stage. These answers provide the basis for decisions which set the framework for the remainder of the planning phase. The questions to be discussed include the following:

- What is the basic problem?
- How can the problem be narrowed down so that it can be dealt with effectively?
- What information is available that is relevant to the problem?
- What efforts have others made to deal with this or similar problems?
- What terms must be defined in order to avoid ambiguity and/or misinterpretation?

Who should be involved in this discussion is dependent upon the type of problem. Numerous points of view, perhaps from each level in the organization, can be valuable in identifying the basic problem. Representatives from a variety of disciplines can be helpful in obtaining an objective analysis of the problem situation. As the discussion proceeds, new insights may shift the focus of concern or may reveal that the apparent problem is only a superficial manifestation of a more basic problem. Therefore, adequate time and effort should be allotted for full discussion of the problem situation. On the other hand, proceeding through this stage without adequate discussion can lead to a plan based on a superficial problem or to time-consuming revisions in the plan when the basic problem becomes clear in later stages.

The initial statement of the problem may undergo several revisions, but once agreement is reached on the basic problem to be studied, the framework for the project has been established. Discussion of the problem should have clarified its importance and significance, as well as the need for its study.
The statement of the problem is usually somewhat general. Hence, there should be discussion and then decisions made on the scope and limitations of the study. These decisions will set the stage for a search of relevant literature. It may be desirable to explore the dominant theoretical positions related to the problem in addition to examining case studies which focus on the same or similar problem. Becoming familiar with the approaches which have been used by others enables the planning team to avoid needless repetition and, possibly, certain pitfalls. In some cases, it may prove desirable to replicate a previous study; in most cases, however, a new or different approach will be sought.

From the statement of the problem and the review of the literature, the rationale for the project can be developed. The rationale may be thought of as the next link in the chain of reasoning which leads logically from the problem to a proposed solution and procedures for testing it. The rationale may be briefly stated, or it may be lengthy and highly theoretical. Coster (1966, p.5) noted differences in the rationale according to the type of study:

- In more basic studies, the rationale consists of the theoretical statement that the initiator wishes to test. In applied research, the rationale consists of an operational statement or the proposal. In experimental, developmental, and pilot programs, the rationale consists of a descriptive statement of the innovation. The rationale essentially is a transition step in the chain of logic in which the initiator bridges the gap between the previous work and the objectives of the proposal in which we conceptualize the basis of the problem.

The rationale leads logically into the objectives of the project. The objectives may be elaborated as questions to which answers will be sought, as ideas to be tested, or as procedures which will lead to a product.

The objectives evolve naturally from the planning team's efforts to clarify the problem, to develop a statement of the problem, to assimilate a body of information on relevant theoretical positions and research, and
to establish the scope and limitations of the project. The statement of objectives should adequately reflect decisions in the direction of the project, should delimit what procedures will be appropriate, and should provide a basis for evaluation of the project.

**Designing the Project**

In designing the project, the planning team must seek answers to such questions as the following:

- How shall we attack the problem?
- Is there a previous effort which appears worthy of further study? If so, should it be replicated or modified?
- What new approaches appear feasible for studying the problem?
- What procedures would be required for each possible approach which is being considered? How much time would each require?
- Which approach seems most likely to provide meaningful information relevant to the problem?
- What resources would be needed? Which of these would be readily available? Would unavailable resources be needed?

Obviously, the decisions made on these questions precede any detailed planning of the procedures of the project. Once the decision has been made on the approach to be used, then numerous decisions must follow regarding the details of the plan of procedures for fulfilling the objectives of the project.

In a training project or a developmental project, the design may consist of a generally innovative approach with full development of a detailed plan as one of the project objectives. In research, however, the design consists of precise plans by which a sample would be selected, variables controlled or manipulated, and hypotheses tested.

Essentially, then, the design consists of a plan of action—what is to be done, who will participate, what resources will be used, when the
activities will begin and end, what effects will be measured, and how the project will be evaluated. Thorough evaluation procedures are in actuality part of the design; this stage of planning is of such importance, however, that it calls for separate discussion.

Planning for Evaluation

Planning for evaluation procedures requires discussion of various ways to measure the effectiveness of the procedures planned in the preceding stage for dealing with the problem identified in the initial stage. Essentially, the following questions must be considered:

- How shall we determine the effectiveness of the procedures?
- What measurement tools are available which would help determine whether the objectives have been fulfilled and to what degree?
- What measurement tools will need to be developed?
- What standards should be established for judging the changes which occur?
- How will the results be reported? What use will be made of the results?

The evaluation procedures for a project often prove somewhat difficult to work out. Yet, this phase of the project is crucial to a reliable judgment on the effectiveness of the approaches used to study the problem. Plans for evaluation must include procedures for collecting information and identification of the criteria which, when applied to the information, will provide a measure of effectiveness.

