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Factors related to the utilization of needs assessments in Ohio colleges and universities

Yoon, Jung Sook, Ph.D.

The Ohio State University, 1990

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FACTORS RELATED TO THE UTILIZATION OF NEEDS ASSESSMENTS 
IN OHIO COLLEGES UNIVERSITIES 

DISSERTATION 

Presented in Partial Fulfillment of the Requirements 
for the Degree Doctor of Philosophy in 
the Graduate School of The Ohio State University 

by 

Jung Sook Yoon, B.S., M.A. 

***** 

The Ohio State University 
1990 

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DEDICATION

In loving memory of my late father,
Jae Hwan Yoon
ACKNOWLEDGEMENTS

In the Korean tradition, I first acknowledge the loving support of my family. They have been far removed geographically, and they have been a living presence during my years in the U.S. I particularly acknowledge my mother, Chae Bong Yoon, and my late father, Jae Hwan Yoon.

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CHAPTER I
INTRODUCTION

Statement of Problem

Brief Recent History of Needs Assessment: Needs assessments became widespread in American education in the 1960s. There were two major stimuli: (a) large-scale federal programs requiring that needs assessment be conducted in funded programs and (b) the development of the accountability movement (Witkin, 1975).

Federal program requirements were a major stimulus to the growing acceptance of both needs assessment and program evaluation (in general, needs assessments were conducted at the beginning of a project, while evaluation would occur at the end of the program). Congressional leaders wanted to know which programs were working and whether dollars spent yielded results sufficient to justify those dollars. Further, they wanted to establish that state and local offices were proposing programs for federal funds that would be politically acceptable to citizens and responsive to client needs. Commonly, funds were made available only if needs assessments and program evaluations were utilized.
as a means of ensuring that effectiveness and responsiveness criteria were met.

The Elementary and Secondary Education Act (ESEA) of 1965 was a major example of a federal program that had a needs assessment requirement. ESEA mandated that needs assessment plans be provided when local education agencies competed for federal funds. ESEA stimulated the states to set up centers to assist local educators to manage their federally funded programs. Such centers were encouraged to conduct needs assessments for the school districts they served (Witkin, 1975). While the ESEA requirements were unevenly met, they did create widespread awareness of the concept and of its possibilities for promoting effective planning.

The accountability movement also was affected by developments in state governments (Witkin, 1975). As the states spent larger and larger percentages of their budgets on education, legislators demanded that local schools be sensitive to what citizens desired and to what was needed to promote student learning. Needs assessments were seen as a means of collecting such data.

The National Assessment of Educational Progress (NAEP) was one illustration of a needs assessment activity in which federal and state governments collaborated. Federal funding and federal-state leadership created a mechanism
for obtaining data on the educational achievement of large, scientifically selected, elementary-secondary samples. The data have been used by the states to determine the effectiveness of their education systems, by local districts to compare their effectiveness to other districts, and by federal education officials to focus national attention on perceived deficiencies in U.S. education.

The NAEP approach has yielded usable data. It secured from all states, achievement test scores for selected grades (elementary through secondary) in varied subjects and areas. The study results stimulated individual states to conduct needs assessments to determine how their national ranking in achievement could be improved. After collecting data for several years, NAEP has created a massive history of needs assessments and achievement scores (Lewis, 1977). NAEP has provided data that could be used by citizens and officials who were concerned about achievement levels in their states or interested in learning if the data could suggest programmatic changes that might improve achievement (e.g., changes in funding, teacher requirements, testing, and the curriculum).

The NAEP's longitudinal data base has been utilized extensively to determine the needs of special populations. One significant example has been the analyses of minority
student achievement vis-a-vis that of the majority students. When minority students' achievement levels have been found to be deficient, remedial actions could be implemented. As another example of this type, if differences were found between male and female students, studies could be done to determine why they occurred and what could be undertaken to eliminate them. NAEP collected substantive and demographic data to permit many kinds of analysis; those about females and minorities are illustrative.

The accountability movement was a response to citizen demands that their views be reflected in plans to solve social problems (Witkin, 1975). Citizens wanted their desires and views reflected in educational goals, objectives, and programs. Needs assessments were a way to identify community desires and to determine whether students were mastering academic objectives effectively. Needs assessments helped to develop both short- and long-term goals and were valuable inputs into the process of setting priorities.

**Purposes of Needs Assessment**: Cross (1983) stated that "Ultimately, the single overarching purpose that we hope pervades all reasons for conducting needs assessment is to discern the educational needs of potential students so that
we may serve them better, and through them, better meet the learning needs of our collective society" (p. 196). Her statement implies that the data gained through needs assessment can reflect the potential needs of students and, in turn, that better services for them can be provided.

Program planning is the most common reason for conducting needs assessments. Needs assessment is the first step in program planning in that discrepancies or needs are identified and priorities set. The information obtained becomes a critical basis and focus for program planning. Numerous writers (Witkin, 1975; Witkin, 1984; Chapin, 1984; Suarez, 1985) have noted that the importance and value of needs assessment have been widely recognized as a component of a planning strategy or as a step in planning resource allocations.

Needs assessments are considered as a mechanism to enable schools to be more responsive to citizens' demands for accountability in terms of student achievement, expenditures of tax dollars and other educational concerns. Suarez (1985) pointed out that needs assessments are conducted to help educational institutions be accountable for their efforts. In such cases the most common form of needs assessment is mandated large scale assessment of student performance outcomes. School administrators and
other educators can be held accountable for meeting students' outcomes and for spending money wisely.

Needs assessment can be valuable in evaluation. The Center for the Study of Evaluation at the University of California, Los Angeles (UCLA) regards needs assessment as a type of evaluation and the first step in the evaluation process (Witkin, 1974). Stufflebeam (1973) considers needs assessment as a part of a series of evaluation procedures in his Context, Input, Process, and Product (CIPP) model. Context evaluation provides the broad basis for identifying and setting priority needs of students or of educational systems. The prioritizing process yields goals and objectives for a program to serve as a baseline against which to compare outcome evaluation (product evaluation).

Regardless of the purposes, the underlying issue of all the purposes is to make better decisions for educational improvement in a given setting.

Needs Assessment Components: Determining the discrepancy between what is and what should be is the cornerstone of needs assessment (Witkin, 1975, 1984). Although there are some variations in steps and components, the complete discrepancy-based model generally includes five components. Goal statements are first, followed by determination of actual achievement status, analysis of discrepancies
between goals and actual status, analysis of causes of the discrepancies, and the determination of identified priority needs. The components provide step-by-step actions to delineate needs.

Considering the precision of a sound needs assessment and its potential contributions, it seems sensible to assume that needs assessment results have been widely used. The literature reveals, however, that research studies on needs assessment utilization are limited (Robins, 1982; Chapin, 1984; Witkin, 1984).

The Meaning of Utilization and Its Extent: Success of a needs assessment study to a great extent depends on the degree of utilization of its results. Suarez (1985) stated that the utilization is an important characteristic of needs assessment studies. Kimmel (1977) and Witkin (1984), on the other hand, noted that there is not much evidence on the actual utilization of needs assessment results.

In measuring utilization of evaluation, writers differ about the definition of utilization. The traditional definitions emphasized the documentable and direct utilization of the results of needs assessment and specific decisions or actions. Often such direct use cannot be found. Alkin, Daillak, and White (1979) in their study on
utilization of federal level mental health program evaluation stated that if such a "cut-and-dried standard" is used, utilization seldom occurs. They noted that utilization can be a relative concept and different levels of use can occur, from altering thinking and attitudes of decision makers to making actual decisions. Support for a broad definition of use has been growing. Patton, Grimes, Guthrie, Brennan, Grench, and Blyth (1977), Patton (1986), Alkin et al. (1979), and Weiss and Bacuvalas (1980) concluded that research information is more often used in a conceptual sense than in direct and concrete ways.

Using the broader approach, Alkin (1985) and Leviton and Hughes (1981) summarized three categories of utilization:

1. Instrumental use, in which specific uses can be documented, for example, in a policy decision or decision to fund a program.

2. Conceptual use, in which a decision-maker's thinking is influenced but which does not result in a specific decision or a tangible action which can be documented.

3. Persuasive (or symbolic) use, in which evaluation studies are used to seek support for a decision-maker's policy or action or for a decision not to take some action.
Robins (1982), adopting the broad definition suggested by Patton et al. (1977), Weiss and Bacuvalas (1980), and others, investigated administrators' perceptions about utilization of needs assessment in human service agencies. She found more support for needs assessment use than had previously been reported. For example, in her study it was indicated that over half of the needs assessment were characterized as very useful in the overall operation of the agency, and about one-third were judged to be very useful for decision-making.

Even though evidence of needs assessment utilization increases with a broader definition, utilization seems to be limited. Needs assessments are costly. If the information is not fully considered by decision-makers, needs assessments do not attain their maximum potential and are a waste of dollars and other resources.

Utilization is to be the dependent variable in this study and will be considered in the broad conceptual sense as well as the traditional concept of use (direct, immediate, and documented). Persuasive uses (Symbolic uses), however, will be excluded since some symbolic use is or may be inherent in the conduct of any needs assessment activity. Also primarily persuasive uses of needs assessment deal with political issues and endorsement of
personal policies which are beyond the scope of this exploratory study.

Factors Affecting Needs Assessment Utilization: Even with broad definitions of needs assessment use, that use seems limited. Bickel and Cooley (1981) reported several factors that affected needs assessment utilization: timing, identification of a single client, a design to increase utilization, characteristics of the users, political considerations, methodology of research, credibility of the data, and report styles. Chapin (1984) and Witkin (1984) identified similar factors such as administrative support, staff turn-off, lack of a plan for utilization, poor communication, and others in the needs assessment process.

It is important to study factors affecting utilization of needs assessment in order to increase utilization, but little research has been done (Chapin, 1984; Witkin, 1984). The study to be proposed will examine these factors using the two-communities perspective as the conceptual framework.

Two-Communities Perspective Affecting Utilization: The most prevalent theory about non-utilization of the research in the literature may be characterized the "two-communities" theory (Caplan, 1979). Considerable
difference of opinions exist about its meaning and interpretation. Some researchers referred to it as the two-communities theory (Caplan, 1977, 1979) whereas Rothman (1980) referred to the "two-worlds" model. Rich (1979) called the two-communities approach to studying the differences between researchers and decision-makers a hypothesis rather than theory.

Dunn (1980) provided a clear discussion about the two-communities approach and calls it a metaphor:

1. It is not a theory, for it lacks the characteristics of a theory (clear definitions of terms, "empirically testable statements that are propositional in form").
2. It is a metaphor, "a constructive analogy that permits observers to make claims about knowledge (non)utilization..." (p. 515).

The two-communities perspective—whether it is a theory, a model, or paradigm—is widely supported. Caplan (1977) forcefully noted the power of the two-communities theory, claiming that "...theories of under-utilization with the greatest degree of explanatory power are those which emphasize the existence of a gap between social scientists and policy-makers due to differences in values, language, reward systems, and social and professional affiliations" (p.194).
Factors Identified in the Two-Communities Perspective

1. Methodological Quality of Needs Assessment: According to the two-communities perspective, decision-makers and needs-assessors view a needs assessment from different premises and values. Needs-assessors are trained to value the reliability and validity of data in making decisions about a program. To provide accurate and objective information, needs-assessors may spend considerable time and effort in determining appropriate sampling procedure(s), method(s) for data collection, and data analysis. Also, they expect decision-makers to be sensitive to the technical and methodological quality of the effort.

On the other hand, decision-makers may not view the methodological quality of a study as important in using its results. They may see the search for reliability and validity of data as not that valuable in making decisions, especially in light of limited resources and severe time pressures. They may be more concerned about cost-effective aspects of methodology and feasibility within their organizational goals. For example, decision-makers may use results as long as they support a vested position in regard to organizational constraints despite the limited quality of the actual study.
Bickel and Cooley (1981) supported this position, noting that sophisticated techniques can be less important in influencing utilization than substantive knowledge of educational structure, and politics.

2. The Report Style: The gap between the two communities may also result from report style. Many writers (Brown, Braskamp, & Newman, 1978; Brown & Newman, 1982; Thompson, 1982) have observed that the style of the report is a vital factor in its utilization. Rothman (1980) pointed out that researchers often write in technical language which is incomprehensible to many decision-makers and other potential users. A similar point was made in evaluation studies. Brown and others (1978) stated that too much jargon and too much detail in reports attenuate utilization.

The excessively technical reports to decision-makers may serve to promote the evaluators' credibility as experts (Newman, Brown, & Braskamp 1980), but may even lead to non-utilization despite relevance to decision-making concerns and needs, because decision-makers simply cannot understand and do not know how to interpret the results. The primary purpose of the report is to communicate findings of the research to decision-makers and thus should be clear and understandable (Rothman, 1980).
Due to overlap between needs assessment and evaluation (e.g., evaluation is closely comparable to needs assessments in that each is part of a cycle in decision-making and results are reported to decision-makers), the report style factor just described for evaluation may also be important for the utilization of needs assessment.

3. **Timing of the Report:** In addition to report style, timing of needs assessment reports seems to be another important factor affecting utilization. Need-assessors may set their schedules to provide enough time to assure scientific validity. To increase the use of results, need-assessors should complete their reports in time for them to be used by decision-makers. No matter how valid and reliable the information, if a report arrives too late, its usefulness may be severely limited or destroyed. Several writers pointed out the importance of timeliness of the reports to increase utilization of needs assessment (Bickel & Cooley, 1981; Chapin, 1984).

4. **Background of Decision-Makers in Social Science Methods:**

   The two-communities perspective suggests that decision-makers may have limited knowledge of social science research concepts such as reliability, validity, statistical analysis, and data interpretation and thus may
not know how to interpret and understand the results. Consequently utilization may decrease. Decision-makers may even have misconceptions about or unreasonable expectations of needs assessment studies. For example, they may expect the information before needs-assessors can realistically provide it. These misconceptions and unrealistic expectations may affect utilization.

Bickel and Cooley (1982) stated that the research background of superintendents is related to needs assessment utilization. Their study implied that superintendents who have background in research might utilize the results more in making decisions than those lacking such background. Knowledge and background of decision makers therefore seem important in increasing utilization of needs assessment and should be included in a study of same.

5. **Attitudes of Decision-Makers Toward Needs Assessments:**
Attitudes can be defined as "values and feelings of an individual" (adopted from Wichienwong, 1988). The attitudes of decision-makers toward needs assessment may be different from those of need-assessors due to the environments in which they function. Attitudes of decision-makers may be negative, while need-assessors' attitudes may be positive toward needs assessment. For
example, needs assessors may value the idea of producing quality information about needs. They expect decisions to be made on the basis of the results they provide. On the other hand, decision-makers may consider the information as a threat, because it contains discrepancies between what they should have done and what they do. Therefore, their attitudes may be negative and may limit utilization of needs assessment results.

Little research is available on the relationship of attitudes of decision-makers and needs assessment utilization. Some evaluation studies do provide, however, useful insights about the nature of that relationship. Dickey (1980) reported in her study on utilization by federal project directors that decision-makers' attitudes are significantly related to their utilization of evaluation results. Similarly, Burry (1985) indicated that the more positive the attitudes of decision-makers, the more utilization occurs. So attitude would seem to be an important factor in increasing the utilization of needs assessment results.

6. Involvement of Decision-Makers in Needs Assessment: As reported earlier, several writers suggested that the "two-communities" perspective best accounts for some of the gap between two groups (e.g., decision-makers and need-
assessors). Further, they indicated that a possible reason for non-utilization was the lack of interaction between the two communities. This perspective implies that active involvement of decision-makers and the willingness of need-assessors to involve decision makers in needs assessment activities might be effective in overcoming some barriers between the two.

Studies about involvement of decision-makers in needs assessment are limited, but such studies have been made in the area of evaluation and potentially provide insights for needs assessment studies. Cohen (1977), Rich (1979), and Patton (1986) have indicated that one way to increase utilization is to involve decision-makers and potential users in planning and implementing evaluation studies. Alkin (1985) emphasized that the involvement of decision-makers should be an on-going process from the beginning of the study until its completion.

According to Wichienwong (1988), two kinds of joint efforts—collaborative and cooperative—exist for involving an administrator in a program evaluation. The collaborative approach requires more involvement in evaluation activities. In collaboration, evaluators and decision-makers work together from the beginning of the study in identifying problems and setting goals until its completion, reporting results. They regularly exchange
ideas and concerns and share responsibilities in carrying out the evaluation study. Continuous communication and strong commitment are seen as essential elements for successful collaborative involvement.

By contrast, in cooperation, communication is limited and occurs irregularly during particular study activities. The evaluator takes the main responsibility for carrying out the study from beginning to end. Decision-makers may facilitate the study by providing data or access to the data for which they are asked. Their commitment is passive compared with collaborative relations.

Even though the type of involvement depends on the given situation (Hord, 1981), collaborative more than cooperative involvement would seem to be desirable for increasing evaluation utilization.

**Independent and Dependent Variables:** The two-communities perspective has revealed various factors which may affect utilization of needs assessment results. The factors can be categorized into two major sets. The first is variables which are related to a needs assessment study. This category includes the methodological quality, the style, and the timing of reports. The second category, decision-maker factors, includes the background of decision-makers in social science research methods, attitudes of decision-
makers toward needs assessment, and their involvement in it.

The factors identified above will be used as independent variables in this study to determine their effects on the dependent variable, utilization. The dependent variable includes the gradual and incremental conceptual influence of results as well as use in actual decision-making—instrumental use.

**Purpose of the Study**

The purpose of this study is to investigate the extent to which needs assessments are used and factors related to respondents' perceived degree of needs assessment utilization.

Educational institutions increasingly undergo needs assessments as an important part of program planning. Yet, little empirical research has been done on needs assessment utilization and factors affecting such utilization. Existing studies have been conducted in contexts such as the federal government and social welfare agencies. There are few studies at the collegiate level (Sabatier, 1984).

It seems worthwhile to conduct a study in a collegiate context, a setting in which needs-assessors and decision-
makers work closely together and where many college administrators also have some background in research and/or evaluation. Although needs-assessors and collegiate decision-makers share, to a degree, the same environment, it will be productive to identify potential factors affecting collegiate-level utilization.

The focus of this study will be on the administrators in professional education units such as departments and schools of education. Since administrators play a major role in conducting needs assessments and especially in using the information, it is important to study their perceptions of needs assessments utilization and factors related to utilization. By understanding administrators' use of needs assessment and factors related to that use, need-assessors could develop more pertinent approaches to the needs assessment process. That effort could produce more relevant information and might increase utilization.

Collegiate institutions are extremely complex, and the kinds of administrators found in various administrative units are so diverse that it may be difficult to generalize. However, administrators within a unit (e.g., school of education) presumedly constitute a "community" with somewhat comparable backgrounds, attitudes, and experiences.
It is hoped that this study will provide both useful data and insights to help needs assessors (evaluators) and decision-makers improve needs assessments and promote their utilization. In turn, increased utilization could encourage a greater interest in needs assessment as a valuable tool for planning and/or other purposes in collegiate education units.

**Research Questions**

The main purpose of this study is to investigate the extent to which needs assessments are used and what factors are related to respondents' perceived degree of needs assessment utilization. Several questions will guide this study.

A. Questions Related to Utilization:
   1. What is the perceived level of needs assessment utilization of selected respondents?
   2. What are the ways in which needs assessments are used (instrumentally or conceptually)?

B. Questions About Factors Related to Needs Assessment Studies:
3. What are the relationships between the needs assessment study factors and respondents' perceived degree of needs assessment utilization?
   a. Is the methodological quality of the needs assessment (sampling procedures and data collection methods) related to the respondents' perceived degree of needs assessment utilization?
   b. Is the report style (technical language) of the needs assessment results related to the respondents' perceived degree of needs assessment utilization?
   c. Is the timing of presentation of needs assessment reports related to the respondents' perceived degree of needs assessment utilization?

C. Questions Factors Related to Decision-Makers:

4. What are the relationships between decision-makers' factors and their perceived degree of needs assessment utilization?
   a. Are the respondents' training backgrounds in social science methods related to their perceived degree of utilization?
   b. Are the respondents' attitudes toward needs assessment related to their perceived degree of utilization?
c. Is the respondents' level of involvement in planning and conducting needs assessment activities related to their perceived degree of utilization?

The methodology will be survey research. Data will be collected by means of self-report questionnaires. The sample for this study is administrators in collegiate professional education administrative units in Ohio colleges and universities. Correlational techniques will be used to determine the relationship between independent variables and the dependent variable, utilization.

**Definition of Terms**

**Need:** Need refers to a measurable discrepancy between desired status and actual status in terms of results (Kaufman, 1972).

**Needs assessment:** Needs assessment refers to the systematic process of identifying needs for decision making.

**Utilization/use:** Utilization and use are used interchangeably and refer to the extent to which the results of needs assessment are used by decision makers for conceptual/gradual changes about attitudes and thoughts as
well as for decisions that can be documented and directly attributed to a needs assessment.

**Factor:** A factor refers to any characteristic in a given needs assessment setting that can affect needs assessment utilization (adapted from Alkin et al., 1985).

**Decision maker:** Decision maker refers to an individual or group who has the authority to approve a needs assessment and to make decisions about its utilization for follow-up action (Witkin, 1984, p.4).

