

1-1-1973

Identification of client demand for public services : development of a methodology.

Richard Tristam Coffing
University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/dissertations_1

Recommended Citation

Coffing, Richard Tristam, "Identification of client demand for public services : development of a methodology." (1973). *Doctoral Dissertations 1896 - February 2014*. 2827.
https://scholarworks.umass.edu/dissertations_1/2827

This Open Access Dissertation is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Doctoral Dissertations 1896 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

*

UMASS/AMHERST

*



312066 0296 5830 8

**FIVE COLLEGE
DEPOSITORY**

© Richard Tristram Coffing 1973
All Rights Reserved

IDENTIFICATION OF CLIENT DEMAND
FOR PUBLIC SERVICES: DEVELOPMENT
OF A METHODOLOGY

A Dissertation Presented

By

RICHARD TRISTRAM COFFING

Submitted to the Graduate School of the
University of Massachusetts in partial
fulfillment of the requirements for the
degree of

DOCTOR OF EDUCATION

April 1973

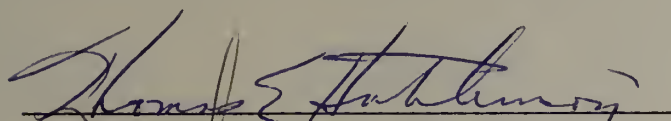
IDENTIFICATION OF CLIENT DEMAND
FOR PUBLIC SERVICES: DEVELOPMENT
OF A METHODOLOGY

A Dissertation

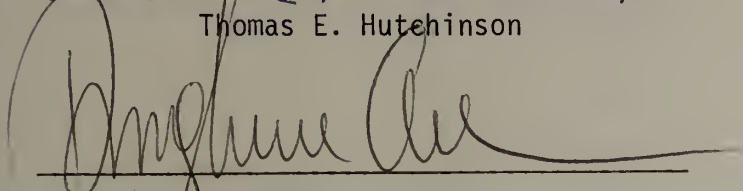
By

RICHARD TRISTRAM COFFING

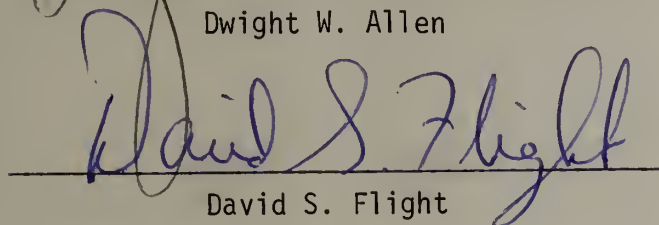
Approved as to style and content by:



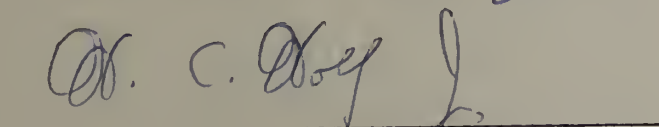
Thomas E. Hutchinson



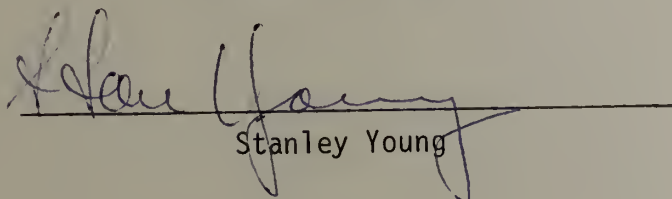
Dwight W. Allen



David S. Flight



William C. Wolf, Jr.



Stanley Young

April 1973

ACKNOWLEDGEMENTS

This study began in my mind when the second of two events occurred. The first was an intriguing presentation by Professor Stanley Young of his functional analysis of social organizations, in which one function was called "client and environmental demand analysis." How to go from the conceptual level to the operational level appeared to me to be a serious problem, one which I was not able to overcome as I attempted to employ the functional analysis in a series of monthly seminars I taught at the Bureau of Industrial Relations, University of Michigan, during 1970-71.

The second event was Professor Thomas E. Hutchinson's brief reconstruction of a set of logic with which he had been developing some evaluation methodology. That set of logic, which he called "metamethodology," seemed to me to provide the key to taking Young's functional analysis to the operational level.

I believe the existence of this dissertation confirms that judgment. To both Young and Hutchinson I am deeply grateful for their continuing guidance and knowledge that have made this study not only possible, but also exciting.

In my chairman and principal mentor, Professor Hutchinson, I have continually observed an enormous capacity for providing for the welfare of other persons, from their perspective. I am fortunate to have been a doctoral student under such beneficent circumstances.

Professor David S. Flight, Director of the Center for Leadership and Administration, provided me with unusual opportunities to practice

and revise what I was learning, for which I am also very grateful. Many persons named in the study contributed to the tests of logic and field tests. I would like to especially thank "Arnold" and "Mike," the advisor and advisee with whom Client Demand methodology was first applied.

My wife, Marjory Lager Coffing, has made many significant contributions to this work--in part because our professional interests are not parallel and her perspective differs from mine. To Maureen S. Eachus I am indebted for her typing and editorial skills in helping me to produce the dissertation document.

I accept responsibility for the contents of this study and its limitations. I hope the reader will accept some responsibility for the further development of Client Demand methodology. What this study describes is methodology at a point in time. This study is not an ending, I hope, but a beginning.

Identification of Client Demand for Public Services:

Development of a Methodology (April 1973)

Richard T. Coffing, A.B., Stanford University

Directed by: Dr. Thomas E. Hutchinson

ABSTRACT

This study can best be understood as a series of successively narrower focuses from a very broad problem area to the specification, testing and revision of an operational solution to a narrow but important class of specific problems. Then some recommendations are made for further research, development and application, and some broader implications of the study are discussed.

In Chapter I, it is asserted that the general purpose of our political system is to promote the welfare of its constituents. Because welfare is an attribute of individual citizens, definable by them, and because the State and other organizations exist to serve these persons, their needs are criteria by which public services should be formulated and evaluated. To respond to the needs, it follows that public service decision-makers should know what the needs are, as defined by the constituents. Defined specifically in operational terms, these demand criteria can be crucial data for decision-making.

It is contended that many decision-makers want such data but do not have them and that many constituents want to communicate their

demands about services but often are unable to do so with sufficient specificity and focus. It is further argued that the problem can be viewed usefully as a methodological one and that there is justification for developing new methodology. "Methodology" is defined, after Hutchinson, as "a systematic, standardized, operational set of rules and procedures for accomplishing a defined purpose."

The stated purpose for the methodology developed in this study is "to provide client demand data for public service decision-making." The term "demand" refers interchangeably to needs, wants or demands of clients as defined by them. The term "client" is used rather than "constituent" because the demand problem pertains to non-governmental as well as governmental agencies. The stated purpose is tested by criteria of "desirability," "operationalizability," "insufficiency of existing methodology," and "practicability." In determining the insufficiency of existing methodology, some literature is reviewed in systems engineering, marketing research, public planning, educational planning, and comparative administration.

Chapter II presents the design for development of Client Demand methodology. The design employs some general procedures for methodological development that have been conceptualized by Hutchinson. Delimitations of the study are also identified.

In Chapter III, some implications of the purpose are identified and analyzed. From these implications are derived the major elements of the methodology. Then the chapter presents "Draft I" of the prescriptive rules and procedures of the methodology, along with a narrative rationale.

In Chapter IV, the next steps in development--testing of logic and field testing--are described as they were applied to Draft I. A parsimonious field test was defined and implemented, involving a single decision-maker and a single client. The methodology was shown to produce client demand data for decision-making under the particular test conditions, and the field testing provided the developer with data for revising Draft I.

In Chapter V, immediate revisions to Draft I are described. Since the field testing provided more data than seemed reasonable to incorporate immediately into the methodology, further revisions are recommended in Chapter VI.

