



Chapter 1

THE NATURE OF RESEARCH

Research involves original work in answering a question or solving a problem. Of the several different research approaches available, this book focuses on those approaches which can be applied to solve questions or problems that are directly related to everyday life. The technique of community involvement in practical issues is often called action research. In this chapter, you will find an overview of the steps needed to develop an action research plan. Common errors that are made in the research process are discussed, from the perspective of both insiders and outsiders to the community.

Research is by definition original work, a searching to answer a question. The popular concept of research can involve, for example, just looking up some statistics in a book. A more formal definition of research would be:

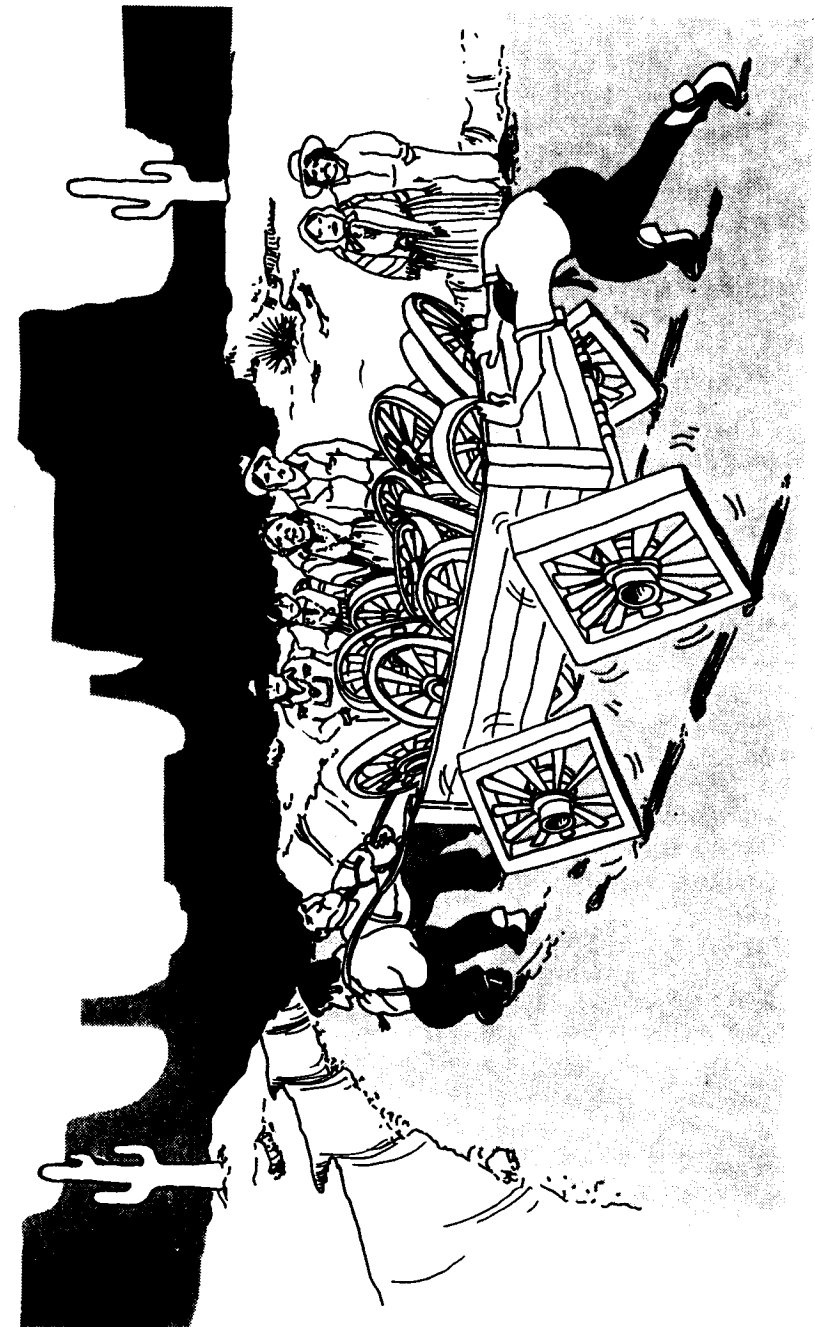
Studious inquiry; usually, critical and exhaustive investigation or experimentation having for its aim the revision of accepted conclusions, in the light of newly discovered facts.

(Webster's New Collegiate Dictionary)

Let's look at what this definition implies on the community level. It sounds as though research requires a lot of work. Although research usually is time consuming, it need not be dull. Particularly, if the work is going to be applied to a community need, research can be very exciting. Research involves defining the topic, idea, or problem to be solved and forming a specific question about that topic. The work of other people is examined to see if the question has ever been researched, or if the work of others can contribute to the new question. The methodology, or way the work will be done, is set out in steps. The data are collected, and analyzed (or looked at in detail), and conclusions are reached. This is the "studious," "critical," and "exhaustive" part of research.