If the project is concerned with a product, such as a curriculum plan, then stated criteria can be applied to evaluating such a product. In a research project, however, evaluation will consist of statistical procedures for analyzing the information collected.
Planning Administrative Details

Ideally, a project should be planned and then resources found to carry it out. Therefore, this discussion has focused on the problem and how to deal with it. Administrative aspects cannot be ignored, however. Hence, the following suggestions are offered for dealing with administrative problems necessary for implementation of the project.

Resources for the project include personnel, physical facilities, and equipment and supplies needed for implementation, evaluation, and reporting of results. Personnel with the competencies needed for carrying out all procedures within the project should be identified partly to insure availability and partly to determine the salary level which must be established. The responsibilities of each participant should be fully defined and the amount of time each will devote to the project should be specified. Past experience of each participant should be documented in sufficient detail to reflect competence to perform the assigned responsibilities and to justify the salary level being requested.

Physical facilities, equipment, and supplies should be specified in sufficient detail to guide the selection of a site for the project and to determine costs involved. It may be desirable to develop a full list of equipment and supplies, and then denote which items are already available and which must be acquired. The funding agency may or may not accept expendable supplies in the budget; therefore, project planners should be aware of whether or not such supplies must be obtained from other sources. Also, it may or may not be permissible to prorate costs for space and equipment which the applicant agency plans to allocate the project. The guidelines provided by the funding agency should be specific in these points. Some agencies specify a percentage input for the applicant and accept prorated allocations in that percentage.
The planning team will find it helpful to include someone from the administrative staff at this stage of planning. Procurement of personnel and materials and the development of a budget require specialized skills which are distinctly different from the skills needed for designing the project per se.

Plans for personnel should include some or all of the following:
- The project director
- Clerical assistants
- Research assistants
- Interviewers
- Personnel to implement the program of activities
- Consultants

Plans for physical resources should include office space, site for any program of activities and/or for staff conferences, equipment (office, instructional, special), and supplies (for project activities, correspondence, and preparation of the final report).

Planning should also include consideration of such costs as travel, subsistence allowances, contractual services, statistical services, and fixed charges for all personnel on salary.

DEVELOPING THE PROJECT PROPOSAL

While planning should be a team effort, the actual writing of the proposal document is best accomplished by one or two persons. The finished document, however, should represent accurately the combined thinking of all participants in the planning phase. Usually, it is advantageous for several members of the planning team to review the first draft and contribute suggestions prior to submission of the final draft to the funding agency.
The format of a proposal varies somewhat according to the requirements of the funding agency. Some agencies provide very specific instructions, while others offer only general guidelines. The proposal writer should be thoroughly familiar with the instructions provided by the agency to which the proposal is to be submitted and should adhere carefully to every requirement.

Although the exact organization of the narrative section of the proposal document will be determined by agency guidelines, the content will usually consist of the following elements:

1. The statement of the problem
2. Review of literature
3. The rationale
4. Objectives
5. Design (or Procedure), including plans for evaluation
6. Resources
7. Budget
8. Plan for dissemination
9. Application form
10. Abstract

Decisions made during the planning phase provide the main elements of each section, with adequate detail to give the reader a clear view of the problem and how it is to be approached. Each proposal writer must decide what points to emphasize, which sections to present briefly, and which sections to present in detail. Coster (1966, pp. 11-12) offered some positive suggestions and some points to avoid in preparing a proposal, which are included in the Appendix. The suggestions on the following pages are intended to assist the proposal writer in deciding appropriate detail for each section.
Statement of the Problem

The general statement of the problem is presented very early in the proposal, followed by supporting statements on the importance of the problem, its significance in occupational education, the need for a study or project, and who will be served by the findings. These supporting statements may establish the scope and limitations of the project; i.e., the manageable aspect of the general problem. Essentially, this section presents the view of the writer (or project team) on the problem and its relevance to occupational education, with professional opinion and legislative mandate as supporting documentation when appropriate.

Review of Literature

The review of literature may be included as a separate section or may be used for documentary statements woven into other sections. Whether stated separately or interwoven with the problem statement or rationale, the project team's familiarity with previous work in the area of the problem under study should be reflected in the proposal.

The proposal document presents enough of an overview of what other workers have reported on their studies of the problem to document the need for further study of the problem. If the problem is relevant to one or more theories, these should be summarized with, possibly, a brief statement about any opposing theoretical positions of importance. Research studies should be presented briefly, emphasizing that aspect of each study which is informative about the problem or supportive for the proposed project.

Rationale

The rationale presents the line of reasoning developed as the planning team proceeded from identification of the problem to a decision on the direction
of the project and the procedures to be followed for its implementation. This line of reasoning should present the research and theoretical basis for the framework of the project. It is particularly important that a developmental project or an exemplary program reflect findings. Essentially, the rationale argues for the idea or design suggested in the proposal; it may also show the basis for rejection or other possible approaches.