Chapter VI, the concluding chapter, presents the developer's recommendations for further research, development and application. Some broader implications of the methodology are discussed, including the relationship of this methodology to the broad human welfare problem with which the study began.

In the Appendix, Draft II of the methodology is presented. Draft II incorporates the revisions discussed in Chapter V and other changes that reflect further methodological development beyond the scope of this study.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iv
ABSTRACT	vi
LIST OF TABLES	xi
LIST OF FIGURES	xiii
Chapter	
I. OVERVIEW OF THE PROBLEM AREA AND STATEMENT OF THE PROBLEM	1
An Overview of the Problem Area	
II. DESIGN FOR DEVELOPMENT OF CLIENT DEMAND IDENTIFICATION METHODOLOGY	19
Procedures	
Delimitations	
III. CLIENT DEMAND IDENTIFICATION METHODOLOGY-- DRAFT I WITH RATIONALE	27
Some Implications of the Purpose	
The Sequencing of Main Elements	
Draft I of the Methodology: Procedures with Rationale	
IV. EVALUATIONS OF DRAFT I OF THE METHODOLOGY	104
Tests of Logic	
Field Tests	
V. REVISIONS TO DRAFT I RESULTING FROM THE EVALUATIONS	256
VI. RECOMMENDATIONS FOR FURTHER RESEARCH, DEVELOPMENT AND APPLICATION	264
Recommendations for Application	
Recommendations for Development	
Recommendations for Research	
Some Implications of the Methodology	

Page

APPENDIX: CLIENT DEMAND IDENTIFICATION METHODOLOGY--DRAFT II	277
REFERENCES	332

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
1	The Merging of Several Priority Lists	51
1A	Decision-maker's Prioritization of Clients	126
2	Other Person's Demands	149
3	Client's Prioritization of Demands According to Two Criteria	166
4	Client's Allocation of "Importance" to His Demand List	171
5	Developer's (as "Other Person") Test of Completeness Responses to First and Second Hypothetical Situations Concerning "To Clarify My Own Ideas About Future Plans"	183
6	Client's Prioritization by "Importance" of Components of "To Clarify My Own Ideas About Future Plans"	188
7	Person "A's" Test of Completeness Responses for "To Have Protege Relationship With [My Advisor]"	200-201
8	Person "B's" Test of Completeness Responses for "To Have Protege Relationship With [My Advisor]"	202
9	Person "C's" Test of Completeness Responses for "To Have Protege Relationship With [My Advisor]"	203
10	Client's Additional Items from First Situation Tests of Completeness Responses of Persons A, B and C for "Protege"	204
11	Client's Additional Items from Second Situation Tests of Completeness Responses of Persons A, B and C for "Protege"	205
12	Person "D's" Test of Completeness Responses for "To Clarify My Own Ideas About School"	209

LIST OF TABLES (cont.)

<u>Table</u>	<u>Title</u>	<u>Page</u>
13	Person "F's" Test of Completeness Responses for "To Clarify My Own Ideas About School"	210
14	Person "E's" Test of Completeness Responses for "To Clarify My Own Ideas About Future Plans"	216
15	Person "F's" Test of Completeness Responses for "To Clarify My Own Ideas About Future Plans"	217
16	Client's Final Approved List of Demands	219
17	First-level Breakdown of "To Clarify My Own Ideas About Future Plans"	224- 225
18	First-level Breakdown of "To Clarify My Own Ideas About School"	226- 227
19	First-level Breakdown of "To Have Protege Relationship With Arnold"	228- 230

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	Main Steps of the Design Process for Developing Client Demand Identification Methodology in this Study	20
2	A Diagram of Domains of Concern to the Decision-maker	63
3	Some Hypothetical C.D.I. Data Reported, Decisions Made, and C.D.I. Data Used	99
4	Some Hypothetical Decision-maker Priorities, Decisions Made and C.D.I. Data Used	100
5	Focus Matrix for Hypothetical Example	100
6	Hypothetical Use of C.D.I. Data Reported to the Decision-maker	101
7	Memorandum Used by the Developer to Contact Decision-makers	116
8	Client's Narrative Response to First Hypothetical Situation Concerning "To Clarify My Own Ideas About Future Plans"	180
9	Client's Narrative Response to Second Hypothetical Situation Concerning "To Clarify My Own Ideas About Future Plans"	181
10	Client's Narrative Response to Second Hypothetical Situation Concerning "To Clarify My Own Ideas About Future Plans"	186
11	Client's Responses with Developer's Analysis for "To Have Protege Relationship With [My Advisor]"	191
12	Client's Responses and Developer's Analysis for "To Clarify My Own Ideas About School"	193
13	Client's Responses for "To Be Able To Communicate Clearly My Thoughts To Others So That They Are Understood"	196

LIST OF FIGURES (cont.)

<u>Figure</u>	<u>Title</u>	<u>Page</u>
14	Client's Superceded Response to "Nothing-to-Do-With-It" Test of Completeness for "To Clarify My Own Ideas About School"	213
15	Client's Responses to the "Nothing-to-Do-With-It" Test of Completeness for "To Clarify My Own Ideas About School"	214

C H A P T E R I

OVERVIEW OF THE PROBLEM AREA AND STATEMENT OF THE PROBLEM

The general purpose of our political system is to promote the welfare of its constituents. Because welfare is an attribute of individual citizens, definable by them, and because the State exists to serve these individuals, their needs are criteria by which public services should be formulated and evaluated. An implication of the general purpose, then, is that the persons who make decisions about public services must find out what the constituents need, as defined by the constituents. These criteria, stated in operational terms, can be crucial data for public service decision-making.

In this study it will be contended that many decision-makers want such data but do not have them. It will further be argued that the problem can be viewed usefully as a methodological one and that there is justification for developing new methodology. Beginning with a broad problem area, this chapter will cycle through successively narrower scopes until the specific methodological development purpose is defined. The study problem, then, will be to develop and initially field test a methodology for accomplishing the defined purpose.

An Overview of the Problem Area

Given the general purpose of the political system, the founders of this Republic did not intend that decision-makers should work on the basis of tenuous inferences about the desires of their constituents. On

the contrary, it was felt that under this governmental design, public officials would know their constituents well. Part of the rationale for the elected House of Representatives, for example, was that

. . . it is particularly essential that (the House) should have an immediate dependence on, and an intimate sympathy with, the people. (Hamilton or Madison, n.d.)

Knowing in specific terms what program outcomes their constituents wanted, legislators presumably could perform the required program engineering and work out compromises among conflicting demands.

As the country grew, however, the size of constituencies increased well beyond the personal acquaintance of elected representatives. The volume of service demands changed radically both in number and in type. As White (1955) expressed the changes:

Two centuries ago people expected little but oppression. A century ago they expected chiefly to be left alone. Now they expect a wide range of services and protection.

Increasingly less able to maintain personally "an intimate sympathy with the people," legislators developed reliance on indirect mechanisms to help them process information: the lobbying activities of special interests, the legislative specialties of trusted colleagues, committee hearings, paid and voluntary assistants, public opinion surveys, the Press, and (not least) the expanded capabilities of executive agencies. The key information problem for legislators became "finding reliable sources, rather than finding facts." (Schneier, 1970)

At state and local levels as well as national, size and diversity of the population have become problems for both elected and appointed

officials. It is simply impossible for the five-person elected Board of Supervisors of Santa Cruz County, California, for example, to know personally the needs of their 140,000 constituents as those needs might be defined by the constituents.

From the perspective of the constituent whose welfare the system is intended to promote, the indirect mediating mechanisms have served sometimes well, sometimes not. Increasingly, communication with decision-makers is problematic: the channels for some constituents--particularly ethnic and racial minorities--and for some demands are discontinuous or highly selective. Sometimes the constituent's immediate problem is not how to communicate directly and continually, but how to communicate at all.