The data for research can be from primary sources, where the researcher observes directly and records events or data. This type of data has many advantages as to reliability. The researcher knows the kind of effort put into collecting the data, how the participants in the study were chosen, and something about the possible biases during the study. The disadvantage of this type of data is that the process is time consuming and often expensive. With secondary sources, the researcher uses data reported by others. This approach is less time consuming, but sometimes also less reliable. For many research questions, both types of data are utilized and for some questions there are no existing secondary sources of data. The methods for research described in this handbook focus on the direct collection of data for analysis.

Today is a time of enormous possibilities for applied research. At one time, people were brought into a system, and problems were defined according to the views of those who saw the "problem" and with the resources of a dominant culture. Now, priorities can be determined by a community that lives the socio-economic conditions, rather than by an outsider who studies the community for informational purposes. And ideally, insiders and outsiders can work together cooperatively, sharing knowledge and resources toward a common goal. Rather than assessing the statistics of low income, educational levels, and health levels over and over again, research can be used to evaluate the effectiveness of innovative and culturally-based techniques for alleviating these problems.



Cultural differences may affect the outlook of some persons toward research. It has been noted¹ that the underlying nature of research as a process that continually questions first and seeks to prove facts, may be at odds with cultural beliefs that express --- in trust first, and question later only if there is a need. Tensions that develop during research are sometimes due to cultural differences. Or, people of the same culture sometimes hold different views about documentation or development. Cooperative research relationships are open to discussion and compromise about these differences.

DIFFERENT TYPES OF RESEARCH

There are many different ways to approach a research question. Researchers from different areas of study develop different methods to focus upon a particular aspect of the question. These are a few of the things to consider in choosing an approach:

- * Topic/ issue/ concern
- * Purpose of the project
- * Resources (such as time, people, funds)

In discussing the topic with a community group, it is sometimes helpful to take notes on these items as a topic is discussed. This process enables the group to reach agreement as to the purpose of the project and to assess the resources that will be needed to complete the project. Then, the methods to accomplish the work must be chosen. The research methods covered in this handbook are descriptive in nature and may be applied for community use.

Descriptive Research

The purpose of descriptive research is to describe accurately situations or events, such as the characteristics of a population, a social condition, or a particular topic. In the process of descriptive research, data are collected and summarized, but relationships between sets of data and predictions are not usually defined. Descriptive research is one of the more basic types of research, requiring fewer research skills, yet is a very valuable tool for community development. Most of the techniques presented in this handbook could be termed descriptive, in the broadest sense of the word.

The steps that are generally taken in a descriptive project include the following:

1. Defining the topic or the goals of the project

2. Locating work that has been already done on the topic, to decide if the particular topic has been researched or if existing material can contribute to the present study
3. Defining the objectives of the project, or steps to the project in a clear, straightforward way
4. Deciding upon the methods that will be used to accomplish the objectives, such as how the data will be collected, how the participants will be chosen, training of the personnel needed to collect the data, and how the data will be examined.
5. Collecting the data according to the plan,
6. Examining the data according to the plan,
7. Reporting the results.

On the community level, descriptive research techniques such as surveys and needs assessments can be valuable in describing current socioeconomic conditions, to identify conditions in need of improvement, and to document the opinions of community members as to how these changes can be put into effect. A few examples of descriptive research projects are:

- * A needs assessment conducted to determine unmet health care needs in a rural community
- * An evaluation of a social service program
- * A survey of native language use to determine the extent of continued use of the language
- * A photographic project to document the pottery making process

In the chapters that follow, methods that are presented for conducting needs assessments, evaluations, surveys, and culture and fine arts projects, are descriptive in nature. These same methods provide the foundation for analytical research, and can be taken further if the reader desires to look into the additional sources provided for each chapter.

Action Research

The purpose of action research is to develop new approaches to solve questions or problems that are directly related to everyday life. A very practical approach, action research is aimed toward applications of the research results through a constant exchange between the researcher and the people or events being researched. Action research differs from most research approaches in that changes often occur in the original research methodology when these changes are documented as part of the results.

The steps that are generally taken during action research include:

1. Defining the goals of the project, according to a needed change or improvement,

2. Examining the work of others, to see what approaches to the problem have already been tested,
3. Defining a specific question to be asked, the methods to be used to address the research question, and the methods for determining progress or change as the data are analyzed,
4. Conducting an inventory of existing human and material resources at the community or local, and regional levels,
5. Determining the way the community or program will provide input as to the direction of the project and whether changes are needed in the original plan,
6. Collecting the data,
7. Examining the data,
8. Reporting the results, including a description of the data and any changes in the methods
9. Implementing a plan to apply the results for community use.