**Needs-Assessor:** Needs-Assessors refers to any individual(s) or groups who are responsible for the design and conduct of a needs assessment study (Witkin, 1984, p.4).

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**Statement of Limitations**

The major limitations in this study are:
First, it is limited in its scope to the information collected from approved teacher education units in Ohio collegiate institutions to determine relationships between significant factors and decision-makers' perceived degree of needs assessment utilization. Generalizations to all U.S. institutions and other types of institutions, agencies, and organizations may not be valid.
Second, appropriate caution should be exercised in accepting self-report and unverified reports by respondents about their perceptions. This study will analyze the perceptions of respondents concerning needs assessment utilization and use factors, as they were reported by means of the survey instrument developed for the study.

Third, misuse or abuse of needs assessment results, which refer to intentional manipulation of some aspects of a needs assessment study in order to gain personal benefits, will not be dealt with in this study (adopted from Alkin, 1988). Persuasive uses also will not be part of this endeavor.

Finally, this study will be exploratory in nature and will seek to produce ideas on potential factors affecting needs assessment utilization.

Methodology of the Study

Population and Sample: The population will be top-level administrators who perform administrative duties one-half or more time in a department, school, or college of education in a collegiate professional education unit. Administrators are responsible for functions such as program planning, budgeting, staffing, and evaluation.
Top-level administrators set goals, investigate decision choices, and make decisions. They then are responsible for implementing the decisions, and finally in evaluation outcomes. In this study the words "decision-maker" and "administrators" are used rather interchangeably.

Full-time and half-time administrators presumably will likely to constitute a "community" with somewhat comparable backgrounds, attitudes, experiences, and behaviors. Since the number of Ohio collegiate institutions with education units is small, the total population will be used for this study.

Data Collection and Analysis: A survey instrument will be developed to secure the respondents' perceptions of factors that affect their utilization of needs assessments. The survey questions will be derived from the analysis of the literature (reports on research studies and assumptions of experts) and the two worlds theory which appears to have some predictive power regarding the factors that affect utilization. The survey instrument will be validated by the researcher's advisor and other members of the reading committee. A small pilot test with individuals from The Ohio State University will be conducted to validate the instrument before it is mailed to the population. After the questionnaires are mailed, a phone-call approach
(Altschuld & Lower, 1984) will be used to increase return rate.

Appropriate analyses will be used to determine relationships between the selected factors and the needs assessment utilization.
CHAPTER II
LITERATURE REVIEW

As cited in Chapter I, the field of needs assessment has grown at a rapid rate since the passage of the ESEA, Title III in 1965. Since then, needs assessment has been undertaken for various purposes such as planning, accountability, and evaluation. There are also indications that needs assessment has been applied in a variety of different contexts including local, state, and federal programs. Needs assessment procedures have been adopted and carried out in many different program areas such as elementary and secondary education, special education (e.g., handicapped children), vocational education, higher education, and others. Yet, few studies, especially empirical studies, have been done in regard to the use of needs assessment information and factors which affect utilization.

In this chapter literature concerning needs assessment utilization and potential factors affecting utilization are reviewed. Accordingly the chapter is divided into two parts, each with a brief introduction and summary.
Part 1: Utilization of Needs Assessment Results.

The following review of the literature is divided into three major sections, all of which are related to utilization of needs assessment results, the dependent variable in this study. They are: (a) social science research utilization, (b) evaluation utilization research, and (c) needs assessment utilization research. Sections (a) and (b) collectively are important in providing a broad perspective of utilization, and they supplement the rather limited literature described in section (c).

Social Science Research Utilization

Social scientists have sought systematic evidence about the use of research, for example, the value of research contributions to policy decisions. Applying the question to the federal government, Weiss and Bucuvales (1980) found the extent of use was related to how use was defined. One definition could yield one set of data about use and another could produce quite a different set. A narrow definition of use such as direct impact on decision-making would indicate little use; a broader one, such as some influence on thinking about a decision, could indicate considerable research use. The authors further noted that
when research is applied, it is normally from several studies rather than a particular one and that the path from research reports to policy is through individual judgements based on experience and political considerations (p.228).

Two kinds of research use have emerged. According to Kennedy (1984), instrumental use is decision-making in which social science evidence plays a major role, a decision that is direct, visible, and documented. Conceptual use is less affected by social science evidence, for this use is helpful in an intellectual way: the processing of information rather than making decisions. Kennedy indicated that the conceptual model is the more appropriate and valid one in describing how research knowledge is used in social decision-making. The use is the kind in which new conceptual knowledge is integrated into existing knowledge. She said that "It is sorted, shifted, interpreted; it is transformed into implications and translated into inferences" (p.225). In fact Kennedy concluded that after the conceptual knowledge processing has continued for a while the decision-makers have an indistinct picture as to how the new knowledge compares to other sources of knowledge. According to her, once users interpret knowledge and draw inferences, the interpretations and inferences rather than the original knowledge may influence decision-making.
The range of uses of social science research was dramatized by Weiss and Bacuvalas (1980). They identified seven uses:
1. Raising an issue to the attention of government decision-makers.
2. Formulating new government policies or programs.
3. Evaluating the merit of alternative proposals for action.
4. Improving existing programs.
5. Mobilizing support for a position or point of view.
7. Planning new decision-relevant research.

In sum, in recent years there has been increasing knowledge about the nature and application of social science research. While social science research does impact on decision-making, the kinds of uses vary with circumstances and with different definitions, and are not necessarily causal, step-by-step, rational decisions. With broader definitions, the extent and importance of utilization seem more notable than was the case when utilization studies first were undertaken. This broader perspective on social science use can found in the literature on evaluation studies, which is reviewed next.
Evaluation Utilization Research

Program evaluation utilization studies have been incorporated into this literature for three reasons: (a) a great deal of study of evaluation utilization has been done, (b) since evaluation is a part of the planning process with needs assessments, insights about utilization of needs assessments can be gained from a review of the evaluation literature, (c) the literature on needs assessment is limited and can gain support from the closely related literature on evaluation. (Witkin said that needs assessment is commonly considered a subcategory of evaluation, 1984).

The pioneering study of evaluation research utilization was that of Weiss (1972), "Utilization of Evaluation: Toward Comparable Study." She provided the rationale that holds today: that evaluation should contribute to the rationalization of decision-making. Weiss forcefully implied that utilization is the major purpose for conducting evaluation:

The basic rationale for evaluation is that it provides information for action. Its primary justification is that it contributes to the rationalization of decision-making. Although it can serve other functions as knowledge-building and theory-testing, unless it gains serious hearing when program decisions are made, it fails its major purposes (p.318).
The purpose of evaluation was seen to provide objective data in promoting rational decision-making. The effectiveness of evaluation was judged by whether the information was actually utilized by decision-makers. However, evaluators' most common complaint was that evaluation findings were ignored (Weiss, 1972).

In fact, evaluation findings were used by decision-makers but not in "clear-cut and organizational-shaking" ways (Patton et al., 1977). Patton (1986) concluded that under-utilization can be attributed in substantial degree to a definition of utilization that is too narrow. Since then, the definition of "use" has been broadened. Brown and Braskamp (1980) demonstrated the broader concept:

...effective utilization does not necessarily mean that any of the recommendations are implemented or that there are any immediate apparent decisions based on the information (p.91).

Several writers (Alkin, 1985; Weiss, 1980) noted further that evaluation information was more often used in a incremental and conceptual sense than in a direct and concrete way.

The traditional definitions that stressed direct, immediate, and identifiable utilization have been called "mainstream." Those who used this definition rarely found utilization (Alkin et al., 1979). Alternative definitions broadened the concept of use; and writers began to find
varied kinds of uses, e.g., altering thinking and attitudes as well as direct use.

Using the broader concept of utilization, Leviton and Hughes (1981) and Alkin (1985) classified the utilization of evaluation research into three areas:

1. Instrumental use—direct connection between decision-makers' actions and evaluation study results.
2. Conceptual use—long-term impact of evaluation research results on decision-makers' thinking about action options.
3. Symbolic or persuasive use—the application of evaluation to personal use, such as gaining political support or support for personal policies.

On the basis of Leviton and Hughes (1982), King and Pechman (1984) discussed specific ways in which evaluation research can be used by local decision-makers. According to them, "signalling" use is a special use, in which local decision-makers do not make personal use. Rather, they use mid-project or annual reports to tell state or federal officials that all is well—that what was promised in a proposal or required by a regulation is being implemented in a reasonable, satisfactory manner. In signalling, decision-makers collect data, prepare a report, and send it to the state or national capital. The evaluation report is for filing; no local impact is planned or expected. In
contrast to their "signalling" use category, King and Pechman (1984) called instrumental, conceptual, and persuasive uses "charged" use, in which a use is characterized by local action in response to an evaluation report. These classifications can provide some guidelines for determining how much and in what ways needs assessment findings are used.

Since Weiss did her stimulating studies of evaluation in the 1960's and 1970's, there has been a gradual but dramatic shift in definitions of utilization. The move has been from direct, documentable, immediate use, commonly called instrumental use, of needs assessment reports to the present definitions which highlight conceptual use—the gradual, indirect, stimulating kinds of use. Even with the broad interpretation of utilization, utilization seems to be limited.

The research on program evaluation offers rich insights on the nature of utilization in decision-making. The close relationship of program evaluation and needs assessment makes it possible to benefit from the evaluation literature in the development of this study. A review of the available literature on needs assessments use follows to further delineate information, ideas, and insights that undergird this research effort.
Needs Assessment Utilization Research

Witkin (1984) asserted that "a need assessment is not complete until policy makers and managers translate the identified priorities into specific action, such as improved programs or delivery of services" (p.280). She pointed out that there is little evidence of the extent to which needs assessment information was actually utilized in making decisions. She argued that it would be hard to find a direct utilization because the level of use is commonly not reported. According to her, reports on needs assessment typically are prepared for presentation at the beginning of decision-making processes; in contrast, use of the information might be determined a year or more after a report was presented.

The ways in which needs assessment findings are reported make it difficult to study utilization of needs assessment. Kimmel (1977) and Witkin (1984) agreed that the evidence of a direct relation (i.e., instrumental relationship) between the needs assessment results and a specific decision was scarce. Their definition applied in this context was to narrow.

Witkin (1984) stated that "utilization should be defined by decision-makers in ways that are useful to them" (p.281). This definition implied that needs assessment studies could be used in a variety of indirect as well as
direct ways. Bickel and Cooley (1981) supported this position. They suggested that use occurs when needs assessment data influence making decisions, helps to substantiate actions, or contributes to alteration of thinkings and attitudes.

Using the broad definition of utilization based on administrators' perceptions of usefulness, Robins (1982) found that there were considerably more indications of use of needs assessment results in human service agencies than previously inferred. Therefore, it would seem of value for needs assessment studies to reflect sensitivity to broader definitions that enlarge on the mainstream definition and that go beyond the restrictions of mainstream-use concepts. Some of the empirical studies just cited indicated that needs assessment results affected decision-making but more in an indirective way such as influencing decision-makers' thinking and valuing processes.

Summary

Earlier discussions were pessimistic about the utilization of research in general, particularly evaluation and needs assessment, when definitions were defined in terms of direct and documented use.

The trend recently has been toward broadening perspectives of utilization. A review of the literature on
utilization supported this conclusion that utilization is greater than was believed before "use" definitions were broadened.

However, even with the broad interpretation of utilization, needs assessment utilization seems rather limited. In Part II, the literature regarding potential factors affecting the utilization will be examined.

Part 2: Key Factors Affecting Needs Assessment

Utilization

Snow's *The Two Cultures* (1959) proposed an explanation about the gap between the humanities and the hard sciences. He thought that there are very basic differences between the ways in which persons think, do research, and apply it, depending on whether they are trained and experienced in one of the humanities fields--such as philosophy or literature--or in one of the hard sciences such as physics or chemistry. The theory has been used as the basis of understanding individuals with different professional backgrounds and training. In this study Snow's two-cultures theory has been converted into the two-communities perspective to understand possible under-utilization of
needs assessments and to identify factors affecting the utilization.

The two-communities perspective posits two major sets of factors: needs assessment study factors and decision-maker factors. Needs assessment study factors include methodological quality, report style, and timing. Decision-maker factors consist of backgrounds of decision-makers, their attitudes toward needs assessment, and their involvement in needs assessment activities. These factors and their expected relationship to utilization will be discussed later in this section.

Methodological Quality

The quality of methodology (sampling procedures to obtain a representative sample and appropriate and rigorous techniques for data collection) has been discussed as an important aspect of evaluation utilization. It is reasoned that a quality endeavor would result in accurate and valid findings and decision-makers would utilize such information.

In several studies it was suggested that under-utilization was associated with the poor quality of evaluation projects. For example, Weiss and Buculavas (1980) stated that the quality of methodology was an important factor in under-utilization. Additionally, there
is evidence of a relationship between methodological quality and utilization. For example, Alkin, Kosecoff, Fitz-Gibbon, and Seligman (1974) found in an investigation of Title VII project evaluation that methodological sophistication was positively related to utilization. Similarly, Weeks (1979) reported in his dissertation on factors affecting utilization that sampling procedures were positively correlated with utilization. He noted that the correlation between methodology and utilization suggests that decision-makers were, in fact, sensitive to the methodological quality of findings. Weeks said that decision-makers appreciate—at least intuitively—problems of sampling bias.

However, more recent studies, including Dickey (1980) and Dickman (1981), reported that the use of evaluation information is not related to the methodological quality of the evaluation. Patton et al. (1977) investigated the utilization of evaluation of federal health programs and stated that there was little evidence that methodological quality had an effect on increasing the evaluation utilization.

Although evaluation findings above are not directly related to needs assessment, it can be anticipated that the same factor (the methodological quality) may affect utilization of needs assessment because both needs
assessment and evaluation employ techniques and methods to measure and identify weaknesses and strengths of education programs.

There are needs assessment studies which confirm the negative relationship between the quality of methodology and utilization. Robins (1982) found in her study of local health service agencies that utilization in regard to decision-making and the overall operation of agencies was not related to the soundness of needs assessment methods. Bickel and Cooley (1981) also noted that sophisticated techniques were not important in influencing utilization. They said that such techniques might be less interpretable and less intelligible to the decision-makers. Thus, utilization actually may decrease when sophisticated techniques are used.

The limited use or non-utilization of the needs assessments (as well as evaluation) may be a function of the fact that needs-assessors live in one community and decision-makers in quite a different one. While needs-assessors might be particularly concerned with the quality of needs assessment data, decision-makers may be more interested in organizational factors (e.g., budgets) (Witkin, 1984).

As mentioned earlier (Chapter I), since needs-assessors value the reliability and validity of data, they
tend to spend considerable time and effort in identifying a representative sample and selecting as appropriate and rigorous methods for data collection and analysis as they can. Needs-assessors may believe that as long as they produce accurate data on needs of clients (e.g., learners), decision-makers will automatically use the information.

On the other hand, decision-makers may not view the methodological quality as very important for using results. They may see the search for reliability and validity of data as unnecessary in making decisions (Wichienwong, 1988), especially in light of limited resources and severe time pressures. Witkin (1984) said that when educational decision-makers "feel" right, they use the information to their advantage and interpret the data in the direction of their beliefs. Wichienwong (1988) also pointed out that administrators use results when the evaluation data are good for their programs and organizational defense. The methodological quality seems less important than other factors in using results for decision-making.

Literature on utilization has provided controversy regarding whether or not the quality of methodology is associated with utilization. There seems to be greater agreement, however, on the point that decision-makers may use information when the data are directly related to their
organizational concerns regardless of the quality of methodology.

The Style of Report

The lack of communication based on the needs assessment report can be explained in part by the gap between needs-assessors and decision-makers. Needs-assessors trained in scientific, systematic methodologies may write reports in technical language. Such reports may be incomprehensible to many decision-makers, who are often not statistically trained and experienced or at least not prepared on the same level as needs-assessors. To make report information more understandable to decision-makers, needs-assessors may have to translate complex ideas and technical language into a reporting form that is familiar and understandable to decision-makers.

Although information on the relationship of the style of a report of needs assessment to utilization is lacking, one can draw some inferences from research on evaluation.

Literature on evaluation reports has indicated that it is critical to communicate research findings in the language of decision-makers. For example, the Joint Committee on Standards for Educational Evaluation (1981) suggested that reports should be written in a meaningful and understandable format and style for target audiences.
That may require changes in report style. Examples of needed changes are jargon elimination, decreased amounts of technical data, and less preoccupation with expertise as professional evaluators (Brown et al., 1978, Newman et al., 1980). Reports with too much jargon and technical languages may be difficult for many decision-makers to understand and apply and thus lead to limited utilization or non-utilization even though the research deals with decision-makers' issues and needs.

Evaluators may assume that if they provide relevant and objective information the decision-makers will use the information. The relevance and objectivity of the information may be necessary to increase utilization, but it does not seem sufficient to maximize utilization. To increase utilization the information should be communicated with and understood by decision-makers.

There is some empirical evidence that too much jargon and too much detailed reporting contribute to limited utilization. Brown et al. (1978) found in their simulation study that the kind of language and data used affect respondents' ratings of the technical quality and readability of a report on testing and grading issues. In their study each of two groups of educator respondents read different reports about testing in public schools. The reports were identical except for the use of jargon and the
extent of data provided to support recommendations. Educators rated the jargon-loaded report with no supportive data most difficult to understand and rated least difficult the jargon-free, data-supported report. This finding may imply that difficulty in understanding may limit utilization or decrease it. Similarly, Haenn (1980) stated that readability for the intended users is a key factor affecting utilization.

Brown and Newman (1982) also investigated the extent to which varying amounts of data—such as no data; percentage data; percentage and graphical data; and percentage, graphical, and statistical inferences—have on the respondents' agreement with the evaluator's recommendations. The respondents in this study agreed most highly with the evaluator's recommendations when the data were in the form of percentages, along with graphs. Brown and Newman concluded that the addition of simple inferential statements, such as a statistical level of .05, lowered levels of agreement. They further reported that the respondent's agreement with evaluator's recommendations was lower when the inferential statements was included than it was when no data were provided. This may imply that the difficulties in understanding the report of a study limit utilization.
Technical or statistical information may not be that important to decision-makers. Thompson (1982) indicated that statistical information was not a key factor in decision-making processes. A too technical and statistical report style may even lead to negative reactions of decision-makers. They may not even read the evaluation report (Becker, Kirkhart, & Doss, 1982). Consequently, limited use or non-utilization may occur.

Since needs assessment is closely related to evaluation (e.g., both are planning processes and report to decision-makers), it can be anticipated that report style may be a critical factor in the utilization of needs assessment studies as well.

**Timing of Needs Assessment Reports**

In addition to the style of a report, the two-communities perspective suggests that for the needs assessment results to be utilized reports should be submitted to decision-makers at the time that they are making decisions.

Decision-makers often cannot wait until needs assessors complete their work in a scientific fashion. Decision-makers have to make decisions in the context of a political world rather than that of scientifically oriented needs assessors where time constraints may be viewed from
quite a different perspective. Needs-assessors may be more concerned with producing valid data. There may be gaps between the time in which decision-makers need information and the time needs-assessors require for objective data collection and summarization.

No matter how valid the information, when it is released late to decision-makers (after decisions have been made) the information may be unused. For example in an empirical needs assessment study, Chapin (1984) found that timeliness was one of the most important factors in determining needs assessment utilization by agency directors.

Literature in the evaluation context also supported the view that the timeliness is an important factor to utilization. Stufflebeam (1971) considered timeliness as one of the practical criteria for judging the quality of an evaluation study. He held that reports should be presented to the decision-makers in time to affect decisions. Dickey (1980) found that the timing of results was positively related to utilization. She suggested that timely information should be the primary focus. Similarly, Siegel and Tuckel (1985) reported that "the timing of an evaluation report can have a significant impact on both the amount of attention and receptivity accorded the report's findings" (p.319).
In contrast, there are some studies which contradicted the positive relation of timeliness and utilization. Patton et al. (1977) reported that timeliness did not seem to affect the utilization of federal health evaluation results. What they claimed was that decision-makers who are interested in data use information available at the moment and in any form and thus report timeliness does not necessarily improve utilization.

The inconsistent findings on timing may be related to the kind of use being studied, whether the results are used instrumentally or conceptually. When the information is instrumentally used, it is considered short-term use. For such use, timing is crucial. But when used conceptually, the decisions are part of long-term thought process and therefore, timing is not as important as it is for instrumental use. King and Thompson (1983) pointed out that the timing of a report is an important factor when focusing primarily on "instrumental" use of evaluation, while it is less important for conceptual use.

Needs assessment and evaluation are included in a cycle of systematic program development and implementation. Needs assessment conducted at the beginning a project, while evaluation is during and/or at its end. Timeliness of needs assessment results may be as important as for evaluation in terms of utilization.
Training Backgrounds of Decision-makers in Social Science

Methods

The two-communities perspective suggests that needs-assessors and decision-makers may differ in terms of their research training background. Needs-assessors commonly will have more training in the technical aspects of research than will decision-makers. (Conversely, needs-assessors will lack much of the knowledge and expertise that are common to decision-makers.)

Decision-makers may have little knowledge or limited preparation in social science research concepts such as reliability and validity of data, methods of data collection, and interpretation of results. The background of decision-makers in research concepts may affect utilization of needs assessments. Bickel and Cooley (1981) suggested that superintendents' research background may influence the use of the needs assessment information in decision-making.