Symptomatic of the problem, many public service agencies have been experiencing what might be called "client revolts." Voters reject bond issues, young people flout drug laws, Indians close down the Bureau of Indian Affairs, students seek power, citizens demand greater "accountability," and so on.

Different constituents want different things, and they express themselves in many different ways--some visible, some not. To the decision-maker, the constituents' behaviors can be highly ambiguous. Overt actions such as riots, demonstrations, lobbying campaigns, and bond issue votes tend to compress information into a very few general symbols and slogans. Often the compressed rhetoric lacks operational meaning for the decision-maker. And the actions and rhetoric can be interpreted in such a variety of ways that it may be impossible to for-

ulate appropriate service responses.

The silence of many constituents can be equally puzzling. Does silence mean satisfaction? Indifference? Lack of opportunity to be heard? Does it mean that some constituents simply have not thought about a particular service or problem? Or does the constituent think it is too much trouble to find out who to contact and too likely to be a futile effort?

Non-governmental organizations are not exempt from such difficulties. The purpose of many organizations, in fact, is to promote the welfare of definable constituencies. This may be true for religious, social, economic, political, charitable, labor, and educational organizations. Members and leaders sometimes find themselves facing constituent demand problems, either internally among themselves or externally with clientele they intend to serve.

Thus, the decision-makers who might need and want client demand data might be: elected or appointed public officials, civil servants, educators, staffs of community service agencies (public or private), counselors, urban planners, providers of health care, or others.

Functionally, the constituents can be called "clients." Examples of clients might be citizens, members, users of services, employees, donees, taxpayers, students, decision-makers themselves, or colleagues.

If this is the broad scope of the problem, how can a more narrow focus be stated? For one thing many persons do not have a client demand problem, from their own perspective. For those persons, there is effectively no problem to solve. Many decision-makers, of course, know

to their own satisfaction who their clients are and what their clients want. Others really may not care to know.

It seems reasonable to assume, then, only that some decision-makers, somewhere, want to know but find themselves without the desired information. For them, the problem is: how to obtain data about client demands that they will actually use in making decisions about services.

The public service decision-maker's client demand problem is in fact multidimensional. It has a political dimension, an organizational dimension, an economic dimension, a methodological dimension--to name a few. Analysis could be pursued in terms of each dimension and each represents a narrower, but important, set of problems to be solved. In terms of the political dimension, for example, given the changes in the expected role of government noted by White, one might ask what changes might be made in political structures. In terms of the organizational dimension, what patterns of organization might improve the communication of client demands? In terms of economic decision-making, how might one measure the "consumer utility" (Ostrom and Ostrom, 1971) of public goods and services? In terms of the methodological dimension, what methodology is needed to enable a decision-maker to obtain client demand data and how can the needed methodology be made available?

Obviously, it would fall outside the scope of this dissertation to attempt to solve all such sets of problems that a public service

decision-maker may face. Since the methodological problems seem reasonable to attack and since they are of greatest interest to the author, this study will be concerned with them. Consequently, no direct attempt will be made in the study to deal with the political, organizational, economic or other dimensions.

In order to further narrow the scope, in the analysis which follows the author will be implementing a logic of methodological development as initially conceptualized by Hutchinson (Coffing, 1971; Hutchinson, 1972a). A methodology as defined by Hutchinson (1972a) is "a systematic, standardized, operational set of rules and procedures for accomplishing a defined purpose." Given this definition,

. . . a methodology can be looked at as an abstract but operational solution to a class of problems. It is abstract because it does not supply a specific solution to a specific problem but it supplies the means by which that specific solution is derived. It is operational because the steps by which the solution is arrived at are as prescriptive as possible. (Thomann, 1973).

The general logic can be outlined as follows (Thomann, 1973):

1. Put methodologist in touch with problem.
2. State a purpose derived from problem.
3. Test the purpose by criteria such as
 - a. Is it desirable?
 - b. Is it operationalizable, i.e. definable by attribute in terms of directly observable behaviors or states?
 - c. Are existing methodologies insufficient?
 - d. Is it practicable?
4. If all answers are affirmative, then analyze

implications of the purpose.

5. Operationalize the purpose.
6. Design procedures.
7. Test the procedures.
8. Revise the purpose and/or procedures if necessary.

A methodologist might recycle through these procedures any number of times, depending on the methodological problems he encounters. For example, if a stated purpose fails to meet the test of operationalizability, then it might be re-stated and tested in its revised form.

This set of procedures and their sub-procedures have been called "Meta-methodology," which is itself a methodology--one whose purpose is to generate methodologies for any definable purpose. For a discussion of "Meta-methodology," the reader is referred to James Thomann's paper, "Meta-methodology: An Overview of What It Is and How It Was Developed" (1973).

A methodology is a solution to a class of problems. The "client demand problem" of this study is a class of problems because different decision-makers are concerned about different services and about different clients who have different demands. To deal with a class of problems in methodological terms, one must first be able to state a purpose. The stated purpose derived from the client demand problem is: "to provide client demand data for public service decision-making."

The first test of the stated purpose is whether it is desirable. If a purpose were not desirable, then there would be no reason for a methodology to accomplish it. Presumably a methodologist should spend

his energies on methodologies that are desirable to other people as well as himself. Without intending to be flip, one can say that if there were a client demand methodology, one could use it to identify the need for a client demand methodology. For this study, however, it is simply assumed on the basis of arguments raised above that some decision-makers either want to be provided with client demand data or they would want such data to be provided if they were aware that it was possible. Further, it is believed that many clients and client groups would welcome the direct communication of their demands to decision-makers if they could see that decisions were to be based on such information.

Given a desirable purpose, a second test is whether the purpose is operationalizable, i.e., definable by attribute in terms of directly observable behaviors or states. If a purpose is not operationalizable in this sense, then one cannot observe its accomplishment. A methodology for achieving brotherly love among all human beings might be considered very desirable, but if that purpose cannot be operationalized, then one cannot know the extent to which any methodology actually accomplishes the purpose. On the other hand, an operationalizable purpose provides the criteria for solving the problem from which it is derived. At this stage of testing a purpose, it is sufficient to make only a prima facie judgment of operationalizability. The stated purpose contains two general concepts: a concept of client demands and a concept of data for decision-making. It seems reasonable to believe that people can specify in directly observable terms their demands for services,

and that one can test for what people want according to them. Thus, "client demands" would appear to be a definable concept. It seems possible to find out whether a public service decision-maker uses certain data in his decision-making. Thus, "data for decision-making" also would appear to be a definable concept.

Given a desirable purpose which is also operationalizable, one would want to know whether existing methodologies were insufficient. Methodologies might be insufficient either because they do not concern the given class of problems or because they have methodological gaps. One would not want to develop a new methodology if known methodologies will accomplish the purpose or if gaps in known methodologies can be filled with less expenditure of resources than required for developing a new methodology. In applying this criterion, the author reviewed literature in the following areas: political systems analysis, planning, evaluation, systems engineering, marketing, educational needs assessment, educational engineering and accountability, micro-economics, planning-programming-budgeting, policy science, and organization development. In the literature reviewed, there are some methods that appear relevant to the client demand problem. A discussion of these follows.

In A Methodology for Systems Engineering, Hall (1962) discusses "needs research," which he defines as "the process of determining the absolute value of the need in terms of all its component factors, the value relative to other needs, and the particular system properties wanted" (p. 167). Hall outlines some components of needs research such as "searching for product and service opportunities," calculation of

"individual demand" functions in economic terms, calculation of "market demand" functions, conducting "sampling operations upon the market," conducting motivation research, and conducting a series of "market trials" (pp. 168-221). While the purposes of needs research would appear to be close to that of client demand identification, the discussion is incomplete. The methods are not prescriptive, nor are there provided any decision rules for selecting among general alternative approaches to needs research. Hall concludes his chapter as follows:

We have discussed several different approaches to the study of needs. Although partisans of market research, motivation research, systems simulation, or market trials might protest, none of these approaches is best for all situations. . . . In some situations certain approaches will simply be irrelevant. In other situations no combination of approaches may be up to the task, so if one is to have action at all he must accept the risk of not finding out exactly what the needs are. Usually one or two approaches will do the job, as it is an important part of needs research to match a suitable set of approaches to the situation at hand. (p. 221)

Thus the reader is provided with some reasonable rules of thumb and with some references to some alternative "approaches," but not with a methodology for needs research in the sense that the term "methodology" is used in the present study.