Some examples of descriptive/action research projects are:

- * A needs assessment to identify educational program needs, to be applied to expand educational resources and to improve existing resources
- * An evaluation of a new treatment approach for substance abusers which combines traditional and western healing methods, for the purpose of documenting a model program for future widespread use
- * A survey of the socio-economic characteristics of several communities, used to develop comprehensive planning for community services
- * An oral history project which provides teaching materials for community level programs

The chart showing the flow of activities in a research project, Figure 1.2, represents the descriptive/action research process.

Other Types of Research

The techniques presented for your use in this handbook are primarily descriptive methods. These methods can be used for action research, and often historical methods are utilized in gathering data to describe the situation or problem. There are several other types of research methods (see descriptions in Figure 1.3) and these will be mentioned only briefly.²

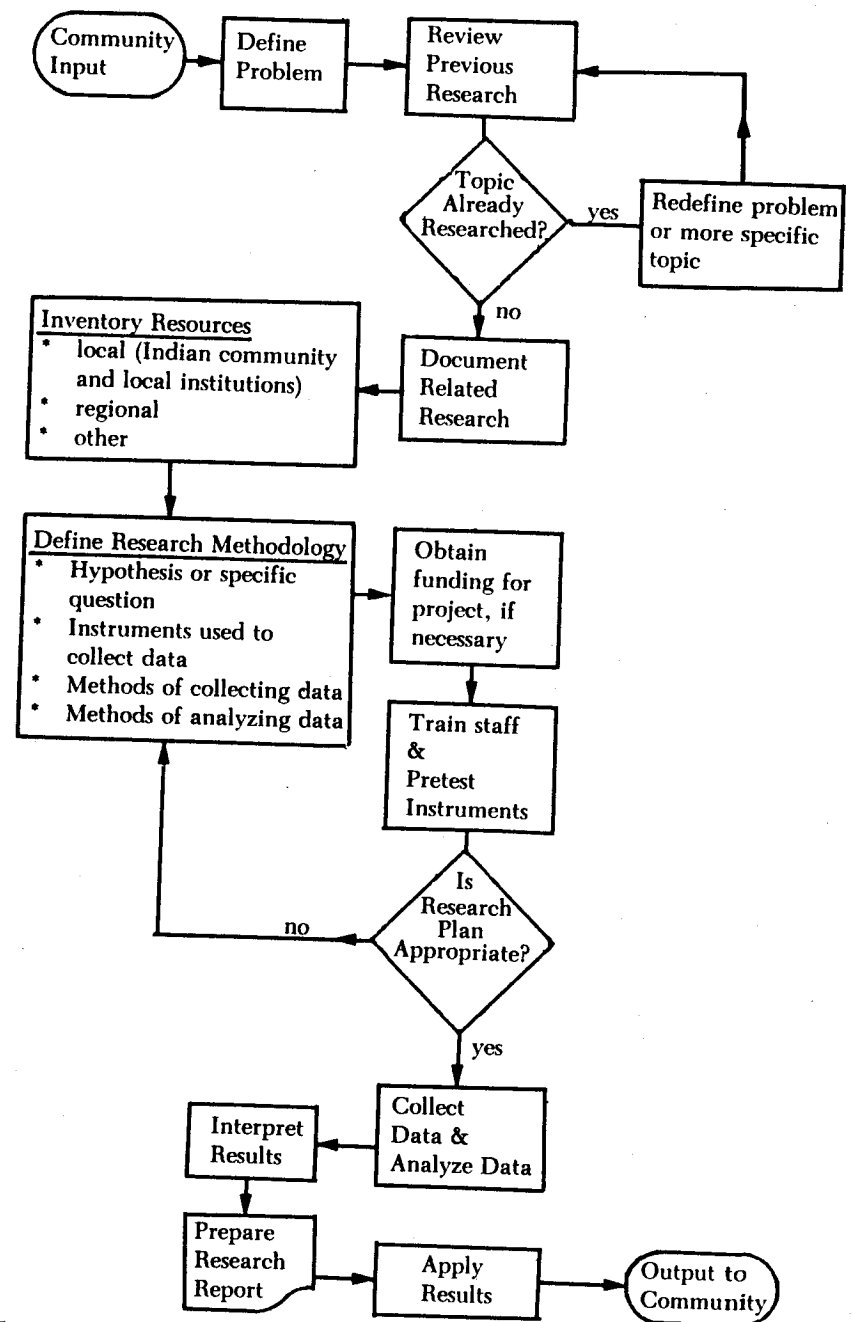


Figure 1.2

FLOW CHART OF ACTIVITIES FOR COMMUNITY-BASED RESEARCH

Figure 1.3 ADDITIONAL TYPES OF RESEARCH

TYPE	METHOD
HISTORICAL	The purpose of historical research is to reconstruct past events. This can be accomplished by collecting and interpreting data in an objective or unbiased way. Data can be from primary sources (research observes directly) or from secondary sources. If secondary sources are used for the purpose of data collection, these sources must be evaluated for accuracy and bias. External criticism is concerned with whether the document is authentic, or "Is it real?" Internal criticism asks if the data are accurate and meaningful to the topic. Oral history is a method particularly useful for Native American communities.
EXPERIMENTAL	Experimental research looks at cause-and-effect relationships by comparing two or more similar groups, usually chosen by random selection. This is accomplished by including an experimental group undergoing a new treatment (e. g. educational, social service) approach, and a control group not receiving the treatment. In this way, the two groups are compared and the effectiveness of the new approach can be evaluated. Emphasis placed on internal validity asks the question, "Did the experimental approach really make a difference?" For the purpose of external validity, the question, "Can the results be generalized to other populations?" is considered. Data are collected during the present, defined timeframe of the project. The experimental design can be particularly valuable for research and demonstration programs, where the effectiveness of model programs is tested.
QUASI-EXPERIMENTAL	The quasi-experimental (meaning "as though" experimental) approach requires less control over the conditions of the treatment setting. Although accuracy is less reliable than the experimental approach, the gained flexibility often fits the applied, community program better. The method is useful when such steps as the random selection of subjects to groups is not possible. Decreased control over variables, or the conditions that vary, usually results in limitations of the approach in making generalizations about other populations.

TYPE	METHOD
CAUSAL-COMPARATIVE	Causal-comparative research explores cause-and-effect relationships by observing an effect and collecting data after the fact, to explain causes. Provides a more practical method than the experimental in situations where it is not always possible to randomly assign groups, yet carries many disadvantages with the lack of control. If a relationship appears between two variables using this method, it is difficult to determine which is cause and which is effect.
CASE STUDY	With case study, the researcher examines in great detail a broad range of items concerning a small number of individuals, groups, or communities. The purpose is to describe and explain the relationships in a social situation. This method seeks to describe a single situation, rather than to generalize about other social situations.