Objectives

The objectives of the project should show specifically what is to be accomplished or investigated. They should also indicate whether the study is to be an experiment, a survey, a study of relationships, an exploratory development of a program, the implementation of a pilot or demonstration center, or the development of instructional materials or a curriculum design. Although this list is not exhaustive, it is provided to illustrate that the objectives should clearly reflect what is to be done.

The wording of the objectives will vary according to the type of project; e.g., questions for which answers will be sought, the product to result from certain procedures or processes, or predictions (hypotheses) about what would occur under certain circumstances. Regardless of the form selected, the objectives should indicate the direction of the project, that approaches to be used, and the basis for evaluation of the project. What is to be accomplished must be explicit; how it is to be accomplished and the standard for judging the degree of success may be either implicit or explicit. It is currently fashionable to imply how a judgment can be made about whether an objective has been fulfilled by stating "behavioral objectives" or "performance criteria."

If the study is an experiment or an attempt to establish relationships between variables, the hypothesis should be included in this section as a
Procedure

The procedure section shows the design of the project. It describes what will be done, how it will be done, what resources will be used, the context within which these activities will be carried out, and the duration of the activities. For training projects and developmental or pilot projects, the emphasis would be on content (activities or procedures) and utilization of resources. Although these types of projects are not as amenable to detailed descriptions as other types, the project team does have the responsibility to specify what will be done, how many persons will be involved, and in what manner professional personnel, facilities, and equipment will be utilized. In addition for exploratory and exemplary projects, it must be specifically shown how the project will be evaluated. The evaluation section is of utmost importance in determining whether such a project will be renewed or possibly moved into a pilot operation.

For a research project* (e.g., experiments, relationship studies, surveys) this section should include detailed descriptions of (1) the variables, defined in operational terms; (2) the sample or population; (3) the design; (4) the instruments to be used in data collection; (5) the method for data collection; and (6) a plan for data analysis. It may be desirable to show the work breakdown and time sequence of the project by a modified PERT** approach.

*See List of References for additional sources of assistance in developing a research proposal.

**Program Evaluation Review Technique
This section should enable the reviewer to evaluate adequacy of planning. It should not be so detailed that flexibility is sacrificed, in that minor modifications in procedure often become necessary or desirable during the implementation phase of the project.

In describing project design, the proposal writer should emphasize the innovative or exemplary nature of the plan of activities and should show why and how the results could have implications for other contexts and/or for educational technology. These two characteristics -- innovation and generality -- are considered by many reviewers to be necessary requirements for funding a project.

The plan for evaluation should be described in this section also, unless agency guidelines indicate a separate section. The plan for evaluation in a research study would be the statistical procedures to be used in analyzing the data and the level of significance viewed as necessary for a test of the predictions made. For nonresearch projects, it is necessary to specify the criteria by which the effectiveness of the project will be measured and the tools which will be used for measurement. Whenever possible, measurement tools should be selected which provide for quantification. When qualitative differences must be considered, then the criteria should be stated in terms which facilitate objectivity by the evaluators. For projects of a training or developmental type, the plan for evaluation may include ongoing procedures in addition to final measures of effectiveness. The plan for evaluation should be relatively specific about how, when, and by whom evaluation procedures will be carried out.

It should be kept in mind that criteria are derived from objectives. A single objective may contribute only one criterion or it may contribute an entire list, depending upon how general or how specific its wording is.
Some objectives may be explicit about the standard by which the degree of fulfillment can be measured; others may simply imply what the standard will be.

**Resources**

The resources for the project are described under the headings of (1) personnel, (2) facilities, and (3) equipment and supplies. The qualifications of personnel should be described in sufficient detail to indicate competence for the type of participation proposed for each. Supporting detail on qualifications may be quite brief for a small project; for a large or complex project, however, it is generally desirable to provide greater detail on the educational and experimental background of each key person on the project staff. It is often desirable to utilize consultants of recognized competence for the planning stage and to include in the proposal specific plans for further utilization of consultants during implementation and evaluation phases. If the names of consultants are included in the proposal, written consent should be secured as well as a statement of willingness and availability for such participation.

The site for the project should be specified. If a location must be obtained, then criteria for its selection (particularly amount of space required) should be developed and realistic estimates of overhead costs should be made for inclusion in the budget.

Equipment and supply lists should be sufficiently comprehensive to allow freedom in implementation of the project, yet should not reflect carelessness or irresponsibility in planning.

**Budget**

The budget is usually shown on space provided in the application form. An additional sheet for justification of some items may be desirable,
especially if large amounts are being requested. It is commonly recognized that the budget is, at best, an estimate of costs; therefore, provision is usually made for minor adjustments during the implementation phase.