In literature of marketing research, one finds concepts, methods and techniques which appear relevant to the identification of client demand for public services, although there appear to be insufficiencies with respect to purpose, standardization, and complete specification.

Kotler (1972) believes that marketing research techniques can, and should, be applied in the service of governmental agencies. He asserts

that governmental agencies have markets like business markets, and he recommends the application of four kinds of marketing research approaches:

In general, marketing research can be used to research four characteristics of any market. Need studies attempt to establish what the members of a market feel they need or want. Image studies attempt to measure how a particular industry or organization is seen by different segments of the public. Attitude studies attempt to identify the major attitudes of the market toward particular products and/or organizational practices. Buyer behavior studies attempt to determine how buyers go through the buying decision process. All of these studies have the potential of helping government agencies serve their publics better. (p. 15)

Given the absence of a price mechanism in the political system (Cooper and Ojala, 1970; Young and Coffing, 1971), one can perhaps question the isomorphism of business and governmental "markets." The key question for purposes of this study, however, concerns methodology. Given the purpose of identifying client demands for public services, does marketing research provide a systematic, standardized, operational set of rules and procedures for accomplishing that purpose?

"The purpose of [marketing research]," according to Green and Frank (1967),

is to provide information useful for the identification and solution of marketing problems. . . . Stated succinctly, these problems, subject to profit considerations, can be characterized as follows:

What to sell?
 To whom to sell?
 When to sell it?
 How to sell it? (p. 6)

According to Schreier (1963), "Modern marketing research fulfills the

functions of description, explanation, prediction, and evaluation, and contributes to decision-making" (p. xvii). "The aim of marketing research," he says, "is to obtain quantitative information . . ." (p. 66). One can conclude that the purpose or purposes of marketing research are not the same as client demand identification. They may include the latter, but that is not clear.

In terms of methods of marketing research, Green and Frank describe some recent developments in generic behavioral measurement techniques: the applications and limitations of scaling techniques, content analysis, sociogram analysis, and experimental gaming. They do not, however, suggest the existence of a general methodological framework for such techniques.

Schreier describes marketing research as "a complex structure, a cluster of ideas, concepts, methods and techniques. Its phases cannot be treated separately because they are interconnected" (p. vii). He discusses the subject area in terms of phases, emphasizing survey design methods, and discusses some kinds of data which might be sought including "needs data" and "product image data." With respect to these two kinds of data, however, he does not provide explicit, prescriptive procedures for data definition and data gathering. Presumably the researcher would select some methods from among those which Schreier describes or refers to. The rules and procedures for such decisions are unclear.

In the field of public planning, Wheaton and Wheaton (1972) review efforts of economists and planners to "identify the public interest."

Three large-scale goal formulation projects--for Chicago, Los Angeles and Dallas--are summarized, and the reviewers comment that

All three attempts at goal formulation by widely separated governmental entities included some measure of citizen participation, which means that other than the planners were involved. Further, the recognition that some kind of "public discussion" was necessary was a basic part of the efforts, whether this meant discussion by citizens or nongovernmental professionals with some responsibility for the citizen interests. Lastly, though the final decision mechanism is unclear, the effort to reach a social consensus is clearly a part of each of the procedures. This is some advance over past goal formulation efforts. (pp. 54-55)

Recognizing that identifying the public interest is of crucial importance in public planning, Wheaton and Wheaton conclude that recent approaches are far from adequate and that

We must go back to the social sciences and develop far more systematic procedures for sampling the desires of the population. . . . Planners can no longer rely upon either simple goal statements or simple consultation procedures. As a profession, we must devise new ways of measuring choice alternatives and new means for reaching the people. (p. 58)

Umpleby (1970) proposes the development of computer-assisted "citizen sampling simulations" as a "method for involving the public in social planning." The proposed man-machine technology is intriguing and eventually may be relevant to some extent for client demand methodology. However, the purpose is not to identify client demands for public services, but rather to obtain feedback about proposed policies:

The teaching computer could be used by planning personnel to present policy alternatives, as they see them, to the public. Background information would be available upon the request of the person using the "computer-based exploration of alternative

futures." The probable consequences of each alternative could also be a part of the programmed material. During the course of the exploration each individual would or could be asked to rank them in order of preference. As he explored the alternatives, background information, and probable consequences, the "explorer" would be able to use a "comment mode" to suggest (a) additional alternatives, (b) inadequacies in the background information provided, or (c) his own judgments about the probable consequences of an alternative action. (pp. 364-365)

In educational planning, the last four years has seen the application of a new process called "the educational facilities charrette."

According to Tonigan (1972),

. . . School districts across the nation have conducted charrettes to master-plan new campuses, to analyze curriculum and facility requirements and to plan rehabilitation projects. Charrettes have been conducted in Baltimore, Charlotte, Albuquerque and some thirty or more other locations.

He describes a charrette as follows:

A charrette can be likened to a heavily-attended, program-packed workshop. For a pre-determined number of days (three to ten days, depending on the scope and nature of the problem) all interested lay and professional citizens openly discuss all aspects of a problem. A loosely-structured, but definitely formalized, agenda guides the general charrette process. It always has the flexibility to shift gears--to listen to impromptu speakers, to take a neighborhood tour, to continue a discussion, etc. Meetings start early in the morning and often run into the wee hours of the following morning. . . . The end product is normally:

- Vastly improved understanding of a major school-community problem by a large number of local citizens.
- One or more proposed or agreed upon community-generated solutions for a major school-community problem.

Only in its broadest structure is the charrette process standardized,

Tonigan suggests, and as a result a high degree of "technical assistance" is strongly advised. A charrette also requires a substantial time commitment from its participants, which suggests it can be unrepresentative of a whole constituency and that it is an impractical process for open-ended identification of client demands with respect to broad service areas. Its intended scope also extends beyond the providing of data for decision-making inasmuch as it is expected to produce consensual "solutions" to the problem for which it is organized--thus presumably committing a decision-maker politically to some course of action. For these reasons, the charrette process does not appear to constitute a methodology for identifying client demand for public services.

Cyphert and Gant (1970) have suggested using "the Delphi Technique" for the purpose of "scientifically assessing the needs, desires, and opinions of clientele." As they describe it,

The Delphi Technique completely eliminates committee activity and replaces it with a carefully designed program of sequential interrogations, interspersed with information and opinion feedback. The questioning usually is conducted best by a series of questionnaires. (p. 417).

The Delphi Technique, however, is essentially a consensus-producing device (Cyphert and Gant, 1970; Weaver, 1971), and therefore its products are manifestly unrepresentative of any persons who do not participate in the process. Thus its utility for identifying client demand for public services would appear to be quite limited, and it is not considered a sufficient methodology for the purpose.

Under the auspices of the International Institute of Administrative

Sciences, Soysal (1966) reports results of international surveys of the influence of the public on the operation of public administration, excluding electoral rights. A number of modes of influence can be abstracted from his general report, although none appear to be "methodologies" as defined here:

1. Review of complaints.
2. The custom of kabary.
3. Political intrigue.
4. One-party system.
5. Petitions.
6. Ombudsman.
7. Voluntary organizations.
8. Citizen administration.
9. Consultation.
10. Participation.
11. Collaboration.
12. Association.
13. Letters to the press.
14. Boards of inquiry.
15. Reading newspapers.
16. Personal contacts.
17. Client meetings attended by officials.
18. Opinion polls.
19. Appointment of sub-prefects for citizen contact.