There may be several possible consequences of limited knowledge in regard to utilization. Although it is not directly related to needs assessment, Rothman's (1980) study on utilization in organizations indicated that managers of organizations who lack knowledge of research processes may not know how to take advantage of the research based results. Furthermore, he stated that
program managers who lack such understanding may even ignore research results. Instead, they may turn to reassuring sources of information and insight such as personal experiences and contact with trusted colleagues.

Another consequence of limited research knowledge may be that decision-makers either expect too much from a research study or results too soon. They may expect the results in an unrealistic time frame to which researchers cannot respond (Rothman, 1980). The decision-makers may lower their respect for the credibility of researchers when reports are perceived to be untimely with the consequence that research results may not be utilized.

There are some insightful evaluation studies of potential users' background in social science research and related areas. Glassman (1979) concluded that principals may be unfamiliar with some social science methods and unable to use evaluation results based upon them. McCloskey, Altschuld, and Lawton (1985) emphasized that if systematic evaluation information is to be used, administrators need to be familiar with social science research methods and procedures. They pointed out the importance of administrators' background in research methods and procedures. First, exposure to concepts such as reliability, validity, independent and dependent variables, experimental control, and sampling can lead
administrators to benefit from formal, systematically gathered information. Knowing the strengths of research concepts, administrators may overcome preferences for informal approaches such as relying so heavily on personal experience and ideas of fellow decision-makers. Second, continuing exposure can improve administrators' ability to judge data quality and to understand and interpret data presented to them. They clearly suggested that the more backgrounds administrators have in social science research methods, the more likely they may be to use evaluation information.

Empirical studies indicate that decision-makers' background and experiences in research studies and evaluation may increase utilization. In a dissertation on mental health organizations, Kirkhart (1979) found a positive correlation between administrators' continuing education in research and program evaluation and their center's evaluation performance. McCloskey (1983) concurred with this position. She found that the more training and confidence principals have in social science methods, the greater they relied on formal sources of information such as systematic evaluation, test data, and so forth. Similarly, Wichienwong (1988) studied the relationship of administrators' involvement in evaluation and their attitudes. She found that administrators who had
prior training and/or experiences in research methods and/or program evaluation had more positive attitudes toward evaluation than those with less or no backgrounds. Such positive attitudes may increase utilization.

Even though the studies described above are not related directly to needs assessment or the sample (collegiate decision-makers) of this specific study, they are pertinent, because needs assessment and evaluation generally use the same social science methods—qualitative and/or quantitative techniques—for data collection and interpretation. Therefore, the background of decision-makers in social science methods may be an important factor for increasing utilization of needs assessment results.

Attitudes of Decision-makers Toward Needs Assessment

Another major factor in utilization may be attitudes of decision-makers toward needs assessment. Since there are few sources on the relationship of attitudes of decision-makers and utilization of needs assessment, the review of social science research and evaluation will provide the base for examining this relationship.

This section is divided into three subsections: (a) attitudes toward social science research, (b) attitudes of decision makers toward evaluation, and (c) sources of negative attitudes toward evaluation.
1. **Attitudes Toward Social Science Research:** Although not directly related to needs assessment, Rothman's research (1980) provided some insights on attitudes of decision-makers toward needs assessment and on how the attitudes can affect utilization. According to Rothman (1980), the attitudes of managers of organizations seemed to grow out of several factors:

1. **Custom:** Familiarity may lead to resisting the unfamiliar.

2. **Attachment to Particular Services:** Loyalty to particular clients may lead to resisting services to new clients.

3. **Defensiveness:** New data may seem to threaten staff's present actions.

4. **Autonomy:** Data may seem to restrict actions based on staff judgment; resentment may follow.

5. **Status and Role:** Research may seem to suggest changes in decision-makers' status and role and result in decreased prestige and power.

6. **Pressure:** Research may seem to imply additional responsibilities for a staff that already feels overworked. Studies may require considerable time and pressure.

7. **Intellectual Style:** A staff that uses hunches and intuitions may suspect that research in impractical in the "real world."
8. Misunderstanding of Research: Skepticism may grow out of limited understanding of research data, uses, and significance.

9. Anti-intellectual Radicalism: Committed to solutions of social problems through major actions, such as more of everything, some decision-makers may rebel against apparent slowness of research-based change.

The sources affecting attitudes delineated by Rothman above may limit utilization.

2. Attitudes of Decision-makers Toward Evaluation: Since there are few studies on relationships between attitudes of decision-makers toward needs assessment and utilization, evaluation studies will also be reviewed for their contribution to the attitudinal factor.

Burry (1985) stated that general attitudes of users toward evaluation were a potential factor affecting utilization. Rudduck (1985) pointed out that the attitudes of teachers toward evaluation were one major consideration in determining information production and dissemination. Dickey (1980) also found that attitudes of decision-makers were significantly related to the perceived usefulness of the evaluation.

Additionally, Dickey separated decision-makers' general attitudes toward evaluation and attitudes toward a
specific evaluation, i.e., toward one of their own programs. Sometimes, a general positive attitude may not lead to a positive attitude about a specific evaluation. Directors in her study said that they might not use evaluation information about their own program if the study design were not related to their concerns and if the results did not provide desired information. Wichienwong (1988) supported this position in her dissertation on principals' attitudes and their involvement in evaluation. She found that principals' attitudes about program evaluation in general ranged from neutral to positive. She explained these results in terms of their general attitudes rather than about evaluations of their own particular programs.

Although general attitudes of decision-makers may differ from their attitudes toward particular programs, these writers seemed to agree that attitudes of decision-makers are related to utilization. Negative attitudes of decision-makers toward evaluation seems to be one of the major barriers to increasing utilization. Similarly, attitudes of decision-makers toward needs assessment may influence utilization.
3. **Sources of Negative Attitudes Toward Evaluation:**

Negative attitudes toward evaluation may limit or eliminate utilization of a particular evaluation. A wide range of circumstances may affect attitudes and use.

One possible source might be that decision-makers view evaluation as an activity which can be perceived as criticizing their work and pointing out failures in those programs rather than providing information for improvement. Such perceptions seem especially strong when external evaluators conduct evaluations.

Decision-makers may view evaluation as scientific inquiry which in general requires laboratory conditions (e.g., constant and controlled environment or conditions). Such evaluations may seem unrealistic and impractical in the "real world" of the decision-maker. That attitudes could lead to a conclusion that evaluation information is relatively useless (Wichienong, 1988).

Resistance to change, another reaction and a common one, has been identified as another source for negative attitudes of decision-makers. Roecks and Estes (1985) pointed out that continuing present values and practices is simple, assuring, and uncomplicated. The status quo is simpler than either opposing change or leading efforts to adopt change. Such reactions are contradictory to the
essence of evaluation, said Gurel (1975), for change is "the first law of evaluation" (p.15).

The two communities concept provides another important differentiation in negative attitudes - that of roles. According to Gurel, the two communities function differently. Managers focus in large measure on program survival and preserving the status quo. Evaluators commonly promote innovation and changing the status quo. Gurel further noted that the evaluator may have little loyalty to the institutions values and little direct interest in a program's success. Quite to the contrary, Gurel said, the evaluator may approach an evaluation with skepticism about the particular program and cynicism about human services in general.

Gurel also looked at the differentiation of "Bureaucratic decision-maker vs. Scientist." As a scientist, the evaluator is loyal to his or her professional field and institution, is trained to be objective and accurate, and seek truth.

In contrast, the program manager (as a bureaucrat) may not be committed to the evaluators' scientific approach. Far from being objective, the decision-maker may be blind to the institution's faults. Demonstrated loyalty to the employer may be very important, for it may lead to recognition and rewards for the decision-makers. The
contrasts between the two communities may indeed affect decision-makers' attitudes toward evaluation.

Involvement of Decision-makers in Needs Assessment Activities

One of the potential factors contributing to non-utilization or underutilization of needs assessment may be the lack of active, continuing involvement of decision-makers in needs assessment activities. Although users' involvement in research activities in general and in evaluation in particular has been discussed widely in the literature, studies regarding needs assessment have not been found. Therefore, the related literature will be the main basis of the subsequent discussion.

1. Sources of Development of Ideas on the Involvement of Decision-makers: Stake's (1975) "responsive" approach to evaluation emphasized the involvement of potential users. In this approach evaluators' role is to respond to the potential users' concerns and issues. Programs should be designed with the continuous, direct, and indirect collaboration with potential users.

    Patton's (1986) "utilization-focused" approach also emphasized the importance of decision-makers' involvement to increase utilization. He noted that evaluators have to
work with decision-makers throughout the evaluation processes—from the beginning to the end. Decisions relating to purpose, focus, design, and method of evaluation should be shared with decision-makers and information users and thus utilization may increase.

Gold (1983) suggested in his "Stakeholder"-centered approach that an evaluation should focus on a stakeholder's preferences. The users would determine what kinds of information they need. To address their information needs, their involvement is essential. When they are involved in a study, they are more likely to use its results.

According to Alkin (1984a), evaluators who implement the "Participant Management Theory" would involve decision-makers in the design and execution of studies, communicate actively during the studies, and plan for utilization. Crediting Likert (1967), he noted that "Participant Management" is characterized by supervision and generation of objectives by all members of the group. Alkin also noted that this method of management guarantees better decisions and group commitment to those decisions. Administrators tend to be familiar with the social and political factors that influence programs. They can increase the odds that the planned evaluation will be pertinent to decision-makers and that study outcomes will be useful and used. Ruscus and Alkin (1984) have observed
that administrators have power to make an evaluation effective and to assure study results will be used.

The Joint Committee on Standards for Education Evaluation (1981) emphasized the importance of involvement of multiple audiences in evaluation activities. The Joint Committee set a standard for evaluation impact that evaluations should be planned and conducted in ways that encourage follow-through by members of all concerned audience. Additionally, the Committee advocated that key audiences be shown how evaluation findings could be useful. Positive attitudes could be developed through involvement in planning and implementing evaluation procedures as well as in reporting results during and after the evaluation. Preliminary, written and oral communications could be developed; and assistance could be given to decision-makers on how to understand and apply the final report.

Writers previously discussed have advocated utilization in general terms, and some have provided very specific suggestions about types and degrees of involvement. Some illustrations follow.

2. Types of Involvement: Merely involving decision-makers in evaluation may not necessarily increase utilization. According to Wichienwong (1988), there are two kinds of joint efforts for involving administrators in evaluation--
cooperative and collaborative involvements. A summary follows:

In the cooperative approach, administrators' involvement is relatively small. Evaluators have the major responsibilities in the whole process. They identify evaluation goals (unless a funding agency has set up specific goals), plan and implement evaluation strategies, and generate results. The cooperating administrators, as junior partners, may facilitate the evaluation by providing information (e.g., in the data collection stage) or access to the data. Such involvement is passive and limited. Their communication with the evaluators occurs irregularly during the cooperative process. The communication pattern between the administrators and evaluators is commonly one way, from evaluators to administrators.

In contrast, the collaborative approach requires a greater degree of involvement. Both administrators and evaluators actively work together from the beginning of the evaluation. They jointly identify goals and problems of an evaluation. They jointly plan and implement evaluation strategies and generate results. At all stages of the evaluation, administrators regularly exchange their ideas, concerns, and issues informally and formally. They share responsibilities for evaluation activities. In the collaborative approach, strong and extensive commitment of
both sides is involved. Continuous communication is a major characteristic. The communication is active and dynamic.

3. **Consequences of Collaborative Involvement:** Although the choice of cooperative or collaborative involvement depends on need and situation (Hord, 1981), the literature on utilization has generally indicated that collaborative involvement increases utilization. Goldberg (1978) advocated collaboration to increase evaluation utilization in decision-making.

   Based on results of a study of Title IV-C projects, Dickey (1980) recommended that evaluators should adopt a more collaborative role, involving the decision-makers and the staff in decisions about evaluation to increase utilization. She also noted that evaluation which is conducted at a distance between evaluators and decision-makers is less likely to be valid and thus less useful (p.76). It seems that collaborating decision-makers develop positive attitudes about studies in which they are involved and about their use. Wichienwong (1988) supported this position that collaborative involvement is likely to create favorable attitudes toward evaluation.
4. **Major Components of Collaborative Involvement:**

Collaborative involvement includes three components: on-going involvement, commitment, and communication.

4-1. **On-Going Involvement of Decision-makers:** An on-going collaborative effort should be in effect throughout the entire evaluation process, from the beginning to the end. Patton (1986) advocated active involvement in making decisions about a study's focus, design, methods, analysis, interpretation, and dissemination.

Rothman (1980) in his research on organizations similarly noted that effective utilization usually requires the manager to participate in the knowledge-building process at all stages. At the beginning stages, the user and the user's concerns should have influence in identifying the problems and setting the goals and objectives for research. He added that at later stages there must be a considerable amount of additional input from the users in the form of reactions and comments on perceived relevance, utility, and feasibilities. Rutman and Mowbray (1983) articulated a similar position in regard to participation in evaluation activities.

In collaborative involvement, it seems particularly important to actively involve decision-makers in all stages of evaluation.
Wichienwong (1988) identified four specific steps in collaboration between evaluators and administrators. The steps call for intensive interaction on a continuing basis. The steps can be described as follows:

1. Initiation is step 1. It includes goal setting, identifying audiences, delineating problems, and recognizing the concerns of the specified audience. In this step the decision-maker and evaluator agree on evaluative questions and types of information to seek.

2. Planning is step 2. Parameters are set, evaluation is designed, resources are allocated, personnel roles are identified, personnel are selected and trained, facilities and equipment are selected, schedules are developed, and types of data analysis are identified with care.

3. Implementation is step 3. Data are collected, data are analyzed and interpreted, and evaluation conclusions and recommendations are written.

4. Reporting is the last step. Here the type of presentation is selected, and a written or an oral report is prepared.

While these steps were for a school-based evaluation study, the steps may be applicable to a needs assessment.
4-2. **Commitment**: Commitment of decision-makers seems to be a critical factor in their interest in being intensively involved in a wide range of evaluation activities. Committed to the idea that evaluation can provide useful information and ideas, the decision-makers are available to become partners in the evaluation. As such decision-makers are not only ready to accept an evaluator's invitation to become intensively involved, but they may even seek out such a partnership. Furthermore, they may make a strong commitment to make the evaluation useful. If the commitment is broadened to a collaborative role, the odds that findings will be utilized would seem to be increased.

Several writers supported the connection of commitment to evaluation utilization. Glaser and Taylor (1973), Alkin et al. (1979), and Dawson and D'Amico (1985) indicated that decision-makers' commitment was related to utilization of evaluation. Alkin (1985) pointed out that when top decision-makers are committed to evaluation, utilization is more likely to occur. He also noted the decision-makers and the evaluators must share a commitment to use. Otherwise use may decrease greatly.

Commitment also seem to be closely related to needs assessment utilization. Robins (1982) observed the importance of administrator commitment to use of needs
assessment. The commitment of decision-makers may influence ultimate utilization of needs assessment results.

4-3. *Communication:* If there is decision-makers' commitment to evaluation and its application, continuous communication between decision-makers and evaluators is necessary for collaboration.

Two-way communication from evaluation start-up through completion can help all to attain their unique goals, e.g., a timely, useful study for the decision-makers, a scientifically valid and precise-worthy research document for the evaluators. Two-way communication can remove misunderstanding of goals, procedures, report style, timing, and other considerations which may be viewed differently by the decision-makers and evaluators' communities.

Through the communication between the two groups--direct and indirect, formal and informal, time-responsive, active, and most importantly, continuous--the evaluation can proceed smoothly. The communication even can result in a supportive climate from decision-makers (Dickey, 1980). Consequently, utilization can increase. Dawson and D'Amico (1985) said that communication is perhaps the major stimulus for increasing utilization.
Evaluation research has provided useful insights on the nature and importance of involvement of decision-makers to increase utilization. Since administrators have an important role in conducting needs assessment and utilizing its results (as they do in evaluation), their involvement in needs assessment activities can increase the odds that needs assessment will be both useful and used.

Summary

The extent of utilization of needs assessment findings has been explained in terms of differences between the two communities—decision-makers and needs-assessors. Six key factors that seem to affect utilization have been identified: the methodological quality of needs assessment, its report style, the timeliness of the report, the background of decision-makers in social science methods, their attitudes toward needs assessment, and their involvement in needs assessment activities. These factors were discussed relative to the utilization of needs assessment.

Poor methodological quality could yield invalid findings and thus might affect utilization. The style of the report has also been found as a potentially important factor affecting utilization. The review of literature revealed that incomprehensible and excessively technical
reports may lead to under- or non-utilization because decision makers may not understand the reports and may not know how to interpret results. In addition, timeliness from the decision-maker's perspective seems to be a vital factor in utilization. No matter how valid the information, if the report arrives too late, its value may be greatly reduced or cancelled.

The background of decision-makers in social science methodology is also an important factor affecting utilization. Decision-makers who have background in the social sciences might have better understanding of concepts and methods of research studies and may more predisposed to utilize the results of needs assessments in making decision than colleagues with limited background.

Needs assessment utilization may be significantly affected by attitudes of decision-makers. Since decision-makers are key persons in making decisions about many matters, their attitudes toward needs assessment may be related to successful utilization. Their involvement in needs assessment activities is also considered to be one way to increase utilization. In this study, the involvement was characterized by three dimensions—on-going involvement, communication, and commitment.

In identifying these factors, the author does not deny that other factors may or could affect utilization.
However, this study will be based on the key factors identified above.
CHAPTER III
METHODOLOGY

This chapter contains descriptions of: (a) general procedures, (b) population and sample, (c) the development and validation of the instrument, (d) the questionnaire, and (e) data analysis.

Descriptions of General Procedures

The purpose of this study is to investigate the extent to which selected collegiate administrators used needs assessment results and factors affecting that utilization. A survey instrument was developed to secure the respondents' perceptions of needs assessment utilization and factors potentially predictive of that utilization. The survey questions were derived from analysis of the literature and, in particular, the two-communities perspective which appeared to have some predictive power regarding factors that affect utilization.

The survey instrument was validated by the researcher's advisor and other members of the reading committee. Pilot testing with six graduate students in the
Educational Administration Program at The Ohio State University was conducted before it was mailed to the sample. After the pilot test, a final form of the questionnaire was developed.

After the questionnaire and cover letter were mailed, a phone-calling approach (Altschuld & Lower, 1984) was used to encourage a higher return rate. Correlational techniques will be used to determine relationships between selected factors and needs assessment utilization.

The above paragraphs provide a brief overview of the procedures. In subsequent sections they will be described in detail.

Population and Sample

The population consists of administrators who perform administrative duties in a department, school, or college of education in private and public collegiate institutions and universities which are state approved for teacher education in Ohio.

There are 64 four-year collegiate institutions in Ohio listed in the Ohio Education Directory (1988). Out of the 64 schools, 48 colleges and universities matched the criteria described above (institutions with a program, department, or college of education and approved for teacher education in Ohio).
Since the number of such Ohio collegiate institutions with education units was small, the total population was the sample for this study.

The appropriate respondents for the study were school of education deans, associate deans, heads and/or chairpersons of education departments. The reason for choosing the administrators was that they may constitute a "community" with somewhat comparable backgrounds, attitudes, and experiences. Another reason was that the administrators have primary responsibility for using information and making decisions to support those decisions. The list of the respondents was obtained from Ohio Educational Directory, 1989-1990 school year (1989).

Development and Validation of Instrument

Since little empirical research has been done about collegiate-level utilization of needs assessment and related factors, an exploratory survey seemed to be the most appropriate research design. Such a design provides the feasibility essential to initial research in this area. The survey design is also desirable for describing the present status of a given situation.

The research questions identified in Chapter I guided the development of the questionnaire and subsequent data
analysis. A detailed survey questionnaire was developed as the fundamental source of data for this study.

A draft of the questionnaire was reviewed first by the dissertation committee members. The questionnaire was revised on basis of their suggestions. This instrument was pilot tested with six graduate students in the College of Education, The Ohio State University. The purposes of this test were (a) to improve the general structure of the instrument, (b) to improve the clarity of items and terms, and (c) to determine the apparent adequacy (face validity) of the questionnaire for mailing to study respondents.

Based on the outcomes of the pilot test, revisions and modifications were made; and the final instrument was prepared. That questionnaire was mailed to the sample with a self-addressed, stamped return envelope, and a cover letter (See Appendices A and B). The cover letter described in general terms the purpose of the study, its importance, a request for respondent cooperation, and a guarantee of the respondents' confidentiality. The letter also indicated that the respondents would be called shortly after they received the questionnaire to answer any questions that they might have. The letter also stated that a summary of the study results would be sent on request of the respondents. Finally, the Dean of the College of Education at The Ohio State University, Dr.
Donald Anderson, added a personal note to his professional administrative peers. The note was written in a form of endorsement.

The questionnaire was mailed in batches of approximately 20, three or four days apart, to allow time for follow-up calls. The first batch was sent in the middle of February.

To maximize the return rate, this study used Altschuld and Lower's (1984) phone-call approach. Phone calls were made approximately three or four days after the questionnaire was sent: (a) to make sure all the respondents had received the questionnaire, (b) to answer any questions they might have about it, and (c) to encourage them to complete and return it. Calls were standardized by a script (Appendix D) to assure that all vital ideas and information were covered in the conversation. When a completed questionnaire had not been received at the time of the telephone calls, it was assumed that the original questionnaire was probably misplaced or lost. For this reason, another questionnaire was mailed.