DEVELOPMENTAL	In developmental research, patterns of growth or change are studied over time. A method used often for educational and psychological research, addressing such questions as patterns, directions, and rates of growth, as well as variables affecting change. Cross-sectional studies measure change at one point in time, by comparing different age groups. Longitudinal studies follow the change in one group over time.

THE PARTS TO A RESEARCH PLAN

The research plan, or research design, is an outline of the steps needed to carry through a research project. There are several reasons for developing a research design. First, the completed design serves as a planning step for the project. Second, the research design is a means of documenting the research to gain acceptance and support of the project in the community. And third, the research design forms the basis for a proposal to gain funding for a project if needed. What follows is a general outline or introduction to the items that are usually included in a research design. Further detail on specific methods for research and the structure of a research proposal are presented in the chapters that follow.

The Problem Statement

Research begins with an idea that leads to a question. What needs to be documented, evaluated, or tested? The topic or question to be examined is often referred to as the **research problem**. In defining the research problem, one of the more difficult tasks is narrowing the topic down to a manageable project. The well defined research problem provides a plan that is possible to complete and to apply for specific purposes. In descriptive research, the problem definition tends to describe a process or an expected outcome. For example, a research problem may concern a desire to evaluate a new substance abuse treatment method in order to improve effectiveness of service delivery within a community program. Or, a community group concerned with decreased basket-making might define the problem as a need to document traditional basket-making techniques for use by future generations. The problem statement may contain an hypothesis, or an assumption about the relationship between events or facts and certain results or outcomes. An example of an hypothesis would be: "Children who participate in bilingual education programs will make greater gains in academic achievement during the first five years of school than will children who do not participate in such programs." When using descriptive research techniques, there are more limitations placed on showing relationships than if the project goes beyond this level to analytical research.

The problem statement generally contains the following types of information:

1. A background of the research interest in the problem
2. A description of the population or community involved
3. A clear definition of the topic or question, and
4. Reasons why the topic is important

Once this information is clearly defined, the researcher can proceed to more specific goals and objectives of the projects.

Review of Related Literature

For all areas of research, the first place to start designing the project is to find out what previous researchers have learned about the chosen topic. This review serves several purposes. It enables the researcher to gain an understanding of what is known about the topic. This knowledge can help him to narrow the research topic in a manner specific enough to be explored through the research process and provides basic information about the topic. Duplication of a research topic is less likely to occur when the research conducted previously is known. Another purpose of the

literature search is to locate ideas on research designs, data collection instruments, and methods for data analysis. Suggestions for needed research are often given by authors of research reports. Using other research work for ideas can greatly increase the resources for the project. For example, if the chosen topic is an economic survey of a particular community, the literature search could focus on historical and other studies of the community or tribe, economic studies in general, and survey studies in general.