Of those approaches, methods, or techniques which the various national reporters identified, Soysal believes that,

. . . The Ombudsman institution exactly meets the need to establish a direct connection between the administration and the citizen, a connection that does not become lost in the complicated mechanism of parliamentary politics, but does enjoy the prestige conferred by the representation of the national will. (p. 24)

From the standpoint of identifying client demands for public services, however, the ombudsman institution would appear to be much narrower in scope--dealing with a much narrower and therefore unrepresentative range of demands--than would be required for providing client demand

data. The ombudsman institution is not intended to open-endedly identify demands, nor is it intended to ascertain the extent to which the specific complaints or problems that persons raise are representative of a constituency.

To summarize: existing methods and techniques reviewed above are not considered to be sufficient to accomplish the purpose of providing client demand data for public service decision-making. Some of them, however, might turn out to be useful pieces of a methodology for client demand identification, if such a methodology can be developed.

The fourth and final test of a purpose is whether it is practicable. Given a purpose which is desirable and operationalizable and for which existing methods are judged to be insufficient, one would want to determine at least in a preliminary way whether a methodology for accomplishing the purpose can be developed within available resources. With respect to the purpose of providing client demand data for public service decision-making, two kinds of resources can be identified: (a) a set of conceptual guidelines for methodological development and (b) the time of the methodologist and of other persons who are accessible to him. The conceptual guidelines are provided by the "metamethodology" under development by Hutchinson and Thomann (Thomann, 1973) in the form of the earliest written version as described above. The time resource includes approximately a man-year for the methodologist and various amounts of time of the three dissertation committee members, Hutchinson (chairperson), Flight and Young, each of whom has interests and expertise of direct relevance to the study. Thus, there

appear to be sufficient resources available for methodological development. The existence of this dissertation serves to confirm the preliminary judgment of practicability.

The next step is to prepare a design for the development of a methodology. The design for developing Client Demand Identification methodology is described in Chapter II.

C H A P T E R I I
DESIGN FOR DEVELOPMENT OF
CLIENT DEMAND IDENTIFICATION METHODOLOGY

The study problem is to develop and initially field test a methodology for accomplishing the purpose: "to provide client demand data for public service decision-making." How to develop a methodology (in order to solve a problem) is itself a problem which requires a methodology for its solution. In Chapter I, the Hutchinson-Thomann "meta-methodology" (Thomann, 1973) helped to narrow the focus of the study. The metamethodology's relevance for methodological development is suggested by Thomann as follows:

[Given] that a methodology is an abstract but operational solution to a class of problems, then Meta-methodology provides for the development and testing of methodologies for any class of definable problems and therefore is a solution to the class of problems: all definable problems. (p. 6)

For the present chapter, the design for development of client demand identification methodology is derived from the procedural logic of the metamethodology as outlined in Chapter I.

Procedures

Figure 1 shows the main steps of the design process for this study.

The first two steps are:

1. State the purpose.
2. Test the purpose for methodological development by applying criteria of desirability, operationalizability, insufficiency of existing methodology, and practicability.

These two steps were accomplished in Chapter I. The following steps

-
1. State the purpose of the methodology to be developed (see Chapter I).
 2. Test the purpose by applying criteria of desirability, operationalizability, insufficiency of existing methodology, and practicability (see Chapter I).
 3. Analyze implications which the purpose has for methodological development (see Chapter III).
 4. Operationalize the purpose (see Chapter III).
 5. Design procedures for accomplishing the purpose (see Chapter III).
 6. Test the procedures (see Chapter IV).
 7. Revise the purpose and/or the procedures if the purpose is not met under test (see Chapter V).
 8. Report and analyze both the process of the study and its results in terms of its purpose (Chapters I through VI).
 9. Make recommendations for further research, development, and application (see Chapter VI).
 10. Analyze some implications of the methodology, if one is produced (see Chapter VI).
-

Figure 1. Main Steps of the Design Process for Developing Client Demand Identification Methodology in this Study

can be specified for the balance of the methodological development:

3. Analyze implications which the purpose has for methodological development.
4. Operationalize the purpose.
5. Design procedures for accomplishing the purpose.
6. Test the procedures.
7. Revise the purpose and/or procedures if the purpose is not met under test.

The purposes of a dissertation suggest some additional steps to be implemented in this study:

8. Report and analyze both the process of the study and its results in terms of its purpose.
9. Make recommendations for further research, development, and application.
10. Analyze some implications of the methodology, if one is produced.

Chapter III will encompass the third, fourth and fifth steps. The purpose of the third step is to stimulate a search for implications that will suggest to the developer various things to be considered, to be studied or to be incorporated into later steps. For example, the implication that there is a decision-maker raises a number of important issues. Is the decision-maker one person or a group? How does that matter for developing a methodology? How might decision-makers be identified? What, if anything, should decision-makers be expected to do? How might a methodology employ the decision-makers' "images" of their needs for decision-making data? How might their "images" of clienteles be used? The heuristic search for implications and for the answers to questions such as these prepares the developer for succeeding

steps: for example, the implications may suggest who should participate in the operationalizing of the purpose. In order to accomplish the third step, the developer will identify and analyze as many implications as he reasonably can, including suggestions by other persons.

The fourth step is to operationalize the purpose for which the methodology is to be developed. In this study the step will be accomplished by specifying the attributes which a client demand identification methodology should have at the most general level (main elements of the methodology, identified in terms of major sub-purposes) and then at successively more specific levels. Thus, in practice the fourth and fifth steps will occur in combination during the development of the methodology. Analytically, the fourth step's results with respect to the procedures of the methodology will be expressed as rationale for the procedures.

The fifth step is to design procedures for accomplishing the operationalized purpose. In general there are two approaches which a developer might follow. One is to decide what must be done first, what must occur before anything else can be done. The developer then links that first step with what seems to him to be the related sub-purpose(s) of the methodology. Then he defines the second step and links it with its related sub-purpose(s); and so on, until the methodology is completed. The other approach is to imagine the best possible final outcome, that is, the full realization of the operationalized purpose, and work back from there; what is the last thing that must be done in order to achieve the purpose? Then the developer would link that last

step with the related sub-purpose(s), and proceed to define the next-to-last step, and so on. The approaches can be followed at various levels of procedure from the most general to the most specific. In this study, the developer will employ a mix of both approaches depending on the problems he encounters. The results will be reported in Chapter III.

Step six involves evaluating the methodology. Step seven involves revising the procedures and/or the purpose based on the evaluations.

The design for carrying out these two steps anticipates that two iterations of them will be necessary as a minimum. The first iteration of the sixth step entails testing the methodology by examining its logic and its parts with respect to the main purpose; the aim is to identify any gaps. This performance of the step will be accomplished by the developer's obtaining other persons' reactions to a draft of Chapter III, in which will be presented both a narrative rationale and the specific procedures that have been developed as of a point in time. The first iteration of the seventh step, then, will entail any revision of the procedures or rationale that are suggested by these tests of logic.

The second iteration of the sixth step will be a field test of the methodology. In this field test, the developer will apply the methodology directly to a particular decision-maker with respect to that decision-maker's concerns for client demand data. The second iteration of the seventh step will entail any revision of the procedures or rationale that are suggested by the field testing.

The sixth-step tests of logic and field tests will be reported in Chapter IV. Immediate revisions (the seventh step) of Draft I that result from those evaluations will be reported in Chapter V.

Taken as a whole, Chapters I through VI represent the performance of the eighth step: reporting and analyzing both the process of the study and its results in terms of its purpose.

The ninth step, making recommendations for further research, development and application, is accomplished in Chapter VI. So is the tenth step, analyzing some implications of the existence of the methodology.

In the Appendix, Draft II of the methodology is presented without a revised narrative rationale. Draft II incorporates not only the revisions identified in Chapter V, but also some changes resulting from further development beyond the scope of this study.