Plains for Dissemination

The plans for dissemination of the results of the project should be described briefly. A final report to the funding agency (and made available to interested persons) is a minimal expectation. Some funding agencies require progress reports at intervals; some expect any product of the project to become the property of the funding agency, while others view such products as within the public domain. The project team should understand the copyright policies of the agency to whom the application is being submitted. The plans for dissemination may be minimal or may be so broad as to include publication in professional journals or the use of mass media. It should be kept in mind that dissemination and/or publicity are not limited to reports of "successful" projects. It is just as important to share information on approaches which are not viewed as completely satisfactory as it is to report results viewed as fully satisfactory.

Application Form

The form for making application for funding of a project is supplied by each funding agency; some are relatively simple while others are quite detailed. Each section should be carefully studied and the appropriate information supplied. There is a tendency for applicants to misread such forms and supply the wrong information. Therefore, if a section appears ambiguous, clarification from appropriate persons should be obtained prior to completing the form.
Abstract

After the narrative portion of the proposal has been written and the application form completed, an abstract should be prepared. The purpose of the abstract is to summarize the pertinent information of the proposal. It should be limited to one or two pages and should consist of the following:

1. Title of the project
2. Project director and amount of time director will allocate to the project
3. Dates project will start and end
4. A brief statement of the problem and its relevance to occupational education
5. Objectives of the project
6. A brief statement of the proposed procedures
7. A brief statement of the contributions the project is expected to make to occupational education
8. Plans for utilization of findings

The abstract serves as the front sheet for the proposal document. The importance of the abstract cannot be overstated in that it introduces each reviewer to the proposal. It can have the effect of arousing interest or creating doubt on the quality of the proposal.

Summary

The project proposal is essentially in three parts: (1) the narrative section which has been described; (2) the application form which calls for specific information; and (3) the abstract.
LIST OF REFERENCES


APPENDIX

- Some positive suggestions for the preparation of proposals

- Some points to avoid in preparing proposals
SOME POINTS TO AVOID IN PREPARING PROPOSALS*

1. Don't write in terms of generalities. Avoid such phrases as "It has been written," "It is a well-known fact," and "This is a new and unique idea."

2. Don't start the proposal by the tearing down process. All that has happened in the past is not wrong or inadequate. Build on the good, the sound, the known. Show deficiencies or weaknesses which are of interest in the proposal, but use those elements as appropriate points of departure for the study.

3. Don't try to include everything in one proposal. Delimit and select the important elements which represent the greatest concern.

4. Don't delimit the generality of the project. The locale of the study should be somewhat incidental. The selection of the schools, if not selected randomly, should be made on the basis of representativeness to a number of comparable schools throughout the state or nation in which the innovation might have possibilities.

5. Don't assume knowledge of the problem on the part of the reader or proposal reviewer.

6. Don't build a project around a single instrument or even a group of instruments.

7. Don't use the "4(c) funds" (Vocational Education Act of 1963--PL 88-210) to support instructional programs that should be carried out as part of the ongoing occupational education program. Do apply for support to innovate, develop, evaluate, and demonstrate.

8. Don't expect a small idea to carry a large budget in a developmental, pilot, or experimental program.

9. Don't fail to budget for specialized personnel, if needed.

10. Don't extend the duration of a project for an unnecessarily long period.

11. Don't be hasty. It is better to miss the deadline than to have a proposal disapproved.

12. Don't ignore the instructions of the funding agency, such as the U.S. Office of Education as in its Condition and Procedures, OE-4262.

*Coster, 1966, pp. 12-13
SOME POSITIVE SUGGESTIONS FOR THE PREPARATION OF PROPOSALS*

1. Start with a significant problem or innovation, and build a logical and coherent chain of reasoning and experiences for the statement and elaboration of the problem through the objectives, procedures, and evaluation. State exactly what is to be done in a straightforward manner.

2. Delimit the problem to a manageable part of the area with which the problem is concerned, but demonstrate generality.

3. Show the experiences from which the problem evolved, present an, analyze relevant studies, and state the rationale or model which is to serve as the basis of the study.

4. State the objectives succinctly.

5. Detail the procedures to denote clarity at each step.

6. Show that the treatment to be used, the training program to be offered, or the innovation are significant, appropriate, and operationally feasible.

7. Use an appropriate design which will permit the testing of hypotheses and the control of extraneous variables, with adequate attention to populations and samples.

8. Work out a complete plan of evaluation and measurements. Show how instruments are to be constructed, if new instruments are needed.

9. Integrate objectives, hypotheses, procedures, and evaluation.

10. Show adequacy of personnel. Use consultants where needed. Specify names of personnel, and avoid large scale listing of qualified specialists who have not been contacted to serve as consultants on the project. List completed studies and publications of key personnel.

11. Price the project judiciously.

12. Show how results are to be disseminated.

* Coster, 1966, pp. 11-12