Even with encouragement, some questionnaire recipients had not completed their task by the stated deadline. In such cases a second mailing was sent. It included a letter (Appendix B) and a questionnaire. A follow-up telephone
call was made three or four days after the second questionnaires were mailed.

**Description of the Questionnaire**

There were four independent variables in the study:
(a) a needs assessment study factor (quality of methodology, report style, and timeliness), (b) background of decision-makers, (c) their attitudes, and (d) and their involvement. The dependent variable was utilization of needs assessment results. Items were developed to assess each of the above variables.

The questionnaire (Appendix C) consisted of five parts: (a) attitudes and perceptions, (b) involvement in needs assessment, (c) utilization of needs assessment results, (d) a needs assessment study factor (quality of methodology, report style, and timeliness), and (e) general information. Each part is described below.

1. **Attitudes of decision-makers toward needs assessment:**
The first part of the questionnaire was labeled "Attitudes and Perceptions" and contained 17 items to measure respondents' attitudes toward needs assessment. Examples of items follow:

   "Needs assessment is essential for identifying problems in current program."
"Needs assessment is helpful in making decisions."

Responses would reflect feelings and values based on the overall past experiences or general perceptions about needs assessment. All the items used a five-point scale, ranging from "strongly agree" to "strongly disagree." The degree of attitude of decision-makers was a score obtained by summing across the items. For the positive statements (such as items "1," "2," "3," "5"), "strongly disagree" was assigned a score of "1," and "strongly agree" was a score of "5." For the negative statements (such as items "4," "9," "10,"), on the other hand, scores ranging from "1" to "5" were assigned to the answers in the reverse order. A score was obtained by summing across a number of items. It was assumed that the higher scores reflected positive attitudes toward needs assessment.

2. Involvement in needs assessment: The second part of the questionnaire, which was called "Involvement in Needs Assessment," contained items to measure the level of involvement in needs assessment. There were three dimensions in involvement: (a) on-going involvement, (b) communication, and (c) commitment.

On-going involvement referred to respondents' involvement from the beginning to the end of needs
assessment. The level of on-going involvement was assessed based on four stages of involvement: initiating, planning, implementing, and reporting. There were four items. Examples of the items follow:

- "Discussion of general needs assessment goals."
- "Selection of the strategy for the needs assessment design."

The respondents' answers were based on a five-point scale from "1=never" to "5=very extensively." The higher the score was, the greater inferred level of on-going involvement of the respondents.

Eight items were designed to measure the level of administrators' communication with needs assessors and commitment of administrators to needs assessment. A communication scale was developed to assess the extent to which respondents communicated to and with needs assessors during the needs assessment activities. Example of the items follow:

- "My concerns/ideas were addressed in the needs assessment process."
- "I understood the concerns of others involved in the needs assessment process."

The extent to which the respondents share responsibility with needs assessors in conducting a needs
assessment was measured by the commitment items. Examples of items are:

"I was committed to ensuring the completion of the needs assessment study."

"I was committed to utilizing the needs assessment results."

The items concerning the communication with/to needs assessors (and other members of the needs assessment team) and commitment to needs assessment were rated on a five-point scale. The respondents were asked to choose one of the responses: "strongly agree" (SA), "agree" (A), "undecided" (U), "disagree" (D), and "strongly disagree" (SD). A score was assigned to each response ranging from "1" for "strongly disagree" to "5" for "strongly agree."

It was assumed that the higher scores indicated the better communication with/to needs assessors (and other members of the needs assessment team) and greater commitment to the needs assessment endeavor, respectively.

Utilization of Needs Assessment

The dependent variable—utilization—was measured on the basis of a broad concept of utilization, including both instrumental and conceptual utilization. Instrumental utilization referred to direct impact on administrative decision-making. Conceptual utilization referred to more
indirect impact such as influence on thinking and attitudes.

Ten items were developed to measure the extent to which needs assessment results had been used. There were five items for instrumental use and another five for conceptual utilization. Examples of items about instrumental utilization are:

- "Were used to develop new program/policies."
- "Were used to allocate revenue and resources."

The examples of items pertaining to conceptual utilization were:

- "Changed the way in which the institution viewed current programs/policies."
- "Raised new questions related to planning processes."

The respondents were asked to indicate their perceived level of utilization. The items employed a six-point scale, ranging from "very high" to "don't know." "Very high" was assigned a score of "6" and "don't know" a score of "1." For each type of utilization (instrumental and conceptual), a score was obtained by summing across the items. A summed score across ten items indicated overall utilization. It was assumed that the higher score indicated greater utilization by a decision-maker.
Utilization Factors (A Needs Assessment Study Factor)

This part of the questionnaire, "Utilization Factors," covered independent variables in the study such as quality of methodology, report style, and timing of reports. Nine items were developed to measure the variables: three for methodological quality, four for report style, and two for timing of reports. Because the numbers of the items (a total of nine items) were small, the three factors were combined into one variable, a needs assessment study factor.

To measure the methodological quality, the respondents were first asked to indicate the perceived degree of needs assessment methodological quality in general by responding to four items. Examples of the items are:

--"Adequacy of the sampling procedure."
--"Appropriateness of the instrument for data collection."

"The report style" referred to the final written report. "Report style" included items such as:

--"Use of jargon, technical language/term in the report."
--"Statistical information."

For the measurement of timing of reports, two items were developed. The items asked whether timing of
completion of a needs assessment study and timeliness of reports were important factors in making decisions.

For all items in the "Utilization Factors" section, a four-point scale ("very important to use," "important," "somewhat important," and "not important to use") was employed. A value was assigned to each response, ranging from "1" for "not important to use" to "4" for "very important to use." The highest value indicated the most important variable in terms of utilizing results of a needs assessment. The score was obtained by summing across the items for the factors.

**General Information**

The last part of the questionnaire was a means of collecting information pertinent to the respondents' age, years of experience, highest degree of education, their current position, and size of institution. All of these questions are considered important for describing the sample of this study.

An independent variable, background of decision-makers in social science methods, also was included in this part. This variable was divided into three sub-parts: formal training, informal training, and confidence. The respondents were asked to indicate the level of their background in such areas as needs assessment, program
evaluation, quantitative research methods/techniques, statistics, tests and measurement, qualitative research methods/techniques, and program management. Knowledge of research gained through courses in college or graduate levels was considered as formal training. Knowledge secured through experiences such as conference, workshops, and personal reading was considered as informal training. The third sub-part dealt with respondents' confidence in the content just described.

For all three sub-parts, respondents choose one of the five responses: "very high," "high," "moderate," "low," or "none." Each response ranging from "1" for "none" to "5" for "very high." The numbers were summed across the seven areas to provide a score for each part--formal, informal training, and confidence. The higher score for each part was interpreted as representing more background or confidence in social science methods. In addition, a total score on the background scale was calculated by summing across the three sub-parts. It was assumed that the higher score indicated that decision-makers had more background in social science research, evaluation, and program management methods.
Data Analysis

Data analysis was undertaken for four purposes. First, descriptive statistics were obtained to depict characteristics of the respondents. Means, standard deviations, frequencies and/or percentages were calculated to describe a profile of the respondents.

Second, reliability for the five scales (administrators' attitudes toward needs assessment, involvement in the needs assessment process, research/evaluation background, a needs assessment study factor, and utilization of needs assessment results) was computed through use of the Reliability Procedure in the SPSS statistical package. Cronbach's Alpha coefficient indicated an estimate of the reliability of each scale.

Third, factor analysis through use of the SAS statistical package was used to examine the nature of scales and to better understand results. The initial stage of factor analysis was to extract a smaller number of factors which could explain various scales. To determine the number of factors to retain, three different criteria were employed—an eigenvalue greater than 1.00, an examination of a scree test, and a factor loaded by at least 3 items. Once the minimum number of factors on each scale was determined, oblique rotation was used to obtain the clearest factor pattern. The oblique rotation provided
not only factors but also the loading of each item on a factor. Based on the obtained rotated factor pattern, a tentative title was given to each factor to reflect the meaning of the items comprising it.

Lastly, correlational analysis was used to determine whether or not independent variables (administrators' attitudes toward needs assessment, involvement in the needs assessment process, research/evaluation training background, and a needs assessment study factor) were related to the dependent variable—utilization of needs assessment results. Significance of correlation between each independent variable and the dependent variable was determined through use of Pearson Product-Moment Correlation Coefficients. In the analysis, the P value was set at .05 level.

To describe the relationships between independent and the dependent variable, stepwise multiple regression was performed. The results of stepwise multiple regression indicated the relative strength of four independent variables with the dependent variable.

Summary

This chapter presented information concerning (a) the identification of the population and sample, (b) the development of the instrument and its validation, (c) the
questionnaire structure, and (d) data collection and analysis procedures used in this study.

Findings of the study are reported in the next chapter.
CHAPTER IV
RESULTS

This exploratory study was designed to gather data pertaining to needs assessment and the utilization of needs assessment results in selected collegiate administrative units.

The main purpose of the study is to examine relationships between several independent variables and a dependent variable. The independent variables were administrators' attitudes toward needs assessment, involvement in the needs assessment process, research/evaluation training/backgrounds, methodological quality, report style, and timing of reports. Utilization of needs assessment results was the dependent variable.

The population consisted of administrators who performed administrative duties in a department, school, or college of education in private and public colleges and universities which are state approved for teacher education in Ohio. The total population of 64 was used for this study.
This chapter consists of the following parts: (a) questionnaire return rate, (b) descriptive analysis, (c) reliability, (d) factor analysis, and (e) correlational analysis.

Part 1: Questionnaire Return Rate

The data for this study were collected through the use of a mail questionnaire. The questionnaire, along with a cover letter (Appendices A and B) and a return self-addressed, stamped envelope, were sent to 64 respondents in February, 1990. The questionnaire was mailed in three batches of approximately 20, three or four days apart. This allowed sufficient time to call each respondent. The major purpose for the phone calls was to promote the return rate and to answer any questions which the respondents might have had about the questionnaire.

The phone calls were made until a respondent or his/her secretary was reached. Using a standardized script to promote consistency, the callers described the purpose of the study, its importance, a request for respondent cooperation, and a guarantee of confidentiality. (The three callers were U.S.-born, friendly, and assertive. One of the callers was a professor in the College of Education
of The Ohio State University. The others were graduate students in the College). A total 134 phone calls were made to 62 respondents, respectively. Slightly more than two calls per respondent. Two OSU administrators who were in the sample were contacted personally on campus.

As the questionnaires were received, a record was kept of code numbers and date of receipt. The log provided information on returns and identified follow-up calls to make. By the middle of March, about 88 percent (56 persons) of the questionnaires were returned. The second mailing was sent to those who had not responded by the middle of March. A follow-up letter and a replacement questionnaire was included in the second mailing. A follow-up telephone call was made three to five days after the second questionnaire was mailed. As a result, about 9 percent more were returned. In Table 1 the number of the respondents who returned questionnaires and the rate of questionnaire return are provided.
Table 1

Number and Percent of Returned Questionnaires

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>First mailing</td>
<td>56</td>
<td>87.5</td>
</tr>
<tr>
<td>Second mailing</td>
<td>6</td>
<td>9.4</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>96.9</td>
</tr>
</tbody>
</table>

Note. Based upon a total sample size of 64.

Respondents' home institutions were categorized by size and by their governance—private or public. Ohio has great diversity in its institution. There were thirteen (27%) state institutions. Of these, there were twelve (25%) large ones and one (2%) small one. Private institutions numbered thirty-five. Most (25, about 52%) were small. Ten (21%) were large in size. An analysis of respondents replies was not made vis-a-vis the type of institution. Background information on governance, institution size, and the rate of returned questionnaire are included in Table 2.
Table 2

Percentage Returned Questionnaires by Types and Size of Institution

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of institutions</th>
<th>Number returned</th>
<th>Percent returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large state institutions</td>
<td>12</td>
<td>11</td>
<td>22.9</td>
</tr>
<tr>
<td>Small state institutions</td>
<td>1</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>Large private institutions</td>
<td>10</td>
<td>10</td>
<td>20.8</td>
</tr>
<tr>
<td>Small private institutions</td>
<td>25</td>
<td>24</td>
<td>50.0</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>46(^a)</td>
<td>95.8(^b)</td>
</tr>
</tbody>
</table>

\(^a\)Total institutions equal 48

\(^b\)Does not total to 96% because of rounding error.


Part 2: Descriptive Analysis

Age: The majority of the respondents (80%) were in the age ranges from "45-49" to "55 and over." About 21 percent of the respondents were in the "35-39" and "40-44" age categories. There was no one under 34 years of age.
Generally this age pattern was to be expected given the status and level of the individuals surveyed. In Table 3 the distribution of the age reported by the respondents is presented.

**Experience:** The respondents may be characterized as being fairly experienced as an administrator. The majority of respondents (66%) had more than 10 years of experience. Among the response categories, "16 and over" was the largest single group (about 44%), while only two respondents (about 3%) had "less than 1" year of experience. The remaining number of respondents (about 53%) were somewhat evenly spread across the other categories. As can be seen in Table 4, only in the "16 and over" experience category was there a dramatic shift in number of respondents and percentage.
Table 3

**Age as Reported by the Respondents**

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 and below</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26-29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30-34</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35-39</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>40-44</td>
<td>10</td>
<td>16.1</td>
</tr>
<tr>
<td>45-49</td>
<td>13</td>
<td>21.0</td>
</tr>
<tr>
<td>50-54</td>
<td>17</td>
<td>27.4</td>
</tr>
<tr>
<td>55 and over</td>
<td>19</td>
<td>30.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>62</strong></td>
<td><strong>99.9</strong></td>
</tr>
</tbody>
</table>

*a Total respondents equal 62.*

*b Rounding error.*
Table 4

**Total Years of Experience as an Administrator**

<table>
<thead>
<tr>
<th>Years of experiences</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>1-3</td>
<td>7</td>
<td>11.3</td>
</tr>
<tr>
<td>4-6</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>7-9</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>10-12</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>13-15</td>
<td>8</td>
<td>12.9</td>
</tr>
<tr>
<td>16 and over</td>
<td>27</td>
<td>43.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>62</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Highest Degree:** Most of the respondents (about 92%) had earned Ph.Ds. About 7 percent (4 persons) of the respondents reported that they had a master's degree as the highest degree, and one respondent identified educational specialist degree as the highest degree. There was no one who had received a B.A/B.S as his/her highest degree. The distribution of the highest degree earned by the respondents is shown below (Table 5).
Table 5

<table>
<thead>
<tr>
<th>Degree</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A./B.S.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>M.A./M.S.</td>
<td>4</td>
<td>6.6</td>
</tr>
<tr>
<td>Ph.D./Ed.D.</td>
<td>56</td>
<td>91.8</td>
</tr>
<tr>
<td>Ed. Specialist</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong>(^a)</td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

\(^a\)There was one respondent who did not provide information.

**Current Position:** The respondents were asked to report their current position. There was a variety of titles: dean, associate dean, assistant dean, director, chairperson, head of department. For analysis purposes, all position titles were divided into four categories, dean, associate dean, assistant dean, and chairperson of the department. Since some of the titles—director, chairperson, or head of department—seemed to be basically the same, they were included in the fourth category, chairperson of department. In Table 6 the frequency and percentage distribution of positions are presented.
Table 6

Frequency and Percentage of Positions

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean</td>
<td>12</td>
<td>20.3</td>
</tr>
<tr>
<td>Associate dean</td>
<td>11</td>
<td>18.6</td>
</tr>
<tr>
<td>Assistant dean</td>
<td>3</td>
<td>5.1</td>
</tr>
<tr>
<td>Chairperson</td>
<td>33</td>
<td>55.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59</strong></td>
<td><strong>99.9</strong></td>
</tr>
</tbody>
</table>

a Three respondents did not provide information.
b Rounding error.

Of sixty-two respondents who returned the questionnaires, about 56 percent of the respondents were chairpersons of departments. This was the largest single group. Deans (12 persons) and associate deans (11 persons) each made up 20 and 19 percent, respectively, while only three respondents were assistant deans (about 5%). There were three respondents who did not respond to this question and thus were not included in the data analysis.
Enrollment of College Units: Student enrollment data were collected in two categories—graduate and undergraduate enrollments. Of total sixty-two respondents, forty-six indicated that their institutions had both graduate and undergraduate levels. The rest of the respondents (16 persons) reported that they had only undergraduate programs.

At the graduate level, 50 percent of the respondents indicated that they had "more than 751" students, while about 28 percent of them reported that they had "under 250" students. About 22 percent of the institutions had middle sized enrollment (251-500 or 501-750). The size of graduate student enrollment tended somewhat to be either large or small.

For undergraduate enrollments, the trend was similar to that of graduate enrollments. There were more institutions which fell into large or small number of student enrollment than medium size. About 55 percent of the respondents indicated that they had "more than 751" students and 23 percent of them reported that they were small in size, "under 250" in enrollment. The intervening categories combined (251-500, 501-750) were smaller (about 23% between the two categories) than either the small or large institutions. In Table 7, the distribution for the graduate and undergraduate enrollments is presented.
Table 7

**Frequency and Percent of Enrollment Size**

<table>
<thead>
<tr>
<th>Enrollment size</th>
<th>Graduate level</th>
<th>Undergraduate level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>frequency</td>
<td>percent</td>
</tr>
<tr>
<td>Under 250</td>
<td>13</td>
<td>28.3</td>
</tr>
<tr>
<td>251-500</td>
<td>4</td>
<td>8.7</td>
</tr>
<tr>
<td>501-750</td>
<td>6</td>
<td>13.0</td>
</tr>
<tr>
<td>751-1000</td>
<td>11</td>
<td>23.9</td>
</tr>
<tr>
<td>More than 1000</td>
<td>12</td>
<td>26.1</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Background:** The background of respondents in social science methods was divided into three sub-parts: formal training, informal training, and confidence level. The respondents were asked to indicate their background in such areas as needs assessment, program evaluation, quantitative research methods/techniques, statistics, tests and measurement, qualitative research methods/techniques, and program management. For all three sub-parts, respondents answered by use of a five-point scale with the response categories of "very high," "high," "moderate," "low," and "none," respectively.
Background gained through courses in college or at the graduate level was considered as formal training. Background from experiences such as attending conference and workshops and personal reading was considered as informal training.

1. Formal Training: Overall, the respondents felt that they had a moderate level (\( \bar{X} = 3.11 \)) of formal training (e.g., courses) in social science methods. Considering specific formal training, the means for six areas (except needs assessment) was generally similar, ranging from 3.03 to 3.40. Respondents reported a moderate level of formal training in quantitative research such as statistics, quantitative and qualitative research methods/techniques, and tests and measurement. Needs assessment training was the most limited of the social science techniques surveyed.

Among the areas, the respondents had the most formal training in tests and measurement (\( \bar{X} = 3.40 \)). They had the least formal training in needs assessment (\( \bar{X} = 2.33 \)). The distribution for formal training is presented in Table 8.
Table 8

Means and Standard Deviations for Formal Training in Social Science Methods

<table>
<thead>
<tr>
<th>Content area</th>
<th>n&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs assessment</td>
<td>58</td>
<td>2.33</td>
<td>.96</td>
</tr>
<tr>
<td>Program evaluation</td>
<td>58</td>
<td>3.03</td>
<td>1.21</td>
</tr>
<tr>
<td>Quantitative research methods/techniques</td>
<td>59</td>
<td>3.33</td>
<td>.77</td>
</tr>
<tr>
<td>Statistics</td>
<td>59</td>
<td>3.35</td>
<td>.76</td>
</tr>
<tr>
<td>Tests/measurement</td>
<td>60</td>
<td>3.40</td>
<td>.94</td>
</tr>
<tr>
<td>Qualitative research methods/techniques</td>
<td>59</td>
<td>3.10</td>
<td>1.02</td>
</tr>
<tr>
<td>Program management</td>
<td>59</td>
<td>3.22</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Grand Mean 3.11 .61

Note. Response categories: 5=Very High, 4=High, 3=Moderate, 2=Low, 1=None.

<sup>a</sup>The number of respondents differ among areas because of missing data.
2. Informal Training: The respondents were asked to indicate their level of informal training in the same areas just described by use of a five-point scale. In general, the respondents had a moderate level of informal training ($\bar{x}=3.26$). It was slightly higher than the mean (3.11) of formal training. The distribution for informal training is presented in Table 9.