Delimitations

Before the study is described in any greater detail, some delimitations can be noted. For instance, the purpose of the study is to develop methodology rather than to perform methodological research in a descriptive or experimental sense. The field test method is an evaluation study (see the preceding section on procedures). The field testing will be conclusion-oriented in the sense that if the methodology does not work in the test circumstances, it fails and needs to be revised.

The design procedures are based on a developing "metamethodology" which is not specifically tested during the study and which has not

been validated by methodological research. However, the use of the metamethodology will result in subjective data which may facilitate its further development.

A methodology does not seek to provide an absolute solution to the complete class of problems at any point in time. Yet it does strive to approximate this concept of perfect solution within the resources that are actually available up to that point in time. Given that (a) the client demand problem is multidimensional, (b) that this study deals with only the methodological dimension, and (c) that available resources are not unlimited, then it is assumed that this study will not completely solve the problem. It can be considered, however, to be a logical first step toward that solution.

The author does not know of any existing methodology sufficient for accomplishing the purpose of providing client demand data for public service decision-making. This does not mean that someone, somewhere, may not have developed a methodology unknown to him and to the community at large.

The product of the study will be a modified version of the methodology resulting from a very modest field test; it will not necessarily be generalizable beyond the immediate test circumstances, and even that limitation might have to be established by repeated testing with the modified version.

The intended field testing is the least expensive way to know whether the methodology works at all. If it does not work under those conditions, then data is obtained for revision and more extensive study.

If the study is carried out, therefore, it cannot fail to produce knowledge.

The study will not undertake to test the interaction of methodology characteristics with decision-maker or client characteristics.

The operationalization of the purpose will be only a partial one. The full range of decision-maker meanings for key terms such as "client demand" will not have been studied. Furthermore, the author does not have data about the range of alternative terms which in fact may be used by decision-makers to reflect approximately the concept of "client demand."

It is beyond the scope of this study to develop procedures for assessing the extent to which client demands are met or un-met. The developer intends, however, to pursue such development eventually. Such an extension of the methodology would then constitute a client demand analysis methodology.

C H A P T E R I I I

CLIENT DEMAND IDENTIFICATION METHODOLOGY--
DRAFT I WITH RATIONALE

Methodological development logically begins with the statement of a definable purpose and continues with the testing of that purpose by certain criteria, as described in the preceding chapter. When the tests have been met, development passes to succeeding stages which form the substance of the current chapter. They are (a) the identification of implications which the purpose has for methodological development and the analysis of those implications in terms of attributes which the methodology should have, (b) the arrangement or sequencing of those attributes into a rational order of elements, and (c) the design of a systematic, operational, standardized set of rules and procedures for accomplishing the purpose. Within these several stages are formulated the basic concepts, rationale and procedures of the methodology.

Some Implications of the Purpose

As noted earlier, the purpose is the key to methodological development. Implications of the purpose provide the developer with conceptual foundations for structuring a methodology for accomplishing that purpose. The stated purpose of the methodology under development in this study is "to provide client demand data for public service decision-making."

A salient implication of this purpose is that the data will be used in decision-making. (For extended discussion of providing data for decision-making, see Thomas E. Hutchinson's paper, "Some Overlooked

Implications of the Purpose: To Provide Data for Decision Making" [Hutchinson, 1972]). This means that the data will be used by decision-makers, i.e., by real people. A "decision-maker" for purposes of this study might be a single person or a set of persons acting as a group. Depending on which of these conditions obtains, some procedures may vary. The methodology must provide for identifying the particular decision-makers for whose use client demand data is to be provided.

Another implication is that the methodology will be applied by someone, namely by an "identifier." The identifier is a person who can apply the methodology in the service of particular decision-makers. A specific application of the methodology, tailor-made for a particular decision-maker, can be called a "design" or a "client demand identification design."

A decision-maker who will be served by this methodology is one who wants to know what certain clients' demands are with respect to some service area, field or "domain." The methodology must provide for identifying the clients and the domains from the decision-maker's perspective. The clients' demands then must be identified and specifically defined from the clients' perspective.

With respect to "clients," there is the implication that a given decision-maker may be concerned about persons "inside" as well as those "outside" his enterprise. Therefore, for purposes of this methodology the term "client" will be used in a broad sense to include any persons whose demands are of concern to the decision-maker. Thus, conceivably the clients might be constituents, consumers, employees, members, sub-

ordinate decision-makers, super-ordinate decision-makers, peers, or other persons--including, perhaps, the decision-maker himself.

If the client demand data are to be used by a decision-maker, there is the implication that the decision-maker must perceive that both the data and the process by which they are obtained are valid for his decision-making. This suggests that the methodology should provide for open-ended identification of the decision-maker's concepts of domains and clients. It should respond to his priorities for obtaining client demand data about particular combinations of clients and domains. And it should provide for obtaining the decision-maker's approval or willing acceptance of the procedures employed to provide data. Without these provisions, there is the danger that the decision-maker will ignore the data because he might believe that the data and/or the process lack validity for his use.

Another implication is that the data will be obtained directly from the clients, which implies securing their cooperation as well as obtaining demand data that are valid according to them. If the data are to be valid from a client's perspective, there is the implication that, with respect to any domain, the methodology must provide for open-ended identification of the client's demands. Moreover, the methodology must provide for specific definition of the demands from the client's perspective and not from that of the decision-maker, the identifier, or other person.

The implicit requirement of providing for both decision-maker validity and client validity suggests that the methodology must contain

procedures which objectively serve the subjective concerns of each party. This implies that the client must be enabled to define his demands in terms of directly observable behaviors and states--in which form there would be minimal loss of meaning in the transmission of demands between client and decision-maker.

The Sequencing of Main Elements

Having identified some of the purpose's implications and some attributes the methodology must have, the developer can arrange the attributes into a rational sequence of elements. In logical sequence, the main elements comprise a general outline of the methodology. For Client Demand Identification Methodology, the following main elements form the basis for developing Draft I of the methodology:

I. Promote Client Demand Identification. This element will include procedures for bringing the methodology to the attention of persons who might be served by its application. These potential clients of the methodology may want to obtain client demand data for their use, or they may desire that other persons within their influence be provided with such data.

II. Screen Initial Inquiries. Assuming that some potential clients of the methodology become interested in having it applied, there will be some need to screen out (a) any potential applications for which the methodology is not appropriate in terms of its purpose and (b) any potential applications which are not desirable in terms of the identifier's own purposes for doing C.D.I. work.

III. Negotiate a Service Agreement. This element will include procedures for specifying the terms of the identifier's relationship to the employing "enterprise" or organization, if there is one, and to the other persons who will be involved in the C.D.I. study. Availability of resources and the specification of reporting schedules would be included. If the identifier is an employee or member of the enterprise, then a memorandum may suffice. If he is independent of the enterprise, then a formal contract may be negotiated.

IV. Identify Decision-makers. In order to meet the implications of the purpose, it is necessary to identify precisely the persons for whose use the data will be provided. This element designates a process for making that determination.

V. Identify Clients. The purpose implies identifying precisely the clients of concern to the decision-maker for whom client demand data is to be provided, and this element will provide procedures for doing that.

VI. Identify Domains. This element will provide for identifying the decision-maker's concept of the domain or domains of concern to him, for which he wants to know the clients' demands.

VII. Identify Client Demands. These procedures will serve to identify what the client wants for himself and for others with respect to the domain.

VIII. Operationalize Client Demands. To be valid for both the client and the decision-maker, the demands eventually must be stated in terms of directly observable behaviors or states. In the developer's

view, there is no element more crucial than this one for the direct and complete communication of "what the client really wants."

IX. Report Operationalized Demands. Operationalized client demands will be reported to the decision-maker for his decision-making use.