Locating research material is a time-consuming task. Time can be saved by using computerized services, which search for references according to the topics that you provide. There are several libraries nationally with specialized collections of Native American materials. The later chapter on **LIBRARY AND INFORMATION SERVICES** contains lists of computerized search services, major library collections, and bibliographies on different topics. Upon starting, if the task of locating references looks enormous, remember that each reference located usually contains other related references in its bibliography. Soon, the collection of materials on the topic grows and the researcher is better informed about the topic.

In locating published or unpublished studies relating to the research topic, it important to review them with a critical eye. If a study is published, this does not mean that the study was without flaws in the research design or in the conclusion, or does not contain bias. Skills in interpreting research develop with practice. One common mistake made in reviewing literature related to the research problem is to concentrate on findings and overlook information on methods, data collection instruments, and other references. In reviewing research studies, it is often helpful to construct categories under such topics as the type of study, the population, the methods used, and the type of criticism. Sorting out comments provides an organization to the material that is invaluable when the review of the related research is written up for the research report.

Since a considerable amount of time may pass from the first readings of materials until the review of related literature is written, a common practice is to record notes on each of the references. Some researchers use index cards for these notes. The type of information usually needed includes the bibliographic detail (title, author, publisher, publisher's address, year of publication), comments on the study design, summary of findings, and notes on criticism of the study. Tape recorders are also convenient time-savers for taking notes.

Learning the skill of the literature review is a useful tool for gaining information in a number of non-research situations. For example, a program administrator may locate already existing socio-economic data useful for program development or testing instruments for program implementation through a search of the literature. Information gained

through this process can be of great benefit in the decision-making situations of community leadership.

Goals and Objectives

Once the research problem is defined, the goals and objectives further narrow the scope of the project. Goals are long-term, more general outcomes that the project hopes to accomplish. For some projects, it is practical to distinguish between ends-goals and means-goals. Ends-goals describe the end product of the project; whereas, means-goals define processes or the means for accomplishing the goals. As an example, and ends-goals might be stated as: "The project will evaluate the effectiveness of a new employment training technique by measuring the change in employment skills, stress levels, and employment record of participants after completion of program." Particularly in action research, the involvement or training of community persons may be an important means-goal of the project. Including such means-goals is a way of planning for reciprocating or giving back to the community for its cooperation in the effort. Services or treatment offered as a part of the research and demonstration project may also provide the basis for a means-goal.

Objectives are the more short-term steps that will be taken to accomplish the goals. The outstanding feature of an objective is that it must be measurable. For example, an objective would be: "To admit a minimum of 100 participants to the demonstration program over a one year period, with a completion rate of 60% of those client group." This objective states two items that can be assessed during the research process 1) admitting a minimum of 100 participants, and 2) completing a minimum rate of 60% of those clients through the program. Other specific objectives for a project can be used to establish criteria for determining client progress or program success. For example, "To reach an employment rate of 50% for those clients completing the program" could be an objective for measuring success. Such specific criteria aim toward a concrete assessment of conditions at the end of the project.

The Methodology

The methodology section of a research design describes the methods that will be used to carry out the project. The complete plan for carrying out the research design is an invaluable guideline once the project has started, and time well invested at the start. A brief overview is given here for the items that are usually included in a methodology, with specific descriptions for different research approaches to be found in later chapters.

An explanation of the research approach to be used (e.g. survey, needs assessment, evaluative, fine arts) ties in with the goals and objectives of

the project. Selecting the correct research approach to accomplish the goals is a skillful decision. Documenting the reasons for selecting the particular approach helps the researcher to think through the selection of methods. Sharing these reasons with others who will participate in or support the project can also lead to ideas for improvement.

The sample or group of participants in the study is important to outline. What characteristics are emphasized for study? For example, the sample can range from the general population of adults in a community to a specific treatment group. How will the sample be selected? A representative sample is critical to the conclusion of the findings. That is, are the findings representative of the whole community or client group?

Another item to consider in working with participants concerns the measures that will be taken to protect their privacy and rights. Sometimes called procedures for protection of human subjects, these procedures can cover such items as privacy of individuals, physical protection (as in a therapy program), and protection of the data collected.

The methods of data collection relate closely to the research approach. The important variables, or information items that vary with individuals (e.g. age, sex, occupation) are defined and an appropriate method of collecting data (e.g. questionnaire, program intake, interview) is outlined. The complete research design includes sample instruments to collect data, such as a questionnaire, interview form, or a format for recording observations. These are expected to be preliminary in nature, and are revised or further developed after the project begins. If special equipment is needed, such as tape recorders or cameras, these are described along with their purpose in the data collection.