An unique pattern for the informal training was that the seven areas could be divided into two major areas in terms of mean scores. One was a quantitative or statistical area such as quantitative research methods and techniques ($\bar{x}=2.98$), statistics ($\bar{x}=2.83$), and tests and measurement ($\bar{x}=3.01$). The second major area, with higher mean scores, could be categorized as a management area—needs assessment ($\bar{x}=3.23$), program evaluation ($\bar{x}=3.64$), and program management ($\bar{x}=3.80$). This data were somewhat different than formal training. In formal training statistics attained a mean of 3.35, while that of needs assessment was low ($\bar{x}=2.33$).
### Means and Standard Deviations for Informal Training in Social Science Methods

<table>
<thead>
<tr>
<th>Content area</th>
<th>n^a</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs assessment</td>
<td>56</td>
<td>3.23</td>
<td>.89</td>
</tr>
<tr>
<td>Program evaluation</td>
<td>54</td>
<td>3.64</td>
<td>.87</td>
</tr>
<tr>
<td>Quantitative research methods/techniques</td>
<td>54</td>
<td>2.98</td>
<td>.96</td>
</tr>
<tr>
<td>Statistics</td>
<td>54</td>
<td>2.83</td>
<td>.86</td>
</tr>
<tr>
<td>Tests/measurement</td>
<td>55</td>
<td>3.01</td>
<td>.99</td>
</tr>
<tr>
<td>Qualitative research methods/techniques</td>
<td>55</td>
<td>3.07</td>
<td>.99</td>
</tr>
<tr>
<td>Program management</td>
<td>56</td>
<td>3.80</td>
<td>1.05</td>
</tr>
<tr>
<td><strong>Grand mean</strong></td>
<td></td>
<td>3.26</td>
<td>.70</td>
</tr>
</tbody>
</table>

**Note.** Response categories: 5=Very High, 4=High, 3=Moderate, 2=Low, 1=None.

^aThe number of respondents differ among areas because of missing data.

3. **Confidence:** The respondents were also asked to indicate the extent of their confidence in the same content areas specified before. In general, the respondents perceived that their level of confidence (X̄=3.47) was more than "moderate." The level of their confidence was higher than
the mean for informal and formal training. Means and standard deviations of the confidence level are given in Table 10.

### Table 10
**Means and Standard Deviations for Confidence in Social Science Methods**

<table>
<thead>
<tr>
<th>Content area</th>
<th>n(^a)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs assessment</td>
<td>57</td>
<td>3.37</td>
<td>.82</td>
</tr>
<tr>
<td>Program evaluation</td>
<td>56</td>
<td>3.73</td>
<td>.77</td>
</tr>
<tr>
<td>Quantitative research methods/techniques</td>
<td>56</td>
<td>3.18</td>
<td>.92</td>
</tr>
<tr>
<td>Statistics</td>
<td>57</td>
<td>3.14</td>
<td>.85</td>
</tr>
<tr>
<td>Tests/measurement</td>
<td>58</td>
<td>3.31</td>
<td>.90</td>
</tr>
<tr>
<td>Qualitative research methods/techniques</td>
<td>57</td>
<td>3.33</td>
<td>.91</td>
</tr>
<tr>
<td>Program management</td>
<td>57</td>
<td>4.12</td>
<td>.85</td>
</tr>
<tr>
<td>Grand mean</td>
<td></td>
<td>3.47</td>
<td>.62</td>
</tr>
</tbody>
</table>

**Note.** Response categories: 5=Very High, 4=High, 3=Moderate, 2=Low, 1=None.

\(^a\)The number of respondents differ among areas because of missing data.
Further inspection revealed that the respondents felt most confident in program management (X=4.12), followed by program evaluation (X=3.73). They were least confident in statistics (X=3.14) and quantitative research methods/techniques (X=3.18). The means for the other areas were similar, ranging from 3.31 to 3.37. These trends were the same as informal training (the respondents felt more confident in the management areas than in the quantitative ones). It is noteworthy that respondents felt least confident in the areas in what they tended to have the most formal training: quantitative research and statistics.

**Attitudes Toward Needs Assessment:** The respondents were asked to indicate how they felt about needs assessment based upon their overall past experience with needs assessment or their perceptions of the term, needs assessment. They indicated their opinions by marking a five-point scale with response categories "strongly agree," "agree," "undecided," "disagree," and "strongly disagree." There were seventeen items designed to elicit respondent's attitudes about needs assessment. The mean score (3.91 with SD of .48) of their attitudes was rather high, indicating that their attitudes were quite positive toward needs assessment.
Type and Number of Involvement: The respondents were asked whether they had participated in a needs assessment study (provided data or answered a survey). Forty-nine (about 79%) out of sixty-two respondents reported that they had participated in a needs assessment by providing data and/or answering a survey. The next question was whether they had "led a need assessment study." Twenty-five respondents (about 40%) had led a needs assessment. Lastly, they were asked whether they had "been a member of a study." Thirty-one respondents (about 50%) had been a member of a study (See Table 11).

The respondents who indicated that they were involved in any of the three ways were asked to supply the number of times they had been involved in each category. There was substantial variation within the category. The range was from one to ten times in the "participation" category, ($\bar{X}=3.4$) from one to twenty in the "led a needs assessment," ($\bar{X}=2.9$) and from one to ten for "member of a study" ($\bar{X}=2.3$). The average number of times suggests that respondents were more involved in participating and leading a needs assessment study than being a member of a study team.
Table 11

Frequency of Involvement Types and Means for Involvement

<table>
<thead>
<tr>
<th>Involvement type</th>
<th>Number responding&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Number of times involved</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated in a needs assessment</td>
<td>49 (79%)</td>
<td>3.42</td>
<td>.24</td>
</tr>
<tr>
<td>Led a needs assessment</td>
<td>25 (40%)</td>
<td>2.94</td>
<td>.07</td>
</tr>
<tr>
<td>Been a member of a study</td>
<td>31 (50%)</td>
<td>2.31</td>
<td>.87</td>
</tr>
</tbody>
</table>

<sup>a</sup>Does not total to 100% because respondents could check more than one type of involvement.

**Involvement:** The data for involvement were collected in terms of three dimensions: on-going involvement, communication, and commitment. The respondents were asked to indicate the level of the three dimensions on the five-point scale from "very extensively" to "never," according to the type of involvement specified in the previous question. For example, when they checked "yes" for "led a needs assessment study," they were asked to respond to the items about serving as a leader. If they answered to "yes" to "been a member of a study," they were asked to respond to the questions as a member. If they answered "yes" to the both categories, such as "led a needs assessment," and
"been a member of a study," they were asked to indicate the level of involvement for the both categories.

Twenty-four respondents responded to items about serving as a leader. Thirty-one respondents reported service as a study member (See Table 11). Seventeen had had experience in needs assessment as both a leader as well as a member and therefore answered this set of involvement questions based upon both perspectives.

1. On-Going Involvement for the Two Groups: On-going involvement referred to respondents' involvement in four stages of needs assessment: (a) discussion of goals, (b) selection of strategy, (c) collection of data, and (d) preparation of reports. The respondents were asked to indicate the level of their involvement in the four stages according to their involvement as a leader and/or as a member.

Overall, the level of involvement of the respondents as leaders was in the "extensively" category—a high involvement level ($\bar{X}=4.11$, $SD=.88$). Their involvement level for three (discussion of goals, selection of strategy, and preparation of reports) of the four stages was the same, 4.25. The respondents' level of involvement in data collection was lower, 3.71, but still more than "often."
In general, the level of involvement as members ($\bar{X}=3.45$) was between the "often" and "extensively" responses. Compared to the leader group, means for the member group was somewhat different and lower, ranging from 3.19 of mean to 3.84. Among the stages, the level of involvement in discussion of goals ($\bar{X}=3.84$) was highest, while preparation of results received the lowest mean (3.19).

Table 12
Means and Standard Deviations of On-going Involvement for the Two Groups

<table>
<thead>
<tr>
<th>On-going involvement activity</th>
<th>Leader</th>
<th>Member</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Mean</td>
</tr>
<tr>
<td>Discussion of goals</td>
<td>24</td>
<td>4.25</td>
</tr>
<tr>
<td>Selection of strategy</td>
<td>24</td>
<td>4.25</td>
</tr>
<tr>
<td>Selection of strategy</td>
<td>24</td>
<td>3.71</td>
</tr>
<tr>
<td>Preparation of results</td>
<td>24</td>
<td>4.25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>4.11</td>
</tr>
</tbody>
</table>

*Note. Response categories: 5=Very Extensively, 4=Extensively, 3=Often, 2=Seldom, 1=Never.*

<sup>a</sup>Total number of the respondents.

The respondents' level of involvement as leaders
was considerably higher than as a member \( (\bar{X}=3.45) \). Also, the levels of involvement as a leader for the all four stages were higher than as a member. In Table 12 the means and standard deviations are reported for the two groups for the stages.

2. **Communication**: The respondents were asked to indicate the level of their communication with/to needs assessors in four areas by use of a five-point scale response categories: "strongly agree," "agree," "undecided," "disagree," and "strongly disagree." As in the on-going involvement phase, they were asked to respond according to their responses as a leader and/or as member. The questions in this section were (a) "frequent discussion," (b) "opportunities to express ideas/concerns," (c) "my concerns/ideas were addressed," and (d) "understanding the concern of others." In Table 13, the means and standard deviations for communication for the groups are provided.

The variation across the questions and across the groups was very small. The mean range for the leader group was from 4.31 to 4.58 and from 4.10 to 4.35 for the member group. The overall mean score for the leader was 4.41 and 4.23 for the member group. The means for the leader group were slightly higher than for the member group for all four areas. The mean scores would be suggestive of the fact
areas. The mean scores would be suggestive of the fact that the respondents tended to communicate with others quite well.

Table 13

Mean and Standard Deviations of Communication for the Two Groups

<table>
<thead>
<tr>
<th>Communication area</th>
<th>Leader</th>
<th></th>
<th></th>
<th></th>
<th>Member</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n¹</td>
<td>mean</td>
<td>SD</td>
<td>SD</td>
<td>n¹</td>
<td>mean</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>Frequent discussion</td>
<td>24</td>
<td>4.33</td>
<td>.92</td>
<td>.65</td>
<td>31</td>
<td>4.32</td>
<td>.65</td>
<td>.65</td>
</tr>
<tr>
<td>Opportunities to express</td>
<td>24</td>
<td>4.58</td>
<td>.50</td>
<td>.66</td>
<td>31</td>
<td>4.35</td>
<td>.66</td>
<td>.66</td>
</tr>
<tr>
<td>My concerns and ideas</td>
<td>24</td>
<td>4.38</td>
<td>.65</td>
<td>.79</td>
<td>31</td>
<td>4.10</td>
<td>.79</td>
<td>.79</td>
</tr>
<tr>
<td>My understanding of others</td>
<td>24</td>
<td>4.33</td>
<td>.56</td>
<td>.52</td>
<td>31</td>
<td>4.16</td>
<td>.52</td>
<td>.52</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4.41</td>
<td>.48</td>
<td>.46</td>
<td></td>
<td>4.23</td>
<td>.46</td>
<td>.46</td>
</tr>
</tbody>
</table>

Note. Response categories: 5=Strongly Agree, 4=Agree, 3=Undecided, 2=Disagree, 1=Strongly Disagree.

¹Total number of respondents.

3. Commitment: The third dimension of involvement sought information concerning commitment to four different areas: (a) "completion of the needs assessment," (b) "quality of needs assessment," (c) "personal involvement," and (d) "utilization of need assessment results." The respondents
indicated their level of commitment by responding to a five-point scale with response categories of "strongly agree," "agree," "undecided," "disagree," and "strongly disagree."

In general, the commitment level of the respondents was high for both groups. However, the leader group tended to feel more highly committed (\(\bar{X}=4.52\)) than did the group members (\(\bar{X}=4.13\)). The means across the areas for leader were almost the same, ranging from 4.25 to 4.58 (the mean for "quality of study" and "personal involvement" was the same, 4.50). "Utilization of results" received the highest mean (4.58) among the five areas, while the mean (4.25) for "completion of a needs assessment study" was the lowest.

Similarly, the member group indicated a fairly uniform degree of commitment—a high degree of commitment, ranging from 3.97 to 4.19 to the all four areas. The mean for completion of the needs assessment and the study quality was the same (4.19)—a high level of commitment, while the mean for personal involvement was 3.97—a somewhat lower, but nevertheless a high level of commitment. Clearly, the responding administrators have a strong commitment to the needs assessment process. Table 14 provides the means and standard deviations distribution for the groups.
Table 14
Means and Standard Deviations of Commitment for the Two Groups

<table>
<thead>
<tr>
<th>Commitment area</th>
<th>Leader</th>
<th></th>
<th>Member</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>na</td>
<td>Leader</td>
<td>na</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean SD</td>
<td></td>
<td>Mean SD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n^a</td>
<td></td>
<td>n^a</td>
</tr>
<tr>
<td>Completion of a needs assessment study</td>
<td></td>
<td>24 4.25 .66</td>
<td>31 4.19 .70</td>
<td></td>
</tr>
<tr>
<td>Quality of study</td>
<td></td>
<td>24 4.50 1.72</td>
<td>31 4.19 .70</td>
<td></td>
</tr>
<tr>
<td>Personal involvement</td>
<td></td>
<td>24 4.50 .59</td>
<td>31 3.97 .91</td>
<td></td>
</tr>
<tr>
<td>Utilization of results</td>
<td></td>
<td>24 4.58 .58</td>
<td>31 4.16 .69</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4.52 .56</td>
<td>4.13 .66</td>
<td></td>
</tr>
</tbody>
</table>

Note. Response categories: 5=Strongly Agree, 4=Agree, 3=Undecided, 2=Disagree 1=Strongly Disagree.

^aTotal number of respondents.

Utilization of Needs Assessment: The respondents were asked to indicate whether they utilized the results of a needs assessment in the past five years; and, if so, they were asked to indicate whether the needs assessment was commissioned by their institutions or by an external agency.

Forty-four respondents, of sixty-two respondents, answered "yes." This represented about 71 percent of the
total number of respondents. Ten respondents (16%) reported "No." Eight persons did not answer to this question.

Overall, needs assessment results appear to be utilized even though the data did not show how much they had utilized them. Table 15 contains data about the utilization of the results of the needs assessment.

Table 15

Frequency and Percentage of Utilization

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>8</td>
<td>12.9</td>
</tr>
<tr>
<td>Yes</td>
<td>44</td>
<td>70.9</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
<td>16.1</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>99.9(^a)</td>
</tr>
</tbody>
</table>

\(^a\)Rounding error.

In response to the second question—whether the needs assessment was commissioned by an institution and/or an external agency. Respondents could answer to the both categories. Forty-three respondents (about 82%) indicated that the needs assessment was commissioned by their
institutions. Fourteen reported that the needs assessment was commissioned by an external agency. Only one respondent reported that the needs assessment was commissioned by solely an external agency. Thirteen of forty-three respondents indicated that needs assessments were commissioned by their institution and external agencies. Data analysis was done on the base of forty-four respondents who reported that they had utilized needs assessment results. The frequency and percentage distribution of types of commissioning sources are presented in Table 16.

Table 16
Frequency and Percentage of Commission Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Percentage$^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution</td>
<td>43</td>
<td>98%</td>
</tr>
<tr>
<td>External agency</td>
<td>14</td>
<td>32%</td>
</tr>
<tr>
<td>Total</td>
<td>57$^a$</td>
<td></td>
</tr>
</tbody>
</table>

$^a$Does not total to 44 because respondents could check more than one type of commission.

$^b$Does not total to 100% because respondents could check more than one type commission.
Utilization of Needs Assessment Results: Utilization was the dependent variable in this study. Utilization was used as a broad concept and included both instrumental and conceptual utilization. Instrumental utilization referred to direct and measurable impact on decision-making. Conceptual utilization referred to more indirect impact such as influencing thinking and attitudes.

1. Instrumental Utilization: Respondents were asked to indicate the level of utilization in the following areas by means of a six-point scale: (a)" development of new programs/policies," (b) "modification of existing programs/policies," (c) "allocation of revenue and resources," (d) "commission of second report or study," and (e) "confirmation of what the institution already knew." The six-point scale was: "very high," "high," "moderate," "little," "none," and "don't know." Table 17 provides the means and standard deviations of instrumental utilization for the five decision areas.
Table 17

Means and Standard Deviations for Instrumental Utilization

<table>
<thead>
<tr>
<th>Decision area</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of new programs/policies</td>
<td>44</td>
<td>4.78</td>
<td>.96</td>
</tr>
<tr>
<td>Modification of existing programs/policies</td>
<td>44</td>
<td>4.59</td>
<td>1.12</td>
</tr>
<tr>
<td>Allocation of revenue and resources</td>
<td>44</td>
<td>4.20</td>
<td>1.09</td>
</tr>
<tr>
<td>Commissioning of second report or study</td>
<td>44</td>
<td>3.25</td>
<td>1.38</td>
</tr>
<tr>
<td>Confirmation of what the institution already knew</td>
<td>44</td>
<td>3.95</td>
<td>1.09</td>
</tr>
<tr>
<td>Grand mean</td>
<td></td>
<td>4.15</td>
<td>.61</td>
</tr>
</tbody>
</table>

Note. Response categories: 6=Very high, 5=High, 4=Moderate, 3=Little, 2=None, 1=Don't Know.

aTotal number of respondents.

The respondents perceived that the results of needs assessments were instrumentally used to a moderate degree ($\bar{x}=4.15$, $SD=.61$). When considering decision areas, the respondents most used the results for "development of new programs/policies" ($\bar{x}=4.78$, $SD=.96$), followed by "modification of existing programs" ($\bar{x}=4.59$, $SD=1.12$) and "making decisions about allocation of revenue and resources" ($\bar{x}=4.30$, $SD=1.09$). Making decisions about
"commissioning of second reports and studies" received a fairly low score of 3.25, i.e., the results were not used very much for this purpose. "Confirmation of what the institution already knew" received a moderate score of 3.96.

2. **Conceptual Utilization:** The respondents also were asked to indicate the level of conceptual utilization in five decision areas. The six-point scale specified before was used as the response. The five areas were (a) "challenging thinking about current programs/policies," (b) "changing the way in which the institution viewed current programs/policies," (c) "stimulating new discussion," (d) "raising new questions related to planning processes," and (e) "causing others in the department to rethink program development." Table 18 contains data about conceptual utilization for the five different conceptual decisions.

The overall mean score for the conceptual utilization was moderately high ($\bar{X}=4.56$). This mean score indicated that the respondents used the results of needs assessment somewhat more conceptually than instrumentally ($\bar{X}=4.15$). When considering each individual decision area, "stimulating thinking" ($\bar{X}=4.93$, SD=.95) was highest, followed by "raising new questions related to planning processes" ($\bar{X}=4.70$, SD=.90). The lowest decision area was
"changed the way in which the institution viewed current programs/policies" ($\bar{X}=4.30$, SD=.95). The other two areas ("challenging thinking" and "caused others to rethink") had almost the same means, 4.48 and 4.40.

Table 18

Means and Standard Deviations for Conceptual Utilization

<table>
<thead>
<tr>
<th>Decision area</th>
<th>n$^a$</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenging thinking about current programs/policies</td>
<td>44</td>
<td>4.48</td>
<td>1.11</td>
</tr>
<tr>
<td>Changed the way in which the institution viewed current programs/policies</td>
<td>44</td>
<td>4.30</td>
<td>.95</td>
</tr>
<tr>
<td>Stimulated new discussions</td>
<td>44</td>
<td>4.93</td>
<td>.82</td>
</tr>
<tr>
<td>Raised new questions related to planning processes</td>
<td>44</td>
<td>4.70</td>
<td>.90</td>
</tr>
<tr>
<td>Caused others in the department to rethink program development</td>
<td>44</td>
<td>4.40</td>
<td>1.06</td>
</tr>
<tr>
<td>Grand mean</td>
<td></td>
<td>4.56</td>
<td>.69</td>
</tr>
</tbody>
</table>

Note. Response categories: 6=Very high, 5=High, 4=Moderate, 3=Little, 2=None, 1=Don’t Know.

$^a$Total number of respondents.
Needs Assessment Study Factor: The respondents were asked to indicate the extent to which three factors selected were (or might be) important to utilization. A four-point scale was used: "very important," "important," "somewhat important," and "not important." The three factors were methodological quality, report style, and timing of reports. Each use factor had two to four items to measure the level of their importance relative to utilization. Three items were designed to measure the methodological quality, four items for report style, and two items for the timeliness of needs assessment reports.

There was some although not a greater amount of variation in the mean scores within and across the three factors. The data in Table 19 show the following means: 3.34 for timeliness of report, 3.32 for methodological quality, and 3.04 for the report style. Respondents reported that timeliness and methodological quality were a little more important than the report style.

When considering the specific items for each use factor, the mean (3.49) of timeliness of the report was highest among these, while the mean (2.49) for the "use of jargon" was lowest. The means for the other sub-factors were very similar, ranging from 3.04 to 3.39, a fairly high importance level.
Table 19

Means and Standard Deviations for the Needs Assessment Study Factor

<table>
<thead>
<tr>
<th>Factor</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methodological quality</td>
<td>51</td>
<td>3.32</td>
<td>.58</td>
</tr>
<tr>
<td>Overall quality of a study</td>
<td>51</td>
<td>3.33</td>
<td>.65</td>
</tr>
<tr>
<td>Sampling procedures</td>
<td>51</td>
<td>3.23</td>
<td>.71</td>
</tr>
<tr>
<td>Instrument for data collection</td>
<td>51</td>
<td>3.39</td>
<td>.70</td>
</tr>
<tr>
<td>Report style</td>
<td>50</td>
<td>3.04</td>
<td>.52</td>
</tr>
<tr>
<td>Use of jargon</td>
<td>50</td>
<td>2.49</td>
<td>.92</td>
</tr>
<tr>
<td>Understanding technical terms</td>
<td>51</td>
<td>3.04</td>
<td>.75</td>
</tr>
<tr>
<td>Statistical information</td>
<td>51</td>
<td>3.25</td>
<td>.66</td>
</tr>
<tr>
<td>Qualitative information</td>
<td>51</td>
<td>3.41</td>
<td>.57</td>
</tr>
<tr>
<td>Timing of reports</td>
<td>51</td>
<td>3.34</td>
<td>.61</td>
</tr>
<tr>
<td>Timing of completion of a needs assessment study</td>
<td>51</td>
<td>3.19</td>
<td>.66</td>
</tr>
<tr>
<td>Timeliness of report</td>
<td>51</td>
<td>3.49</td>
<td>.64</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.20</td>
<td>.47</td>
</tr>
</tbody>
</table>

Note. response categories: 4=Very Important, 3=Important, 2=Somewhat Important, 1=Not Important.