X. Re-identify and Redefine. In order to maintain or increase the utility of a C.D.I. design, the methodology will provide for recycling through previous elements. Changes can thereby be introduced into the design, responding to changes in decision-makers, clients, domains, demands, and operationalizations.

XI. Evaluate the Design. The identifier needs to determine how effective the design is in providing client demand data that is actually used in decision-making. For this element, the developer will draw upon parts of the Fortune/Hutchinson Evaluation Methodology (Benedict, 1970).

XII. Revise. On the basis of the evaluation data, revisions in the C.D.I. design may be made. For example, this element will provide for (a) extending the design to alternative or additional decision-makers, domains or clients and (b) correction of failures in the design.

Draft I of the Methodology: Procedures with Rationale

A methodology is an emergent process. One can only describe it as of a point in time although development may continue well beyond the particular description. So it is with Client Demand Identification Methodology. The remainder of this chapter presents a set of rules and procedures which can be designated Draft I. With the Draft I procedures

are also presented a rationale for them, more specific than the implications, and notations of methodological gaps known to the developer at the Draft I stage. Additional gaps undoubtedly exist. Many parts of the methodology remain only partially operationalized. Yet in this form, the methodology is thought to be sufficiently complete both for testing its logic and for initial field testing.

In an appendix, the reader will find the procedures of Draft II of the methodology, also as of a point in time but without rationale. The reader who is interested in understanding, and possibly using, Draft II will therefore find the remainder of this chapter to be a helpful first step.

The various procedures of the methodology are presented in outline form within boxes, while the related parts of the rationale and the notation of gaps are presented in narrative form.

Step I. Promote Client Demand Identification Services.

If no one were aware that he wanted client demand data, and if no one knew that client demand identification services were available, then it would be unlikely that C.D.I. services would be used. The first step in the methodology, therefore, has the purpose of producing a pool of potential applications of the methodology. The pool will be of sufficient size when the identifier is able to select from it as much C.D.I. work as he desires which is both appropriate in terms of the purpose of the methodology and desirable in terms of his purposes for applying the methodology.

An implicit reason for this step is that the methodologist wants the methodology to be used--not to lie on a shelf. One way to increase the likelihood of usage is to have the persons who are trained in the methodology do promotional work for it. Trained identifiers are the persons--other than the methodologist--who are most interested in identifying potential applications.

The sub-steps for Step I. remain to be developed, because it is believed to be less crucial than other steps at this initial stage of development of the methodology. In part, it is less crucial because it is likely to involve using promotional methods already in existence and is not peculiar to client demand identification.

The field evaluation incorporates a specific example of promoting the methodology in order to obtain situations in which to test the procedures (see Chapter IV).

It is improbable that persons who have the data needs which the methodology is intended to meet will perceive those needs in precisely the same terms that are used here; the language of client demand is not believed to be at all prevalent among public service decision-makers. Rather, the developer has assumed that there are persons who have the problem and who will recognize it in client demand terms with the assistance of promotion.

Step II. Screen Initial Inquiries.

If the first step has been effective, the identifier will have a

sufficient number of potential applications from which he can choose those which are both appropriate in terms of the purpose of the methodology and desirable in terms of his own purposes. Screening for appropriateness is important because persons who think they want C.D.I. services based on promotional information may not, in fact, have the problem which the methodology is designed to solve. They might think, for example, that C.D.I. services will provide data about how well the voters will support a bond issue (this methodology does not intentionally provide "support" data, though presumably there are connections among what people want and what proposed decisions they will support).

Step II. (Continued)

- A. Screen by a prima facie test of "appropriateness" of this particular methodology.
 1. Identifier asks the inquiring person, "Do you know, or does someone you represent know, (a) who your clients or constituents are and (b) what they want?"
 2. If the answer is "Yes" to both parts, then tell the inquirer that he does not have need of C.D.I. services.
 3. If the answer to either one or both parts is "No," then identifier asks, "Do you, or does someone you represent, really want to know?"
 4. If the answer to the latter question is "No," identifier tells the inquirer that C.D.I. services are not needed.
 5. If the answer to the latter question is "Yes," then proceed to the next sub-step (II. B.)

The foregoing five sub-steps are intentionally simple. The idea is to screen out the most clearly inappropriate inquiries, and to do so with a minimum resource cost to both the identifier and the inquirer. In the event that the C.D.I. methodology becomes so popular that the demand for it greatly exceeds the time of available identifiers, then additional screening procedures should be developed. But the principle should remain that the procedures be simple and economical to administer, lest the identifier and client have too little time and resources left for applying the rest of the methodology.

Step II. (Continued)

- B. Screen by one or more tests of "desirability" in terms of identifier's personal goals.
 1. Identifier tells the inquirer the purpose of the methodology, if the inquirer does not already know it.
 2. Identifier asks the inquirer, "Why do you, or why might you, want to employ the methodology? What do you, or someone you represent, want to accomplish with it? What do you want it to do for you or others?"
 3. Identifier asks the inquirer to identify the "most important" goals that people in the enterprise of concern really want to accomplish; the reply should be solicited by the identifier in a manner that obtains goal statements which are as operational--as directly observable--as feasible under conditions of the inquiry.
 4. Identifier compares the answers he gets to the preceding questions with the dimensions of the identifier's own goals and intentions.
 5. Identifier decides whether degree of fit among the potential employer's goals and his own is

Step II. B. 5. (Continued)

sufficient to continue to the next procedure
--considering other available options for
employment.

- a. If the fit is not close enough, identifier closes out negotiations.
- b. If the fit is close enough, identifier proceeds to the next step: III. Negotiate a Service Agreement.

Clearly, an identifier will have his own goals for himself and for the methodology, and presumably he has goals for public service. Sub-step II. B. is intended to avoid applications of the methodology which are least likely to accomplish goals which the identifier may have in relation to the service area of the enterprise or with regard to the anticipated clientele of the enterprise. (Some data about the clientele may have been obtained in sub-step II. A.; if not, identifier may want to include pertinent questions in step II. B.--a small "gap" in the above procedures.) The identifier presumably wants the things he does to contribute maximally to the accomplishment of his own goals and intentions. He would therefore want to deliberately reject potential applications which would contribute least to the accomplishment of his goals and intentions. His goals thus are general criteria of desirability.

To the extent that the identifier's goals and intentions are stated in terms of directly observable behaviors or states, he will be able to apply them with commensurate precision as specific criteria. Therefore, the identifier may wish to operationalize his goals and in-

tentions as a conscious and deliberate preparation for doing C.D.I. work. (This advice would seem to be important for anyone who might be doing anything at all of importance to themselves.)

A principal reason the developer has for including this step as a part of the methodology is that if it were not an explicit procedure, the identifier could inadvertently find himself working on behalf of purposes with which he disagreed to such a degree that the C.D.I. design, or parts of it, would fail. He might, for example, find it much more difficult to avoid interjecting his personal concepts of the domain and clientele instead of the decision-maker's concepts. In short, he might not be able to apply the methodology in the standardized, objective manner which partially defines a methodology as such.

There is a second level of screening for desirability: the comparing of the expected consequences of the work for the identifier (e.g., reputation, money, challenge--whatever they may be, but in operational terms, for the identifier as determined by himself), on the one hand, with the opportunities otherwise available to the identifier as he sees them. What seems to be involved here, in other words, is the subjectively determined opportunity cost of taking on any particular work.

I believe other researchers are working on closely related aspects of the subjective cost-benefit problem. For that reason and for the reason that the developer considers other steps in the C.D.I. methodology more crucial at the initial stages of development, the choice has been made not to develop a piece of methodology for this purpose at

this time.

Step III. Negotiate a Service Agreement.

Some kind of service agreement--not necessarily a formal, written one--is desirable as a basis for the relationship between other persons and the identifier. The process of negotiating the possible or intended dimensions of such a relationship can produce data needed by the respective parties for their decision-making. The data produced during negotiation is useful not only in deciding whether to actually do a client demand identification study but also in developing the C.D.I. design, in the event a service agreement is reached. Thus it is important that the identifier negotiate as directly as possible with the person who controls the resources which might be made available for the C.D.I. study.