A description of the plans for the data analysis ties in with the methods of data collection. How will the resulting data be summarized or examined in order to address the original research question? Will statistical techniques be used? Is computerized data processing necessary? Are consultants needed to assist with the data analysis? These are some of the decisions that are needed to plan for the necessary resources.

An outline of the personnel needed is a practical item to include in the research design. This item usually includes an outline of the qualifications and the responsibilities, as well as the amount of staff time required. This would include both paid staff and volunteers. An inventory of local community expertise can include a consideration of how, when, and where these resources will be utilized in the planning and implementation of a project. Once local resources are identified, then determination can be made as to the type of cooperative relationships that may be necessary with outside consultants or other expertise. Including personnel from within the community helps to avoid the creation of a "vacuum" in the planning and implementation process, which often occurs when the outside consultant leaves the project. The best of research plans may sit on a shelf if the resources needed to complete the project are not available.

A timetable for the completion of the research design not only provides an aid for planning out the steps of the project, but also serves as a guide for staff training during the project.

The project budget is a necessary detail to complete for most research situations. One of the more common mistakes made during a project is the undertaking of a project too lengthy or expensive for the available resources. When each of the items in the methodology is worked out in detail, a realistic budget can be planned. Then, if the needed budget does not fit the available resources, it may be wise to go back to the problem statement to decide if a narrower focus is needed.

Expected Results

In looking over a research design (or plan), a reviewer asks the question, "What will result from the project?" The results can vary from a language grammar, to an improved treatment methodology, to a data bank of socio-economic information for planning purposes. For the action research project, an important part of the methodology concerns the application of research results. How will the community or program participate in the decision-making process? How will the results be used by the community? What resources are needed to apply the results? If the results are to be applied for community use, the expected practical applications of the project should be described in the research design.

The distribution plan for the written or recorded results is another item to include. This is an often overlooked step that can lead to lack of funds for distributing an otherwise useful product. A research project creates information and this information must reach the people involved, if the project is to have practical applications on the community level.

BIAS IN RESEARCH

All persons are carriers of their own cultural beliefs and are prone to bias. Whether the researcher is working within his own culture or with another culture, there are certain concerns that can minimize bias.

- * Assumptions being made by the researcher because of prior cultural knowledge can be questioned. For example, an outsider to the culture may make assumptions about similarities or differences to his own culture, without looking at these carefully to see if they exist. An insider may assume cultural knowledge when differences may exist between groups within his culture.
- * Assumptions are sometimes made by the participants about the researcher's prior knowledge. For example, if the researcher is of the same culture, important details may be left out of an interview be-

cause of assumptions made about the researcher's knowledge of his culture. Or, if the researcher is of another culture, the participant may either assume too much knowledge or assume an extreme lack of knowledge on the part of the researcher and give up on the communication.

- * Methods of sampling and choosing participants are subject to bias. For the outsider, choosing the more available or volunteer participants can be more convenient than seeking out the needed representative sample. While the insider may gain access to information by choosing friends or relatives as participants, care must be taken that these persons are representative of the culture. It is sometimes impossible to avoid the reality of factions. Often, bias can be minimized by including participation and recommendations from the key leadership among such factions.
- * Instruments used to collect data can contain bias. Although use of previously developed instruments can save a great deal of time for a project, these should be examined carefully for bias. In particular, instruments that assess attitudes or intelligence may contain cultural bias. In designing instruments, the wording of questions and the depth of the topic may be culturally sensitive. Researchers from both inside and outside a culture can influence the responses of participants with their point of view through subtle wording of questions. Gaining opinion from a culturally balanced committee or pretest group is a step to guard against this type of bias.
- * Interpretations of the data to reach conclusions are sometimes influenced by personal or cultural bias. For example, although the data can be collected in a thorough manner and the summaries or statistical applications calculated correctly, the emphasis placed on certain results can be either too great or too small. This would influence the importance placed on certain variables in the outcomes.

One dominant culture position regarding bias in research holds that only outsiders to a culture are free from the bias that could prevent an objective study. This argument is sometimes used to support the idea that minority researchers are not qualified to conduct research within their own culture or community. Of course, if this argument were carried to its extreme, then only minority researchers would be qualified to conduct research within the dominant culture. A more moderate view holds that the insider, through cultural learning, may have an extra degree of training. This inside knowledge can often lead to a more in-depth definition of the research problem. For example, a research topic may require cultural

perspectives or insights that require expertise in an Indian language, or sensitivity to socio-cultural concerns that only an inside person can provide or understand. There are advantages as well as disadvantages, then, to working within one's own culture.