The number of respondents differ among variables because of missing data.
Part 3: Reliability

The instrument had two major sections. One was for measures of independent variables and another for the dependent variable. The independent variables were divided into factors related to decision-makers and factors related to the needs assessment study itself. The factors related to decision-makers included administrative attitudes, involvement in the needs assessment process, and training/background in social science methods. The factors related to the needs assessment study included methodological quality, report style, and timing of reports. As mentioned before, the items to measure the factors related to the needs assessment study were small, ranging from two to four. Therefore, the factors were combined into one variable, a needs assessment study factor. The dependent variable was the utilization of needs assessment results.

As can be seen in Table 20, the number of respondents differed among variables. There were only twenty-four respondents for the leader group, thirty-one for the member group, and forty-four for utilization. The different number of respondents for the other variables (background and the factor related to the needs assessment study) resulted from respondents branching out of part of the instrument or simply not providing data.
Table 20

Reliability for Independent and Dependent Variables

<table>
<thead>
<tr>
<th>Variable (total number of respondents)</th>
<th>Cronbach’ Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes (62)</td>
<td>.91</td>
</tr>
<tr>
<td>Involvement</td>
<td>.90</td>
</tr>
<tr>
<td>As a leader (24)</td>
<td>.88</td>
</tr>
<tr>
<td>As a member (34)</td>
<td>.86</td>
</tr>
<tr>
<td>Background (49)</td>
<td>.88</td>
</tr>
<tr>
<td>Formal background (57)</td>
<td>.71</td>
</tr>
<tr>
<td>Informal background (49)</td>
<td>.81</td>
</tr>
<tr>
<td>Confidence (51)</td>
<td>.81</td>
</tr>
<tr>
<td>Needs assessment study factor (50)</td>
<td>.84</td>
</tr>
<tr>
<td>Utilization (44)</td>
<td>.70</td>
</tr>
<tr>
<td>Instrument use (44)</td>
<td>.44</td>
</tr>
<tr>
<td>Conceptual use (44)</td>
<td>.75</td>
</tr>
</tbody>
</table>

1. Factors related to Decision-makers

a) Attitudes: There were seventeen items measuring the level of attitudes of decision-makers. All the items used a five-point scale that ranged from "strongly agree" to "strongly disagree." The reliability for the attitude scale was .91.

b) Involvement in Needs Assessment: Twelve items were developed to measure the level of decision-makers’
involvement in needs assessment. The level of involvement was measured on two categories according to the respondent's experiences as a leader or as a member of a needs assessment. Cronbach's Alphas were computed for the each category (as a leader or as member). The reliability for the leader group was .88, and .86 for the member group.

c) Background of Decision-makers in Social Science Methods: Three sub-parts (formal, informal, and confidence) were designed to measure the extent of their background. For all sub-parts, the respondents were asked to indicate the level of their background in seven areas: needs assessment, program evaluation, quantitative research methods/techniques, statistics, tests and measurement, qualitative research methods/techniques, and program management. The response categories were from "very high" to "none."

Scores were obtained by summing across the seven areas for each part. Also a total score on this background scale was calculated by summing across the responses to the items on the three sub-parts. The reliability for the background scale as a whole was .88. The reliability for the formal training scale was .71 and .81 for both informal training and confidence.
2. Needs Assessment Study Factor

There were three sub-factors related to the needs assessment study factor—methodological quality, report style, and timeliness. Each sub-factor had two to four items to measure the level of the factors. Because the numbers of the items (a total of nine items) were small, the reliability estimate was calculated as a total by summing across the nine items. The reliability for this nine item scale was .84.

3. Reliability of the Dependent Variable

Utilization of needs assessment results was the dependent variable in this study. To measure the level of utilization, ten items were developed including both instrumental and conceptual utilization. The items employed a six-point scale. A total score on the utilization scale was calculated by summing across the responses to the ten items. The reliability estimate for this ten item scale was .70. This reliability was lower than the reliability estimates for the independent variables. However, according to Nunnally (1978), reliability of .60 -.70 is a satisfactory level for an early stage of research such as is the case in this study.

The scale for utilization was also divided into two categories: instrumental and conceptual utilization. Each
category had five items. The reliability for instrumental utilization was .44 and for conceptual utilization it was .75.

Part 4: Factor Analysis

The intent of performing factor analysis in this study was to examine the nature of scales and to better understand results. In order to determine the number of factors to retain, the criteria—an eigenvalue greater than 1.00 and a scree test of the eigenvalue—were employed. Another criterion was that a factor should have at least three items, because a factor with at least 3 items is considered "informative" (Thurstone, in Kim & Mueller, 1978). This suggestion is particularly true in exploratory factor analysis which would be appropriate for this study. Then, an oblique rotation was used to obtain more meaningful and interpretable results.

Based on the obtained rotated factor pattern, item-dimensions were developed by assigning an item to the dimension on which it had the highest acceptable factor loading. The minimum acceptable loading for this analysis was set ±.30. Each factor was given a tentative title to reflect the meaning of the items comprising it.
Attitudes

The factoring of the attitudes items produced four factors with eigenvalues greater than 1.00. To determine the appropriate number of factors to retain for analysis, a scree test of the eigenvalues and the number of items on each factors were examined. One factor failed to load more than three items and therefore was omitted. The remaining three factors were rotated using an oblique technique. The three factors accounted for about 60 percent of the variance, with the strongest factor (Factor I) accounting for 43 percent of that variance. With the oblique rotation, there are intercorrelations among the factors. The intercorrelations are given in Table 21.

Table 21

Intercorrelations Among Rotated Factors for the Attitude Scale

<table>
<thead>
<tr>
<th></th>
<th>Factor I</th>
<th>Factor II</th>
<th>Factor III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor I</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor II</td>
<td>.57</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor III</td>
<td>.55</td>
<td>.60</td>
<td>1.00</td>
</tr>
</tbody>
</table>
When considering the specific items for each use factor, the mean (3.49) of timeliness of the report was highest among these, while the mean (2.49) for the "use of jargon" was lowest. The means for the other sub-factors were very similar, ranging from 3.04 to 3.39, a fairly high importance level.

Based on the obtained rotated factor pattern, item-dimensions were developed. Factor I consisted of four items. The factor I was entitled "value of needs assessments." Nine items that composed Factor II could be characterized by the label "problems and limitations of needs assessments." Factor III was entitled "specific planning uses." Table 22, 23, and 24 present the three rotated factors and item-factor loadings for the seventeen items measuring attitudes. The item number is listed in the left-hand column, and the factor loading is given in the right-hand column. Items are listed from the highest to lowest loading in each of the three finalized factors using the criterion value of ±.30.
Table 22

**Rotated Factor I and Factor Loadings for Attitudes**

<table>
<thead>
<tr>
<th>Questionnaire Item Number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Essential for identifying current problems</td>
<td>.92</td>
</tr>
<tr>
<td>12</td>
<td>An activity in which all administrators should be involved</td>
<td>.84</td>
</tr>
<tr>
<td>2</td>
<td>Essential for identifying problems that will occur in the future</td>
<td>.72</td>
</tr>
<tr>
<td>3</td>
<td>What we already know rather than providing new insights/ideas</td>
<td>.48</td>
</tr>
</tbody>
</table>
## Table 23
**Rotated Factor II and Factor Loadings for Attitudes**

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Too demanding of staff time</td>
<td>.85</td>
</tr>
<tr>
<td>9</td>
<td>Uses too much information that is external to our institution</td>
<td>.83</td>
</tr>
<tr>
<td>15</td>
<td>A lot more scientific than required for studying educational problems</td>
<td>.73</td>
</tr>
<tr>
<td>16</td>
<td>Worth the time spent</td>
<td>.65</td>
</tr>
<tr>
<td>11</td>
<td>Doesn't lead to meaningful change</td>
<td>.63</td>
</tr>
<tr>
<td>17</td>
<td>Worth the money spent</td>
<td>.59</td>
</tr>
<tr>
<td>13</td>
<td>A mechanism for staff to really look at problems</td>
<td>.58</td>
</tr>
<tr>
<td>10</td>
<td>Doesn't result in new ideas</td>
<td>.53</td>
</tr>
<tr>
<td>4</td>
<td>Focus too much on problems</td>
<td>.42</td>
</tr>
</tbody>
</table>
Table 24

Rotated Factor III and Factor Loadings for Attitudes

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Helps to direct resources to the critically important problems</td>
<td>.98</td>
</tr>
<tr>
<td>5</td>
<td>Helps to establish critical program</td>
<td>.83</td>
</tr>
<tr>
<td>7</td>
<td>Provides important information</td>
<td>.61</td>
</tr>
<tr>
<td>8</td>
<td>Is helpful in making decisions</td>
<td>.50</td>
</tr>
</tbody>
</table>

Involvement

The data for involvement were collected in two categories---as a leader and as a member. For each category, there were three a priori dimensions: on-going involvement, communication, and commitment. One interest in performing a factor analysis was to examine whether the level of involvement could be explained by the pre-established three dimensions.

First, factor analysis for leader involvement was performed. The factoring of twelve items for the leader involvement produced three factors. One factor failed to meet the criterion of containing more than three items and was deleted. The remaining two factors were rotated using the oblique technique. The two factors accounted for 64
percent of the variance, with 52 percent of the variance explained by Factor I. Intercorrelations between the two factors are presented in Table 25.

Table 25
**Intercorrelation Between Factors for the Leader Involvement Scale**

<table>
<thead>
<tr>
<th></th>
<th>Factor I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor I</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor II</td>
<td>.45</td>
<td>1.00</td>
</tr>
</tbody>
</table>

On the basis of the oblique rotation, item-dimensions were developed. All eight items designed to measure administrators' communication with/to needs assessors and other members, and their commitment were loaded on the first factor. Therefore, the first factor was entitled "communication and commitment." The second factor contained all items which were designed to measure on-going involvement of administrators. The original name, "on-going involvement," was given to the factor. The two rotated factors and item-factor loadings are given in Table 26 and 27.
Table 26

Rotated Factor I and Factor Loadings for Leader Involvement

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Opportunities to express my concerns</td>
<td>.97</td>
</tr>
<tr>
<td>11</td>
<td>Committed to active personal involvement</td>
<td>.93</td>
</tr>
<tr>
<td>12</td>
<td>Committed to utilizing the needs assessment results</td>
<td>.84</td>
</tr>
<tr>
<td>7</td>
<td>My concerns/ideas were addressed</td>
<td>.84</td>
</tr>
<tr>
<td>9</td>
<td>Committed to ensuring the completion of needs assessment study</td>
<td>.78</td>
</tr>
<tr>
<td>10</td>
<td>Made a special effort to produce a quality needs assessment</td>
<td>.75</td>
</tr>
<tr>
<td>8</td>
<td>Understanding the concerns of others</td>
<td>.71</td>
</tr>
<tr>
<td>5</td>
<td>Frequent discussions throughout needs assessment</td>
<td>.46</td>
</tr>
</tbody>
</table>
Table 27

**Rotated Factor II and Factor Loadings for Leader Involvement**

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Collection of the needs assessment data</td>
<td>.95</td>
</tr>
<tr>
<td>4</td>
<td>Preparation of the needs assessment report</td>
<td>.82</td>
</tr>
<tr>
<td>1</td>
<td>Discussion of needs assessment goals</td>
<td>.53</td>
</tr>
<tr>
<td>2</td>
<td>Selection of the strategy for the needs assessment design</td>
<td>.51</td>
</tr>
</tbody>
</table>

The results of the factor analysis for member involvement yielded three factors with eigenvalues greater than 1.00. One factor contained only two items. Therefore, only two factors were used for oblique rotation to obtain more meaningful and interpretable results. The two factors accounted for 58 percent of the variance, with 46 percent of the variance explained by Factor I. Intercorrelations between the two rotated factors are given in Table 28. Compared to the intercorrelations for the attitude and leader involvement scales, the correlation between factors in the member involvement scale was lower (.35).
Table 28

**Intercorrelation Between Factors for the Member Involvement Scale**

<table>
<thead>
<tr>
<th></th>
<th>Factors I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor I</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor II</td>
<td>.35</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 29

**Rotated Factor I and Factor Loadings for Member Involvement Questionnaire**

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Collection of the needs assessment data</td>
<td>.89</td>
</tr>
<tr>
<td>4</td>
<td>Preparation of the needs assessment reports</td>
<td>.54</td>
</tr>
<tr>
<td>8</td>
<td>Understanding of concerns of others</td>
<td>.51</td>
</tr>
</tbody>
</table>

As can be seen in Table 29 and 30, the first factor was loaded by two items which were designed to measure the degree of on-going involvement. This factor was also loaded by one item designed to measure the degree of communication. The second factor was loaded by the combination of eight items (two items for on-going
involvement, two for communication, and four for commitment).

Table 30

**Rotated Factor II and Factor Loadings for Member Involvement**

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discussion of needs assessment goals</td>
<td>.86</td>
</tr>
<tr>
<td>11</td>
<td>Committed to active personal involvement throughout the needs assessment process</td>
<td>.83</td>
</tr>
<tr>
<td>2</td>
<td>Selection of the strategy for the needs assessment design</td>
<td>.79</td>
</tr>
<tr>
<td>7</td>
<td>My concerns/ideas were addressed</td>
<td>.76</td>
</tr>
<tr>
<td>9</td>
<td>Committed to ensuring the completion of the needs assessment study</td>
<td>.74</td>
</tr>
<tr>
<td>12</td>
<td>Committed to utilizing the needs assessment results</td>
<td>.74</td>
</tr>
<tr>
<td>10</td>
<td>Made special effort to produce a high quality needs assessment</td>
<td>.73</td>
</tr>
<tr>
<td>5</td>
<td>Frequent discussions throughout the needs assessment</td>
<td>.51</td>
</tr>
</tbody>
</table>

Although the factoring item patterns for the leader and the member groups were not identical, they were somewhat similar. Most of items (six out of eight)
measuring communication and commitment were loaded on one factor, while two items (of four items) measuring on-going involvement were loaded on the other factor.

**Needs Assessment Study Factor**

The results of factor analysis yielded two factors with eigenvalues greater than 1.00. The two factors had more than three items. These two factors were rotated using an oblique technique. The two factors accounted for 60 percent of the variance, with the strongest factor (Factor I) accounting for 46 percent of that variance. Intercorrelations between the two rotated factors were given in Table 31.

**Table 31**

**Intercorrelation Among Factors for the Needs Assessment Study Factor Scale**

<table>
<thead>
<tr>
<th></th>
<th>Factor I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor I</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor II</td>
<td>.54</td>
<td>1.00</td>
</tr>
</tbody>
</table>
The first factor was loaded by four items (two items designed to measure methodological quality, and two for report style). The second factor was loaded by the combination of five items. Two items were designed to measure timing of reports, two for report style, and one for methodological quality. The first factor was entitled "data collection methodology." The second factor was named "report language and timing." Table 32 and 33 present the two rotated factors and item-loadings.

Table 32

Rotated Factor I and Factor Loadings for the Needs Assessment Study Factor

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Statistical information</td>
<td>.85</td>
</tr>
<tr>
<td>3</td>
<td>Appropriateness of the instrument</td>
<td>.82</td>
</tr>
<tr>
<td>2</td>
<td>Adequacy of the sampling procedure</td>
<td>.79</td>
</tr>
<tr>
<td>7</td>
<td>Qualitative information</td>
<td>.68</td>
</tr>
</tbody>
</table>
Table 33

Rotated Factor II and Factor Loadings for the Needs Assessment Study Factor

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Timeliness of reports</td>
<td>0.88</td>
</tr>
<tr>
<td>8</td>
<td>Timing of completion of needs assessment</td>
<td>0.87</td>
</tr>
<tr>
<td>4</td>
<td>Use of jargon/technical language</td>
<td>0.74</td>
</tr>
<tr>
<td>5</td>
<td>Understanding of technical terms</td>
<td>0.52</td>
</tr>
<tr>
<td>1</td>
<td>Overall methodological quality</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Utilization

Factor analysis for utilization scale produced two factors following oblique rotation and a scree test of eigenvalues. One item had a very low loading of 0.13 and was therefore omitted. Five items (designed to measure the degree of conceptual utilization) loaded on the first factor. This factor was also loaded by two items which dealt with instrumental utilization. The second factor was loaded by three items. But one item had a very low loading of 0.13 and was therefore omitted. The two factors accounted for 50 percent of the variance.

The first factor was titled with "a combination of conceptual and instrumental utilization" and the second
factor with "instrumental utilization." The results from factoring analysis for utilization are given in Tables 34, 35, and 36.

Table 34

<table>
<thead>
<tr>
<th></th>
<th>Factor I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor I</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor II</td>
<td>.29</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Intercorrelation among Factors for the Utilization Scale
Table 35

**Rotated Factor I and Factor Loadings for Utilization**

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>h</td>
<td>Stimulated new discussions within the institution or department</td>
<td>.86</td>
</tr>
<tr>
<td>i</td>
<td>Raised new questions related to new programs</td>
<td>.73</td>
</tr>
<tr>
<td>a</td>
<td>Were used to develop new programs/policies</td>
<td>.73</td>
</tr>
<tr>
<td>j</td>
<td>Caused others in the department to rethink program development</td>
<td>.64</td>
</tr>
<tr>
<td>f</td>
<td>Challenged thinking about current programs/policies</td>
<td>.50</td>
</tr>
<tr>
<td>g</td>
<td>Changed the ways in which the institution viewed current programs/policies</td>
<td>.49</td>
</tr>
<tr>
<td>d</td>
<td>Were used to commission a second report or study</td>
<td>.44</td>
</tr>
</tbody>
</table>

Table 36

**Rotated Factor II and Factor Loadings for Utilization**

<table>
<thead>
<tr>
<th>Questionnaire item number</th>
<th>Statement</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>Were used to modify existing programs/policies</td>
<td>.90</td>
</tr>
<tr>
<td>c</td>
<td>Were used to allocate revenue and resources</td>
<td>.75</td>
</tr>
</tbody>
</table>
The main purpose of this study was to examine the relationships between four independent variables and a dependent variable. The independent variables were divided into two: One was factors related to the decision-maker and the other was factors related to a needs assessment study. Factors related to decision-makers included administrative attitudes, involvement in needs assessment process, and research/evaluation background. Factors related to a needs assessment study were methodological quality, report style, and timing of reports. Because the numbers of items (a total of 9 items) to measure the level of each factors were small (each factor had two to four items), all the three factors were combined into one variable, needs assessment study factor. As a result, there were four independent variables (administrators' attitudes, involvement in the needs assessment process, research/evaluation background, needs assessment study factor), and one dependent variable—utilization of needs assessment results.

Correlational analysis was used to determine whether or not independent variables were significantly related to the utilization of needs assessment results. Pearson Product Moment Correlation Coefficients were calculated to determine the degree of relationship between variables.
(each independent variable and the dependent variable). Two criteria were used in evaluating the meaningfulness of correlations. First, the P value was set .05 level. Second, the correlation coefficient had to be high enough to be meaningful. A correlation of .329 or greater was needed for the working sample (N=34) in order for the correlation to be statistically significant (Minium, 1978). The statistical package (SAS was used for correlational analysis) ignored all cases which had missing data on any of the five variables (four independent variables and one dependent variable). As a result, only thirty-four respondents were used for the correlational analysis.

As can be seen in Table 37, attitudes of administrators toward needs assessment was significantly related to utilization of needs assessment results \((r=.59, p=.0002)\). Their involvement in needs assessment activities was also significantly correlated with utilization of needs assessment results \((r=.49, p=.0031)\).

Unlike the attitudes and involvement factors, background in social science methods was not significantly correlated with utilization of needs assessment results. The correlation coefficient \((r=.30)\) for the needs assessment study factor was somewhat higher than for the training/background but not statistically significant at the .05 level.
Table 37

**Pearson Product Moment Correlation and P Value Between Independent and Dependent Variables**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>I</th>
<th>B</th>
<th>N</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1.00</td>
<td>.28</td>
<td>.13</td>
<td>.42</td>
<td>.59</td>
</tr>
<tr>
<td>I</td>
<td>1.00</td>
<td></td>
<td>.22</td>
<td>.21</td>
<td>.49</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td>1.00</td>
<td>.33</td>
<td>.19</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td>.30</td>
</tr>
<tr>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Note.** N=34.


In order to describe relationship between the independent variables and the dependent variable, multiple regression analysis was performed. The stepwise technique used in this study enters variables in increasing order of predictive ability. The P value was set at .05 for this procedure.

The first statistical step in the stepwise regression selected attitude as the strongest variable in predicting
utilization of needs assessment results. About 35 percent of the variance \((R^2 = .35)\) in utilization of needs assessment results was explained by the variable of attitudes of administrators toward needs assessment. The second step of the stepwise procedure selected the independent variable, involvement in the needs assessment activities, as the next variable in predicting the utilization of needs assessment results, accounting for an additional 12 percent of explained variance. Attitudes and involvement together accounted for about 47 percent of the variance \((R^2 = .47)\) in utilization of needs assessment results (See Table 38).

Table 38

**Summary of Stepwise Multiple Regression for Independent Variables**

<table>
<thead>
<tr>
<th>Step number entered</th>
<th>Variable</th>
<th>Cumulative (R^2)</th>
<th>(R)</th>
<th>Significance on step when entered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Attitudes</td>
<td>.353</td>
<td>.594</td>
<td>.0011</td>
</tr>
<tr>
<td>2</td>
<td>Involvement</td>
<td>.468</td>
<td>.684</td>
<td>.0446</td>
</tr>
<tr>
<td>3</td>
<td>Background</td>
<td>.503</td>
<td>.709</td>
<td>.1425</td>
</tr>
<tr>
<td>4</td>
<td>Needs assessment study factor</td>
<td>.507</td>
<td>.712</td>
<td>.6433</td>
</tr>
</tbody>
</table>

*Note.* \(N=34\).
Training/background in social science methods, was not statistically significant in predicting the utilization of needs assessment results. However, the addition of background increased the amount of variance explained by about 3 percent. In Step Four of the stepwise multiple regression, the needs assessment study factor contributed almost nothing to predicting utilization of needs assessment results (See Table 38).

**Summary**

Sixty-two, of sixty-four respondents, returned the questionnaire, representing a high return (97%). The high return rate resulted from interest in the survey, the telephone approach and other personalized efforts (e.g., a form of endorsement from the Dean of the College of Education at the Ohio State University) with the respondents.

The majority of respondents (79%) were over 45 years old. About 66 percent of the respondents had more than 10 years of experience as a administrator. Most of them (about 92%) had received doctoral degrees as their highest degree. Current positions ranged from dean to chairperson of the department. About half of the respondents had chairperson positions, about 20 percent dean positions, and 19 percent associate dean positions.
School size in terms of student enrollments ranged from "under 250" to "more than 1000" and tended to be either large or small. Relative to graduate enrollments, about 28 percent of the respondents reported that they had "under 250" and about 29 percent "more than 1000." Relative to undergraduate enrollments, about 39 percent of the respondents reported "more than 1000" student and 23 percent had "under 250" students.

In general, the respondents had a moderate level of training/background in social science methods. They were formally trained ($\bar{X}=3.11$) in methods (excluding needs assessment) and they felt that their informal training was slightly higher ($\bar{X}=3.26$) than formal training. Their level of confidence ($\bar{X}=3.47$) was higher than the level of their informal training.

The attitude of the respondents toward needs assessment was quite positive ($\bar{X}=3.91$), based upon their general perceptions about and experiences with needs assessment.

The data also indicated that the level of involvement in needs assessment activities was high ($\bar{X}=4.09$). In particular, the communication level with/to needs assessors and/or others and commitment levels were high, 4.25 and 4.23, respectively. On-going involvement was somewhat lower ($\bar{X}=3.68$).
Respondents had experiences with needs assessment by participating (79%), leading a needs assessment study (40%), and/or being a member of needs assessment study (50%).

About 71 percent of the total number of the respondents utilized needs assessment results. Most (98%) of the needs assessment results utilized, were commissioned by their institutions rather than by external agencies. Needs assessments were used more conceptually (\(\bar{X}=4.56\)) than instrumentally (\(\bar{X}=4.15\)).

Factors related to needs assessment study were perceived as important, ranging from a high of 3.34 to a low mean of 3.04. Among the three use components--methodological quality, report style, and timing of reports, the highest mean (\(\bar{X}=3.34\)) fell into timing of reports, while the mean (\(\bar{X}=3.04\)) for report style was lowest. Timeliness of reports was the single most important item (\(\bar{X}=3.49\)). In contrast, the use of jargon in the report was the least important item (\(\bar{X}=2.49\)).

Cronbach's Alphas for scales were computed using the SPSS computer package. There were two major foci--one for independent variables and the other for the dependent variable. The independent variables were divided into four parts--attitudes, involvement, and background, and the
needs assessment study factor. The reliability estimates for the independent variables ranged from .71 to .91.

The dependent variable for the study was utilization of needs assessment results. Cronbach's Alpha was computed on the base of the ten items developed to measure the degree of utilization. Its value was .70.

Factor analysis was performed to examine the nature of scales. The factor analysis produced three factors for attitudes, two factors for leaders' and members' involvement, two factors for needs assessment study factor, and two factors for utilization. All factors were given tentative titles reflecting meanings of items.

Correlational analysis was undertaken to determine relationships between each of the independent variables and the dependent variable—utilization of needs assessment results. The Pearson Product Moment Correlation Coefficient indicated that attitude was significantly related to the utilization of needs assessment results. Involvement in needs assessment process was also significantly related to the dependent variable. The other two variables (training/background in social science methods and needs assessment study factor) were not significantly related to the utilization of needs assessment results.
A stepwise multiple regression analysis was employed to determine the relative strengths of four independent variables with the dependent variable. Two independent variables—attitudes and involvement—were found to be significant in predicting utilization. The other two, training/background and a needs assessment study factor, were not found to be so.

The next chapter deals with conclusions and recommendations based on the results.
CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to examine the extent to which results of needs assessment were utilized and what factors were related to utilization. The factors (independent variables in this study) included attitudes of administrators toward and their involvement in needs assessment, research/evaluation background, and needs assessment study factor variable. The utilization of needs assessment results was the dependent variable.

The sample consisted of the total population (N=64) of administrators in 48 colleges and universities which are state approved for teacher education in Ohio. Data were collected by means of mailed questionnaires. The data analysis suggested that attitudes and involvement were related to utilization of needs assessment results.

This chapter is divided into two major sections. In the first, conclusions based on data analysis of this study's survey are presented. The section includes the questionnaire return rate, descriptive statistics, reliability information, factor analysis results, and
correlational analysis findings. In the second section, recommendations for the further research are proposed.

1. Questionnaire Return Rate

Sixty-two of sixty-four questionnaires mailed were returned, resulting in a 97 percent return rate from two mailings. The first mailing brought in about 88 percent of questionnaire and 9 percent came more from the second.

A high questionnaire return rate was especially important in this study, because the sample was small (N=64). The major approach used to increase the return rate was the telephone call suggested by Altschuld and Lower (1984). The telephone approach provided an opportunity for the respondents to better understand the importance of their participation, to create or increase their interest in the study, to encourage them to return the questionnaire, and to obtain their commitment to complete it. The telephone calls right after receipt of a questionnaire seemed particularly important for quick and timely responses. Thirty-four out of fifty-six respondents (from the first mailing) returned their questionnaires within seven days after the telephone contacts and from the second mailing, four of six respondents returned the questionnaire within seven days after the follow-up telephone-calls.
The high return rate may also be explained by the co-signature and the endorsement. The cover letter was signed by the investigator's major advisor, Dr James Altschuld. Dr. Donald Anderson, Dean of Education of The Ohio State University added a personal, handwritten note as a form of endorsement on the cover letter. He personally knew most of the respondents, who were his professional peers (the respondents at least knew his name). Therefore, it was assumed that the respondents would be responsive to a request from him.

Another approach to increase the return rate was to hand sign all cover letters. Also the names of the respondents and the deadline for the return day and date on the cover letter were handwritten. A variety of stamps (unique and colorful) was used to highlight the questionnaire and return envelopes. Different stamps were used for the two envelopes. These efforts might be a possible factor influencing the high return rate.

Another possible factor for the high return rate may be that the respondents found the topic of value and interest, and wanted the results of the study available to them. An indication for their interest in this study was that fifty-three of the sixty-two respondents requested a summary of the study results. One respondent even sent a
return, self-addressed, stamped envelop to get a summary of
the results.

2. **Descriptive Analysis**

**Demographic Data:** Positions of the respondents were deans, associate and assistant deans, and department chairpersons. Most of the respondents (about 92%) had Ph.D/Ed.D degrees. This was to be expected of individuals in their positions. They had fairly long tenure as administrators. About 66 percent of the respondents had more than 10 years of experience. The single largest group (44%) was in "16 and over" response category. More than 80 percent of the respondents were over 45 years old and no one was under 35 years old of age. This age pattern reflected the status and level of the respondents.

The data did confirm expectations that the respondents as top-level administrators had somewhat comparable backgrounds with regard to education and experience. Also another likely conclusion is that as a result of their tenure they had been exposed to or involved in a needs assessment activity.
Factors Related to Decision-makers:

a) Background of Decision-Makers in Social Science Methods

In general, administrators in this study had at least a moderate level of background—formal training ($\bar{X}=3.11$), informal training ($\bar{X}=3.26$), and confidence ($\bar{X}=3.47$)—in social science methods.

The moderate level of their formal training can be explained by their highest degree, commonly the doctoral degree which 92 percent of them had received. In their doctoral programs, they undoubtedly took research methodology courses and had extensive research experience gained when they were writing their dissertations. While the level of their formal training suggests that they had some degree of knowledge about social science methods, their age range suggests a caution: their training may be somewhat dated and in need of some updating.

It was also found that the respondents had more formal training in a quantitative area such as statistics ($\bar{X}=3.35$), quantitative research methods/techniques ($\bar{X}=3.33$), and tests and measurement ($\bar{X}=3.40$) than in evaluation ($\bar{X}=3.03$) and needs assessment ($\bar{X}=2.33$). Needs assessment training, in particular, was most limited among the seven content areas surveyed (needs assessment, program evaluation, quantitative research methods/techniques, statistics, qualitative research methods/techniques, tests
and measurement, and program management). One of the reasons for their higher level of formal training in a quantitative area may be related to common curricular offerings during their graduate education. Training in quantitative areas tended to be more emphasized then whereas evaluation and qualitative curricular have become more available in recent years. Needs assessment is a new field. Given their age and background, it is likely that a needs assessment course or courses related to the subject were not available at the time of their graduate training.

When informal training is examined, respondents expressed greater confidence in management areas such as needs assessment, program evaluation/management than in the quantitative areas. These findings can be explained by the role of the respondents. As top level administrators, the major role and responsibility are to operate and manage organizations. In most cases, conducting research is not their direct responsibility. Thus their role and its attendant responsibilities may result in a higher level of informal training, and greater confidence in the areas of program evaluation/management and needs assessment. In sum, these areas seem to be more related to their current work requirements.
b) **Attitudes**: On the seventeen item attitude scale, the attitude of the respondents toward needs assessment was quite positive ($\bar{X}=3.91$, $SD=.48$ on a five-point scale), based on their general perceptions about and experiences with needs assessment. Several explanations may be account for this positive attitude. First, the administrators in this study had at least an overall moderate level of research/evaluation training. Their level of formal training was moderate ($\bar{X}=3.11$) except in needs assessment ($\bar{X}=2.33$). Their levels of informal training ($\bar{X}=3.26$) and confidence ($\bar{X}=3.47$) were higher than the level of formal training. As McCloskey, Altschuld, and Lawton (1985) pointed out, administrators who have backgrounds in social science research methods know the value of research concepts (e.g., validity, reliability) and the advantages of research. Such knowledge and understanding may contribute to their positive attitude toward needs assessment. Importantly, the respondents had a moderate level of confidence in needs assessment ($\bar{X}=3.37$), even though they did not have much formal training in the topic. This confidence may have contributed to their positive attitudes toward needs assessment. In addition, there may be effects of the college environment which is more research oriented than many other institutional settings. A consequence may be a positive attitude about
the kinds of systematic research and evaluation information which is assembled in a needs assessment.

Administrators might feel less threatened by the process of needs assessment and its results than by evaluation, because needs assessment is usually a starting point in planning, while evaluation is often an end point which can be thought of as a judgment about what was done. Thus, they might not perceive needs assessment as a criticism of their work or as pointing out failures. Rather they might view it as a necessary step in program development. Such perceptions may influence positive attitudes toward needs assessment.

Lastly, it is important to avoid overgeneralizations about attitudes. Dickey (1981) indicated that decision-makers' attitudes toward a specific evaluation approach may be different from their attitudes about evaluation in general. The attitudes of the administrators in this study were based on their general perceptions about needs assessment. Even though their general attitudes are positive, if they were asked about a specific needs assessment (e.g., a needs assessment study in their own college), their attitudes might have been different.
c) **Involvement:** The level of the respondents' involvement as a whole group (the leader and member groups) was in the "extensively" response category (X=4.09 on a five-point scale). The respondents seemed highly involved in needs assessment processes.

Some indications of what may contribute to the high level of their involvement follows. First, the respondents in this study had positive attitudes. Since they view needs assessment positively, the respondents may be inclined to be involved in needs assessment. It can also be explained by their research background. The respondents had a moderate amount of knowledge about social science research methods, and were moderately confident in needs assessment. Therefore, they may feel interested in and comfortable about being involved in needs assessment.

Their experience on the job may provide numerous chances to be involved in needs assessments, to gain experience in the process, to see positive outcomes of needs assessments, and thus enhance interest in being actively involved in needs assessment.

Needs assessment is a planning activity. Planning is one of their major responsibilities. There might also be pressure to conduct needs assessment. Demands for increasing accountability—an ability to demonstrate that learning outcomes justify the public's substantial
investment in higher education—may increase administrative interest in and support for needs assessment. The importance of needs assessment vis-a-vis the widespread accountability movement may account for the considerable interest and involvement in needs assessments.

Needs Assessment Study Factor: The respondents were asked to indicate how important the needs assessment study factor (methodological quality, report style, and timing of reports) was to utilization. Overall, they perceived the factor as important ($\bar{X}=3.20$ on a four point scale). They considered the timing of reports ($\bar{X}=3.36$) as slightly more important than the quality of methodology ($\bar{X}=3.30$). The report style ($\bar{X}=3.05$) was perceived as less important. The use of jargon, in particular, was perceived as the least important consideration ($\bar{X}=2.48$).

The following explanations may account for these results. The respondents as top level administrators may tend to work under exceptional time constraints. No matter how valid the information from a needs assessment study, if it is late, they may not be able to use it. Therefore, timing of reports--their availability when administrative decisions must be made--was considered as most important among the three sub-factors.
While timing is perceived as critical by administrators, they also thought that methodological quality is important ($\bar{x}=3.32$). At this point it should be recalled that the respondents had at least a moderate level of research/evaluation background. They know how important the quality of a research study (e.g., sampling procedures, data collection procedures) is and they are capable of making reasonable judgements about methodological quality. Further, working in a collegiate setting supportive of research may be a key factor in the respondents' response that the quality of methodology is an important consideration. Research is a major emphasis in many colleges and universities, along with teaching and service. Such stress coupled with the characteristics of the setting may contribute to interest in and commitment to the quality of the needs assessment study.

**Utilization**: A major foci of this study was to investigate the extent to which needs assessment results were utilized. Forty-four (about 71%) of the sixty-two respondents utilized them. Data was analyzed based the forty-four respondents. In other words, non-utilization as self reported, led to exclusion of 18 respondents in the analysis.
The level of utilization was somewhat high (\(\bar{X}=4.42\), on a six-point scale). These findings are not consistent with studies where utilization was defined as instrumental, direct, and immediate impact on decision-making, but are consistent with the Robins study (1982) where utilization was defined to include both instrumental and conceptual uses. The use of a broad definition of utilization may explain the somewhat high level of utilization in this study.

Another interest of this study was in the way needs assessment results were used (instrumentally or conceptually). The needs assessment results were utilized more conceptually (\(\bar{X}=4.56\)) than instrumentally (\(\bar{X}=4.15\)). This finding confirms what was generally reported in the literature; that conceptual use is more common than instrumental use.

3. Reliability

There were four independent variables—background of administrators in social science methods, their attitude, involvement, and the needs assessment study factor—and a dependent variable—utilization of needs assessment results.

Five scales to measure these variables were developed. Reliability coefficients (Cronbach's alpha) were calculated
to provide an estimate of the internal consistency of each scale.

**Background:** There were three sub-parts (formal training, informal training, and confidence) to the background scale. The reliability coefficient for each seven item sub-part ranged from .71 to .81.

More items would tend to produce higher reliability coefficients than fewer items. Even though the obtained coefficients are moderately high in terms of the internal consistency of each scale, they would probably be even higher if the scales were longer. Despite the lack of scale length, the scales are highly reliable and the results are quite consistent.

**Attitude:** The degree of administrators' attitude toward needs assessment was measured by use of a seventeen item attitude scale. Compared to the background scale, there were more items in the attitude scale, but the number of items was still relatively small. The reliability coefficient for the seventeen item attitude scale was .91. The coefficient indicated that the attitude scale was highly internally consistent for measuring the variable and results should be viewed as being stable.
Involvement: The involvement scale was divided into two categories—as a leader and as a member of a needs assessment study. Twelve items were developed to assess the level of the involvement of administrators in needs assessment. The reliability coefficient for the leader involvement scale was .88, and .86 for the members involvement scale. These coefficients indicated high internal consistency of the scale for measuring administrators' involvement in needs assessment, especially considering the number of items comprising the scale. It should even be possible to obtain a higher reliability if there had been more items.

Needs Assessment Study Factor: The nine items measuring the needs assessment study factor covered three variables (methodological quality, report style, and timing of reports). The reliability coefficient for the nine items was .84. Given the small number of items, the coefficient was, as in the above cases, high in terms of internal consistency. Conclusions here are also similar to those drawn above.

Utilization: Ten items were developed to measure the degree of utilization including both instrumental and conceptual uses. The number of respondents was forty-four.
The reliability coefficient for the ten item scale of .70 was somewhat lower than the other scales. Nevertheless, with the small number of items, the obtained coefficient is reasonably high, indicating internal consistency. It can be concluded that the quality of the scale is sufficiently good for use in this exploratory study.

4. **Factor Analysis**

**Attitude**: Seventeen items were used to measure the general concept of attitudes of administrators toward needs assessment. Factor analysis was performed to examine the nature of the scale and to determine if there were underlying dimensions.

Factor analysis revealed that the attitude scale contained three dimensions which were titled "value of needs assessment," "problems and limitations of needs assessment," and "specific planning uses."

The three dimensions seemed to be quite reasonable in terms of measuring attitude. As mentioned in the Chapter IV, about 60 percent of the variability in attitude scores was explained by the three dimensions. It can be concluded that the attitude scale turned out to be more complicated than originally thought in that three factors rather than a broad common element seemed to characterize the scale.
Involvement: Based on the twelve item involvement scale, factor analysis was performed to examine whether the level of involvement could be explained by the three *a priori* dimensions (on-going, communication, and commitment). Factor analysis resulted in two dimensions for the leader group. Out of the three original dimensions, two were combined into one factor, which was retitled "communication and commitment." The other original dimension (on-going involvement) was retained as a factor. The reason why communication and commitment were combined in a factor may be that with a high extent of personal communication with/to needs assessors and other members, commitment of needs assessments can be enhanced. It can be concluded that two underlying factors produced what seems to be a simpler expression of the involvement measurement than the original three dimensions.

For the member group, two factors resulted, one was loaded by three items (two items designed to measure the degree of on-going involvement, one related to communication). The second factor was loaded by four items designed to measure commitment, two for on-going involvement, and two for communication. In general, the results for the factor analysis for the member group suggested that items in the original scale grouped moderately well in the factor analyzed scale. It can be
tentatively concluded (especially in light of the small sample size) that the construct of member involvement can be best represented by two dimensions rather than three.

**Needs Assessment Study Factor:** The nine items for the needs assessment study factor were factored into two dimensions. The first factor was loaded by the combination of four items (two items for methodological quality and two for report style). The second factor was loaded by the combination of five items (two items for timing of reports, two for report style, and one for methodological quality). Although the dimensions that resulted from the factor analysis did not uphold the originally postulated ones, there were similarities and a somewhat logical clustering occurred. Measurement of the needs assessment study factor therefore seemed to be reasonable.

**Utilization:** Factor analysis for the utilization scale yielded two factors as expected. All items designed to measure conceptual utilization were loaded on the first factor. In addition, two more items initially designed to measure instrumental utilization loaded on the same factor. The other factor contained two items designed to measure instrumental utilization. Although the factors that resulted did not totally agree with the original
conceptualization, it can be safely stated that there were
two dimensions and there was a moderate degree of fit with
the original dimensions.

5. Correlational Analysis

The major purpose of the study was to investigate the
relationships between each of the independent variables and
a dependent variable—utilization of needs assessment
study. The independent variables were attitudes of
administrators toward needs assessment, their involvement
in needs assessment, their background in social science
methods, and the needs assessment study factor.

Relationships between each independent variable and
utilization of needs assessment results are discussed on
the basis of Pearson Product Moment Correlation
Coefficients, followed by a discussion of the results from
a stepwise multiple regression analysis

Relationship Between Attitude and Utilization: The Pearson
Product Moment Correlation Coefficient (r=.59) indicated
that attitudes of administrators toward needs assessment
were positively and fairly strongly related to the
utilization of needs assessment results. This finding is
consistent with Dickey's study (1982) about evaluation
utilization. She concluded that attitudes of decision-
makers was the most significant factor related to utilization of evaluation.