Minority researchers are now identifying some of these advantages and disadvantages. In one study³, a minority researcher compared acceptance and social distance during research with a community of her own ethnic group and with a different group. The researcher found that social distance changed throughout the research period. While initially there was ready acceptance in the minority community on the basis of common ancestry, social distance increased as the respondents became critical of the goals, the content, and the methods of the research. As an outsider working with a religious community, the same researcher found suspicion and mistrust at first and then a continual increase in cooperativeness throughout the research period. She arrived at the conclusion that a minority researcher is not any more free from problems than a white researcher attempting to carry on a project in a minority community.

Social distance and bias are factors to be dealt with in any research situation. Throughout this text, methods for dealing with them are suggested. In particular, working with a representative advisory committee can assist the researcher in maintaining the balance of social distance needed to gain acceptance while conducting an objective study. When cooperation with the advisory committee is continued through all stages of the research process, the chances of reducing bias are greatly increased.

COMMON ERROR IN THE RESEARCH PROCESS

Since research by definition involves asking a new question or solving a problem that has not been addressed before, every research project is different. Even the most experienced of researchers often finds "trouble spots" during the research process. It is helpful to learn what possible problems might arise and watch for these. This partial list of the more common mistakes made during research may be useful in designing the research plan.

Completing the Research Design

1. Problem statement too vague to develop a specific plan
2. Objectives not stated in measurable terms
3. Neglecting to review the related literature to prevent duplication of effort
4. Failure to define assumptions in designing the research plan
5. Bias enters into the wording of research questions

6. Failure to define research population
7. Sampling techniques not clearly outlined
8. Plan not developed for the distribution of results
9. Expected results not described
10. Plan not developed for implementing or applying project results, for action research

Carrying Out the Methodology

1. Goals of the project too ambitious for projected time period and budget
2. Failure to locate previously tested data collection instruments for ideas or direct use, before investing time to develop an instrument for data collection
3. Design of data collection instrument before deciding techniques for analysis
4. Data collection instruments selected for use contain cultural bias
5. Using data collection instrument not appropriate to collect the types of data needed to address the research question
6. Data collection instrument lengthy, where a shorter format would be sufficient
7. Pretest of data collection instrument not conducted
8. Language used in the data collection instrument that is not understood by participants
9. Data collected without following a research plan
10. Timetable not developed for pacing project activities
11. Staff training inadequate for data collection procedures
12. Sampling not representative
13. Responsibilities of staff not clearly defined
14. Reliance on consultants rather than hiring qualified staff, or especially qualified persons from the community
15. Spending too little time in establishing rapport or good communications with participants
16. Struggling a long time to solve problems, when the assistance of a consultant is needed
17. Not pacing the expenditure of funds, running short of resources needed to complete the project
18. Not conducting follow-up on incomplete data
19. Neglecting advice of advisory committee
20. Relying heavily on the advice of one or a few advisory committee members, cancelling out the representative feature of the committee
21. Data not kept confidential

Final Reporting

1. Failure to recognize influences on the program outcomes (such as leadership, staff, program structure, outside intervention), other than the new program approach or methodology
2. Displaying results of statistical calculations without interpreting and relating them to the study
3. Final report contains excessive amount of data, rather than a discussion of the trends or findings
4. Final report lacking discussion of conclusions
5. Complete report of budget expenditures lacking
6. Failure to apply results to community development, when so specified in original research plan

PRACTICAL APPLICATIONS OF RESEARCH RESULTS

This handbook is concerned with techniques for practical research that involves community people. In the past, the prior notion of applied research often consisted of outsiders to the community defining the problems and determining the solutions, or applications of the results. The development attitude toward minority communities often implied certain cultural biases in the decisions regarding the direction of change. Community participation in cooperative research relationships increases the sharing of decision-making.

Another belief sometimes held, about applied research is that the research can be conducted and then just applied afterward. These are several of the reasons research results often were not applied, along with suggested solutions for improvement:

1. Research topic not specific enough to yield the kind of data needed to address a community problem.
(Solution: Community participation in the definition of the research problem and the methods for research.)
2. Research results not made available to community.
(Solution: Distribution plan included in research design, funds allocated to distribute copies free-of-charge to community, and data bank left for community use.)
3. Research results written in language not easy for community to understand or use.
(Solution: Two different reports written if necessary, one for research audience and one for community use.)

4. Resource not available for applying results.
(Solution: Resources written into the research plan, such as funding for a demonstration program, or extra months of salaried staff time for designing an implementation plan.)