With positive perceptions and attitudes about needs assessment, administrators may be more likely to use needs assessment because they may have positive expectations about its results. Therefore, when information is available and desirable, they may be committed to its use at the time of decision-making (e.g., instrumentally). When it is available, but not suitable (e.g., limited budgets) at the time of decision-making, administrators may delay (rather than not utilize) or utilize data later in a conceptual sense. For example, administrators may store ideas consciously and/or subconsciously and use them when they are suitable and helpful.

Relationship Between Involvement and Utilization:
Administrators' involvement in needs assessment (r=.49) was also significantly related to utilization. This finding is suggestive that more collaborative involvement may lead to more utilization. As discussed in Chapter II, a collaborative approach was viewed as a way to increase utilization, because it requires more comprehensive involvement from the beginning to the end of a needs assessment process.
In inspecting the mean scores for the dimensions of involvement, it was found that administrators were collaboratively involved in needs assessment. As mentioned earlier, overall, the means for the leader group were higher for all three dimensions—on-going involvement, communication, and commitment—than for the member group. "Leader" used in this study referred to role of chairperson of needs assessment study. This term differentiated between serving as member of an needs assessment study team and being in charge of it (decision-makers). It should be further emphasized that in this discussion the concept of "leader" does not imply measuring or studying the concept of "leadership." Leader could represent an administrator, a decision-maker, a "leader" or some combination of all of these roles.

The level of the respondents' involvement as a whole group was moderately high with a mean value of 4.09 on a five-point scale. Such a comprehensive (collaborative) involvement—extensive, total involvement, from beginning to end—seems to have the potential for increasing utilization. The reason may be two-fold: (a) The more extensive the involvement, the clearer the understanding of the needs assessments' goals, process, and outcomes, and the more concerns of administrators are articulated, (b) the more extensive the involvement, the greater sense of
"ownership," e.g., "This study is part of me; it's a good study; I will use it to demonstrate my faith in it."

**Relationship Between Background and Utilization:** The correlation between background and utilization was .19, indicating that there was not much of a relationship between the two variables. Although administrators' background in social science methods may be necessary to understand and interpret data from a needs assessment study, it may be not sufficient to promote utilization. There may be other considerations beyond the data when administrators make decisions. For example, no matter how good the information from a needs assessment study is and no matter how well administrators understand needs assessment data, the administrators may not use it—at least instrumentally, if other considerations (e.g., budget, feasibility, staff considerations) impinge on the situation.

**Relationship Between the Needs Assessment Study Factor and Utilization:** Needs assessment study factor (r=.30) was not significantly correlated with utilization of needs assessment results at the .05 level. The nature of the commissioning process may affect the correlation between the needs assessment study factor and utilization. Most
respondents (98%) reported that studies usually are commissioned by their institutions. That fact may have bearing on the insignificance of needs assessment study factor. Studies commissioned by an institution for its own use, conducted locally, and used locally may not need to be as sophisticated as one that may be judged by an outside agency. In the latter situation, the institution is visible to others. Its reputation may be affected as the quality, style, and timing are viewed as representative of the institution. When an outside sponsoring agent is involved, for example, a state office which allocates funds, the study factors may be important with regard to utilization. The institution would want a needs assessment characterized by quality, style, and timeliness. In contrast, the college-commissioned needs assessment is less visible and therefore the pressure relative to the needs assessment study factor is somewhat lower. Another explanation is that the needs assessment study factor simply does not have as strong a relationship to the dependent variable as do attitudes and involvement.

The value, .30, is not strong enough to be statistically significant at the .05 level. It would have been desirable to have examined this relationship with a larger sample size to see how stable it was and if it may be even stronger than observed in this instance.
Multiple Regression Analysis: A stepwise multiple regression analysis was employed to determine the relative strengths of the four independent variables in predicting the dependent variable—utilization of needs assessment results.

As anticipated, attitude was found to be the best single variable in predicting utilization of needs assessment results among the four variables (because attitude had the highest zero order correlation with utilization, .59). About 35 percent of the variance ($R^2=.35$) in the utilization of needs assessment results was explained by the variable of attitudes of the administrators toward needs assessment.

The second variable chosen was the one with the highest partial correlation with utilization after accounting for the effect of attitude. That variable was involvement of the administrators in needs assessment. It accounted for an additional 12 percent of the explained variance. The two variables—attitude and involvement—together accounted for about 47 percent of the variance ($R^2=.47$) in utilization of needs assessment results. These findings suggested that the two variables together make a sizeable contribution to utilization of needs assessment results.
The other two variables which entered in the third and forth steps were not found to be statistically significant in predicting utilization of needs assessment results. In other words, background of administrators in social science methods and the needs assessment study factor had hardly any value in predicting utilization of needs assessment results in this four variable situation.

Based on the results, it can concluded that attitude and involvement are the best two predictors of utilization of needs assessment results when this stepwise multiple regression was conducted.

Multiple correlation is directly related to sample size. A large number of respondents can provide stable results from multiple regression. According Kerlinger and Pedhazur (1973), 100 or more subjects are required, when there are several independent variables and a ratio of at least twenty subjects per predictor variable is desirable. Unfortunately, only thirty-four respondents were available for the correlational analysis due to the nature of the questionnaire results. One should therefore use caution in interpreting these findings. The results from multiple regression analysis in this study suggest that attitude and involvement have predictive ability of utilization of needs assessment results, while the other two do not.
Summary with regard to Conclusions

The two-communities perspectives hold that communities are different in relation to value, language, ability to collaborate in research study endeavors, and utilization of reports, e.g., a needs assessment report. Top-level administrators in colleges and universities in this study constituted a unique "community" vis-a-vis social scientist as needs assessor.

The data analyses suggested that the administrators were well educated, highly experienced in their work, and at least moderately prepared in social science research methodology. They were positive about needs assessment, involved in a full range of needs assessment activities, and inclined to use needs assessment results conceptually as well as instrumentally. The administrators seemed to be moderately well prepared to function in two-communities—that of the administrator and that of the social scientist in the role of needs-assessor.

Interestingly, background and the needs assessment study factor had very minimal predictive power. On the other hand, attitude and involvement were significantly related to utilization of needs assessment results. It appears that it is sensible to encourage more positive attitudes and active involvement of administrators to increase utilization.
Recommendations

Several recommendations are made on the basis of results of the study.

1. This study found that conceptual utilization was more common than instrumental utilization. A broad definition of utilization seems to more adequately reflect ways in which administrators used needs assessment results. Use of the broad definition including conceptual and instrumental use is suggested.

2. The level of administrators' attitude toward needs assessment was quite positive (\(\bar{X}=3.91\) on the five-point scale). Considering the greater contribution of attitudes to utilization of needs assessment results, it seems reasonable to promote a more positive attitude by providing formal training in needs assessment. Such training could alleviate a current deficiency in administrators' preparation. The training could presumably strengthen administrators' proficiency in collaborating with needs assessors, and it could presumably further strengthen attitudes toward assessments. Further research is recommended to determine the precise nature of formal and informal kinds of training which builds both proficiency in and attitudes toward needs assessment.
3. Factor analysis revealed three distinct dimensions on attitudes toward needs assessment. In-depth research should be undertaken to determine more clearly the precise nature of attitudes, for example, relative to the "value of needs assessments," to "problems and limitations of needs assessments," and to "specific use of needs assessment." Such research should also be undertaken to determine the relative strengths of each of the dimensions of attitudes to utilization.

4. Involvement was found to be a major factor in increasing needs assessment use. It was further noted that extensive involvement in the total cycle of needs assessment activities would be likely to promote use, for it was thought to create understanding of the assessment, to build a sense of ownership, and a desire to use it. Administrators should be encouraged to be collaboratively involved in the full range of needs assessment activities. Further research is suggested to determine what facilitates and constrains involvement in the needs assessment process.

5. Administrators in this study reported that the use of jargon in reports was the least important among the variables in the needs assessment study factor. Reports of needs assessment should be written in a manner which is easily readable for administrators with a
moderate level of training in research/evaluation. Needs assessment reports should be carefully reviewed with this thought in mind before they are presented to decision-making groups.

6. This study was exploratory in nature. The results of this research introduced a framework to study variables related to utilization of needs assessment results in a college setting. To improve the measurement of the variables, more items and a longer scales should be developed.

7. Additional research designs should be used to supplement the survey and data analysis used in this study. To move beyond the exploratory nature of this study, researchers could use more in-depth technique (e.g., interview, document review) to permit probing into the nature of needs assessment utilization.

8. This study has been completed with a limited type of sample—high level administrators in colleges, schools and departments of education. Further study of collegiate administrators' use of needs assessment results (and variables that contribute to utilization) with larger and broader samples is recommended. For example, a study could be conducted in several kinds of departments and schools, such as social work, law, and agriculture. Such research could determine the
generalizability of these findings to other areas within colleges and universities.
February 28, 1990

Dear

National attention paid to improving the preparation of teachers, along with greater understanding of the teacher preparation process, has led many collegiate institutions to examine and redesign their preservice programs. Studies (national, state and local) that provide information about current and future needs may be important for such new efforts.

We are contacting administrators in colleges and departments of education throughout Ohio to determine their views of needs assessment in relation to planning programs. Currently very little is known about needs assessment and how it is perceived by administrators such as yourself. The success of this study depends upon your help. Your responses to the enclosed questionnaire will be very helpful in guiding future needs assessment activities.

We would appreciate your taking about 15-20 minutes to complete the enclosed questionnaire. Please return it in the envelope provided for that purpose by February 29, 1990. All responses will be kept strictly confidential and no individuals or institutions will be identified with their responses. Only group data will be presented in reports and publications.

Shortly, we will be calling to answer any questions or concerns that you may have. We hope that this study will be of interest to you and will gladly send you a summary of results.

Thank you for your cooperation.

Sincerely,

James W. Altschul
Associate Professor, Coordinator, Research & Evaluation Program

Jung Sook Yoon, Research Associate
March 21, 1990

Dear

Recently we sent you a questionnaire regarding your views about needs assessment and the utilization of needs assessment results. You are part of a small, select group of administrators in Ohio's colleges, schools and divisions of education who were chosen for participation. You and other administrators like you are in a unique position to help us understand the nature of the needs assessment process. To date slightly more than 80 % of the entire group has responded.

If you have already mailed the questionnaire we thank you for your valued contribution to this study. If you have not, we hope that you will able to take 15-20 minutes (from what we know is a busy schedule) to complete and return it. Please note that even though our initial return was high, you are a member of a very small sample and every return is of critical importance.

We have enclosed a questionnaire and a stamped return envelope for your use. Also please feel free to call us if you have any questions about the study.

We deeply appreciate your assistance.

Sincerely,

James W. Altschuld
Associate Professor, Coordinator, 
Research & Evaluation Program

Jung Sook Yoon
Research assistant
ADMINISTRATOR QUESTIONNAIRE

PART I: ATTITUDES AND PERCEPTIONS

The following statements represent attitudes toward needs assessment. Please respond based upon your overall past experience with needs assessment or your perceptions of the term. In general, needs assessment might be defined as the process of determining the difference between the current status of some entity and the desired status for it. There are no right or wrong responses, rather we are interested in your feelings about needs assessment.

Please circle one choice for each statement using the following scale.

SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, and SD = Strongly Disagree

Needs assessment...

1. is essential for identifying problems in current programs.  
2. is essential for identifying problems that will occur in the future.  
3. tells us what we already know rather than providing new insights and ideas.  
4. focuses too much on problems rather than program strengths.  
5. helps to establish critical program priorities.  
6. helps to direct resources to the critically important problems.  
7. provides important information for planning.  
8. is helpful in making decisions.  
9. uses too much information that is external to our institution and not pertinent to local concerns.  
10. doesn't result in new ideas.  
11. doesn't lead to meaningful change and improvement.  
12. is an activity in which all administrators should be involved.  
13. provides a mechanism for staff to really look at problems.  
14. is too demanding of staff time.  
15. is a lot more scientific than required for studying social/educational problems.  
16. is worth the time spent.  
17. is worth the money spent.
PART II: INVOLVEMENT IN NEEDS ASSESSMENT

1. In the past 5 years have you
(a) participated (provided data, answered surveys) in a needs assessment,
(b) led a needs assessment study, or
(c) been a member of (but did not lead) a study team?

(Please respond to all questions).

(a) Participated in
(provided data).

(b) Led a needs assessment study.

(c) Member of study.

___Yes, ___Time(s) 
(Supply No) 

___Yes, ___Time(s) 
(Supply No) 

___Yes, ___Time(s) 
(Supply No) 

___No ___No ___No 

If you answered YES only to (a), please go to PART III, page 3.
If you answered YES to (b) and/or (c), please continue with Question 2 below.
If you answered NO to (a), (b), and (c), please GO TO PART IV, page 4.

2. The following statements represent activities that might have occurred when you were involved in a needs assessment (as a leader and/or as a member of a needs assessment team).

Please respond to both categories, if you have led a study team and also been a member of a team. If not, please respond to only the appropriate category.

Circle one number that best describes the extent to which you were involved in these situations as a leader and/or as a member.

<table>
<thead>
<tr>
<th>Category</th>
<th>Leader</th>
<th>Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Very Extensively</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Extensively</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Often</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Seldom</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Never</td>
<td>1</td>
</tr>
</tbody>
</table>

As a leader
Discussion of general needs assessment goals.
Selection of the strategy for the needs assessment design.
Collection of the needs assessment data.
Preparation of the needs assessment report.

As a member
5 4 3 2 1
5 4 3 2 1
5 4 3 2 1
5 4 3 2 1
5 4 3 2 1
3. Based on your experience in the needs assessment process, indicate the extent to which you agree or disagree with the following statements. For each item circle one of the five choices.

Please respond to both categories, if you have been a study team leader and also been a member of a team. If not, please respond to only the appropriate category.

SA=Strongly Agree, A=Agree, U=Undecided, D=Disagree, and SD=Strongly Disagree

<table>
<thead>
<tr>
<th>As a leader</th>
<th>As a member</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA A U D SD</td>
<td>There were frequent discussions throughout the needs assessment.</td>
</tr>
<tr>
<td>SA A U D SD</td>
<td>Opportunities to express my concerns/ viewpoints were available when needed.</td>
</tr>
<tr>
<td>SA A U D SD</td>
<td>My concerns/ideas were addressed in the needs assessment process.</td>
</tr>
<tr>
<td>SA A U D SD</td>
<td>I understood the concerns of others involved in the needs assessment process.</td>
</tr>
<tr>
<td>SA A U D SD</td>
<td>I was committed to ensuring the completion of the needs assessment study.</td>
</tr>
<tr>
<td>SA A U D SD</td>
<td>I made a special effort to produce a high quality needs assessment.</td>
</tr>
<tr>
<td>SA A U D SD</td>
<td>I was committed to active personal involvement throughout the needs assessment process.</td>
</tr>
<tr>
<td>SA A U D SD</td>
<td>I was committed to utilizing the needs assessment results.</td>
</tr>
</tbody>
</table>

PART III: UTILIZATION OF NEEDS ASSESSMENT

1. In the past 5 years, have you utilized the results of a needs assessment?

______ No (Continue with PART IV, page 4).

_____ Yes, the needs assessment was commissioned by
(check below those that apply and continue with the next page)

_____ My institution. _____ An external agency
2. Based upon your experience, please describe the extent to which the needs assessment results were used or influential in the following areas. For each item circle one of the six choices.

<table>
<thead>
<tr>
<th>Item</th>
<th>VH=Very High, H=High, M=Modest, L=Little, N=None, or DK=Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. were used to develop new program/policies.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>b. were used to modify existing programs/policies.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>c. were used to allocate revenue and resources.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>d. were used to commission a second report or study.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>e. confirmed what the institution already knew.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>f. challenged thinking about current programs/policies.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>g. changed the way in which the institution viewed current programs/policies.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>h. stimulated new discussions within the institution or department.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>i. raised new questions related to planning processes.</td>
<td>VH H M L N DK</td>
</tr>
<tr>
<td>j. caused others in the department to rethink program development.</td>
<td>VH H M L N DK</td>
</tr>
</tbody>
</table>

PART IV: UTILIZATION FACTORS

If you have utilized the results of a needs assessment, to what extent were the following factors important to your use of the results? If you have not been involved in a needs assessment or utilized results, to what extent might these factors be important to your future use?

Circle one number for each item below.

<table>
<thead>
<tr>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important to use</td>
<td>Important</td>
<td>Somewhat Important</td>
<td>Not Important to use</td>
</tr>
</tbody>
</table>

1. Overall methodological quality of the study. 4 3 2 1
2. Adequacy of the sampling procedure. 4 3 2 1
3. Appropriateness of the instrument for data collection. 4 3 2 1
4. Use of jargon, technical language/terms in the report. 4 3 2 1
5. Your understanding of the technical language/terms. 4 3 2 1

(Continued on Next Page...
6. Statistical information. 4 3 2 1
7. Qualitative information. 4 3 2 1
8. Timing of completion of the needs assessment study. 4 3 2 1
9. Timeliness of the report. 4 3 2 1

PART V: GENERAL INFORMATION

For items 1-4, please circle the letter beside the appropriate response.

1. Your age:
   (a) 25 and below
   (b) 26-29
   (c) 30-34
   (d) 35-39
   (e) 40-44
   (f) 45-49
   (g) 50-54
   (h) 55 and over

2. Your total years of experience as an administrator:
   (a) Less than 1 year
   (b) 1-3
   (c) 4-6
   (d) 7-9
   (e) 10-12
   (f) 13-15
   (g) 16 and over

3. The highest degree you have obtained:
   (a) B.A./B.S.
   (b) M.A./M.S.
   (c) Ph.D./Ed.D.
   (d) Ed Specialist.
   (e) Other (specify)

4. Enrollment of College Education Unit:
   A. Graduate Level Enrollment (total number of full-time and part-time students)
      (a) Under 250
      (b) 251-500
      (c) 501-750.
      (d) 751-1000
      (e) More than 1000

   B. Undergraduate Level Enrollment (total number of full-time and part-time students)
      (a) Under 250
      (b) 251-500
      (c) 501-750.
      (d) 751-1000
      (e) More than 1000

5. Your Current Position Title(s):
6. Describe the extent of your background/training in the content areas listed below. This background may have been obtained through formal courses in college or graduate school, and/or informal means such as seminars, workshops or personal reading. Also how confident do you feel in your understanding of these areas?

For each area circle one response for the formal, informal and confidence categories.

<table>
<thead>
<tr>
<th>Area</th>
<th>Formal Training</th>
<th>Informal Training</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Needs assessment</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>b. Program Evaluation</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>c. Quantitative Research</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>Methods/Techniques</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>d. Statistics</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>e. Tests and Measurement</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>f. Qualitative Research</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>Methods/Techniques</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
<tr>
<td>g. Program Management</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
<td>VH   H   M   L   N</td>
</tr>
</tbody>
</table>

7. Would you like to receive a summary of the results of this study?

Yes__________ No___________

Thank you

Please return this questionnaire in the stamped addressed envelope provided for that purpose.
Appendix D

BRIEF DESCRIPTIONS ABOUT PHONE-CALLING

I. I'm calling in regard to a letter and survey mailed from The Ohio State University.

II. Have you received our questionnaire?

If they have received:
1. Few minutes to talk about the questionnaire.
2. Short amount of time to complete the questionnaire (emphasize).
3. All colleges and universities in Ohio are involved in this research study.
4. Confidentiality is guaranteed—Only group results reported.
5. Use of code number Only for follow-up purpose.
6. Unique position, as an administrator, to provide information—only administrators could provide this type of information.
7. Willing to send summary of results when completed—last item on the questionnaire.
8. Any questions about the study—For possible answers, GO TO BOTTOM of this sheet.
9. Thank you for your help. We deeply appreciate your finding the time to do it.

If they haven't:
1. We have sent a questionnaire about needs assessment study coming on in colleges and universities.
2. We'll send another copy to you—note they may have it on their desk.
3. Mention about 1 through 8 above.

III. If reluctant to respond:
1. Understand busy schedule—Be empathetic.
2. Emphasize short amount of time to complete.
3. Emphasize that only administrators can provide perspective needed for the study.
4. Ask if there is some way that they can squeeze out 15 minutes to do it.

IV. Possible answers about questions:

About attitudes:
1. Current limited understanding of how administrators view it.

About utilization:
1. Lot of different possible uses or non-use—Trying to understand what happens with the results of needs assessment.

About branching: (page 2—between question 1 and question 2)
1. If their participation in needs assessment is limited to experiences such as answering surveys and provided some data, lead them to page 3, PART III: Utilization of Needs Assessment and ask them to continue with question 1. (question 1, p.3 through p.5).
2. If they led a needs assessment and/or have been a member of a needs assessment study, ask them to continue with question 2, in the same page—p.2, question 2 through p.6.
3. If they have led and been members of a NA study, ask them to respond to the two categories (AS A LEADER and AS A MEMBER), question 2, p.2 and question 3, p.3.

3. If they haven't involved in any ways (not providing data, not leading a NA, and not being a member in the past 5 years), ask them to continue with PART IV: Utilization Factors, page 4—in the middle of the page)—p. 4 through p. 6.

How important the utilization factors on the basis of their experiences or general perceptions.
BIBLIOGRAPHY