In action research, provisions for applying the results are made a part of the research plan. One form of continuity to the research plan is a demonstration program that is likely to be continued if the research approach is successful. Another is staff time to complete planning. Once one project is completed, the research staff may build upon the findings and develop a related project. For example, a fine arts project may later expand to further projects and then to the establishment of a museum. Building and keeping cooperative channels for research can further the resources of the community.

The chapters that follow present different research methods and some general techniques for data analysis and presentation. In particular, the last chapter on COOPERATIVE EFFORTS FOR RESEARCH outlines suggestions for establishing the kind of research relationships that benefit everyone participating in the research process. Following the vision of increased research potential from within the community, this material is presented from a practical viewpoint.

NOTES

1. Personal communication, Lenor Stiffarm, Ph.D., American Indian Studies Center, UCLA, (1981).
2. For more detail on these and other approaches see Stephen Isacc, *Handbook in Research and Evaluation: Borg and Gall, Educational Research: An Introduction*; Leedy, *Practical Research: Planning and Design*.
3. A comparison of social distance and acceptance in the minority researcher's cultural group versus a different group is given by Minako Kurokawa Maykovitch, "The Difficulties of Minority Researchers in Minority Communities," *Journal of Social Issues*, Vol. 33, No. 4, 1977, pp. 108-119.

ADDITIONAL SOURCES

Isaac, Stephen and Michael, William B., *Handbook in Research and Evaluation* (San Diego CA: Edits Publishers, 1971).

A very useful text, this handbook presents short, clear descriptions of: 1) the steps involved in formulating a research problem, 2) basic methods of research, 3) examples of different research designs, 4) developing instruments for measurement,

5) statistical techniques, 4) writing research proposals and reports, and many other details of research process.

Borg, Walter and Gall, Meredith Damien, *Educational Research: An Introduction* (New York: Longman, Inc., 1979).

Although intended for research in the field of education, this book presents information that is useful and basic to many different types of research. Areas covered include: reviewing the literature on a topic, survey research, the selection and administration of test in educational research, evaluation research, experimental research, correlational research, historical research, statistical analysis, processing research data, preparing the research report. This is an intermediate level, well-written textbook.

Hamiton, Anita, *Research as a Tool in Problem Solving at the Community Level* (Washington, DC: Government Printing Office, 1976).

This report on an example research project is a problem-solving approach to upgrading the quality of children's services through a study on children being excluded from school. The techniques for problem solving include: defining the problem, analyzing the problem, setting up objectives, finding the means to reach the objectives, organizing data, planning work, and working the plan. An introductory text with examples.

Hardyck, Curtis, and Petrinovich, Lewis, *Understanding Research in the Social Sciences* (Philadelphia: W.B. Saunders Company 1975).

A guide to evaluating research studies and methods, analyzing data according to several different statistical approaches, and preparing data for calculations by computer. An intermediate level text.

Leddy, Paul D., *Practical Research: Planning and Design* (New York: Macmillan Publishing Company, 1974).

The title of this book describes the contents well, for the basic steps in planning a research project, the methodologies of four different approaches (historical, descriptive, analytical survey, and experimental) are outlined in detail, and ways of presenting the research results are explained. The sample proposal for a research project demonstrates how these elements are put together for a research design. A valuable introductory to intermediate level text.

Morris, Lynn Lyons and Carol Taylor Fitz-Gibbon, *How to Deal with Goals and Objectives* (Beverly Hills: Sage Publications, 1978).

Although this text focuses on goals and objectives for educational research, the information presented is also valuable for other fields. Topics include: how to write objectives, sources for finding examples of educational objectives, and how to assign priorities to objectives. Written at a beginner to intermediate level.

Rothman, Jack, *Planning and Organizing for Social Change* (New York: Columbia University Press, 1974).

This book is intended to convey basic social science research knowledge to social planners and community workers, especially in the fields of community mental health, social work, public health, community development, public administration, and adult education. The content concerns the application of research findings to practical aspects of community action and planned social change in order to deal with contemporary social problems. Particularly valuable topics to the community research effort are those covering models of research utilization and suggestions for bridging the social distance between social scientists and community practitioners. Specific sources for applied research are mentioned (including journals, articles, and books) with excellent bibliographies on different fields of social science research.

Spector, Paul E., *Research Designs* (Beverly Hills: Sage Publications, 1981).

This introduction to the basic principles of experimental and nonexperimental design covers, at an intermediate level, the steps involved in constructing a research plan. Topics covered include basic concepts essential for an understanding of design, the basic logic of design, one-group designs (pretest-posttest designs, time series designs, correlational designs), multiple-group designs (posttest, pretest-posttest, time series), and factorial designs (to use several independent variables and determine their combined effects on a dependent variable). The author provides several social science examples of research topics using these designs and discusses the limitations of each design. Publications listing is: Sage University Paper #23, Quantitative Applications in the Social Sciences series.