The general rule of thumb for this step is that the identifier and the person with whom he is negotiating, the "negotiator," should identify, communicate to the other, and mutually agree upon the following things:

- what they want to accomplish as the result of a C.D.I. study
- the resources that will be made available and the constraints upon accomplishing those things
- a plan of action which includes any specifications necessary for proceeding further.

More specifically, the agreement should include the terms of employment, the resources which the enterprise will make available for C.D.I.,

restrictions upon the identifier's activities (e.g., he may not work with certain persons) or data (e.g., he must preserve certain confidentiality). The agreement should identify the decision-makers for whom data is desired or, alternatively, a procedure for doing so. The domains or service areas of concern might be identified, and the clientele, as well. There might be included a series of go/no go decision points concerning the sequence and actual amount of work to be performed; for example, the agreement might provide for a specific decision point for the question of moving from design into implementation. There may be a prearranged schedule of reports.

The precise dimensions of the service agreement will depend on the particular combination of enterprise and identifier; clearly, in some cases it might be very complex and written, while in other cases it might be brief, oral and subject to almost instant modification. The main thing which should be emphasized is that the agreement should incorporate the shared meanings as to what the C.D.I. is intended to accomplish, what the identifier intends to deliver, and the things that must (or must not) happen in order for the delivery to be made.

Step III. Negotiate a Service Agreement.

- A. When the "negotiator" (the person negotiating with the identifier) is an individual who is also the decision-maker for whom data is to be gathered, the following sub-steps will be followed.
 1. Identifier briefly describes the design process, including its dependence upon decision-maker cooperation and acceptance; he defines "client demand," and states the purpose and method of this negotiation procedure.

Step III. A. (Continued)

2. Identifier asks negotiator to say what field he is interested in having client demand data about.
 3. Identifier asks negotiator to say what clients --identified by individual, type or class--he has in mind.
 4. If multiple clients or multiple domains are involved, identifier asks negotiator to rank order the items three ways, using these criteria: importance of the domain or clientele, sequence of need for data, and necessity of giving at least some attention to particular clients or domains.
 5. Identifier asks negotiator for information about time, interface or other constraints upon the work the identifier might do.
 6. Identifier asks negotiator to designate the resources he will make available for C.D.I. design, including his own time, other people's time, use of materials or facilities under his control, and costs of a C.D.I. contract, if any.
 7. Identifier suggests to negotiator the terms of a possible service agreement, including estimated costs and outcomes of a C.D.I. study, the rights and responsibilities of the parties, and other considerations which seem desirable to specify in advance.
 8. Agree on terms, or drop the job.
- B. When the negotiator is not going to be the decision-maker for whom C.D.I. data is to be gathered, but is a negotiating agent for an enterprise, the sub-steps of Step III. A. will be followed with modifications.
1. Same as III. A. 1.
 2. Identifier asks negotiator to identify the decision-makers for whom client demand data is desired.

Step III. B. (Continued)

3. Identifier asks negotiator to rank order the decision-makers in terms of importance, timing of data needs and need for at least minimal attention during the study.
4. Same as III. A. 5.
5. Same as III. A. 6.
6. Same as III. A. 7.
7. Same as III. A. 8.

Instead of an agreement covering the entire C.D.I. study, the parties might wish to consider two other alternatives: (1) a preliminary contract for development of a "design for the design," or (2) a series of partial agreements covering the next two or three steps each time that one or two steps are completed. Such alternative approaches would seem to be useful in cases where the costs and benefits of a C.D.I. study cannot be predicted with a certainty which the parties might want.

Step IV. Identify Decision-makers.

It is a major premise of this methodology that if the data is going to be used, its form and substance will have to be highly sensitive to specific decision-makers. By this is meant: the criteria for using data--any data--are in the minds of people, and it is reasonable to believe that each person's criteria differ in some respects from anyone else's criteria. If the identifier wants to assure that the

data he provides will be used, one of the things which he ought to do is to try to find out what the decision-maker's criteria are. One decision-maker's criteria may be virtually the same as those of other decision-makers in the enterprise, but the identifier will not know that, nor will he know precisely what the criteria are, until he takes some set of actions to find out. Before anything else can be done, the decision-makers must be identified.

The person who specifies the decision-makers should be the person in the enterprise who controls the resources committed to C.D.I. work. This person will be called, for purposes of this methodology, the "temporary decision-maker." (This person may formerly have served as negotiator, though not necessarily.) The identifier asks the temporary decision-maker for a list of the people for whom C.D.I. data is desired. Of course, if a list of decision-makers was obtained during the negotiation of a service agreement, the identifier would not ask that a new list be produced; what he would do in that case is ascertain whether the original list was still acceptable to the employer.

Step IV. (Continued)

- A. Identifier obtains a list of "the people for whom client demand data is desired."
 1. Use the list developed during negotiation of the service agreement, if there was one developed.
 - a. Refer to the list.
 - b. Determine its current acceptability to the employer by asking the employer or the temporary decision-maker.

Step IV. A. (Continued)

2. If there is no original list, or if that one is no longer current, ask for a list.
3. Analyze the list by breaking it into one decision-maker to a line.
4. Confirm that the analysis is acceptable to the temporary decision-maker.

When developing a list of decision-makers, the identifier and temporary decision-maker should make sure that the list distinguishes between groups of people who make decisions as individuals and groups of people who make decisions as a group. A group by the latter definition would be a single entry on the list, whereas a group by the former definition is not a group for decision-making purposes and its members would each be a separate entry on the list. For groups which decide as a group, nevertheless, there should be available a roster of its component individuals, and this roster would be kept separate from the main list.

When the three sub-steps of Step IV. A. have been completed, the identifier will have a list of decision-makers which still may not be complete; for example, the temporary decision-maker may have forgotten some decision-makers for whom data otherwise would be desired, or he may have chosen to leave off the list some people who in fact are decision-makers but who didn't seem to be such from the temporary decision-maker's perspective at that moment. For subsequent steps in the methodology it may be very important to come as close as possible to the knowledge of

who all the decision-makers are from the temporary decision-maker's perspective. The identifier will next apply to the list some "tests of completeness," the object of which is to stimulate changes in the list (primarily additions) in the direction of greater completeness.

Step IV. (Continued)

- B. Identifier applies to the list some tests of completeness, asking the temporary decision-maker to modify the list accordingly, at his discretion.
 1. Review a potentially broader list.
 - a. Have the temporary decision-maker furnish a list of all persons associated with the enterprise.
 - b. Have the temporary decision-maker inspect the latter list and ask himself this question for each entry: "Might this person be a decision-maker who desires client demand data?"
 - c. Have another person--who is designated by the temporary decision-maker as having a different perspective from his--furnish a list of all persons associated with the enterprise, with a check-off of those decision-makers on the list he thinks might want client demand data for their decision-making.
 - d. Have the temporary decision-maker inspect the other person's checklist for possible changes in his own list.
 2. Review a list having a different basis: Ask the temporary decision-maker and one or more other persons to think of the most important decision-makers in the enterprise and to ask themselves, "Are those persons on the main list?"

As a result of the tests of completeness, the identifier will have a reasonably complete list of decision-makers for whom client demand data are desired by the temporary decision-maker. If the list seems to the identifier to be too long to fulfill completely, it will be necessary to determine priorities around which the C.D.I. design can be developed. There are a number of approaches which might be followed to produce a priority basis for the designs, and the identifier should suggest some of them to the temporary decision-maker, letting the temporary decision-maker choose the single or multiple basis for selecting which decision-maker to work with first, which second, and so forth to the limits of feasibility.

Step IV. (Continued)

C. Identifier obtains priority ranking of decision-makers, if list produced in IV. B. appears too long to fulfill.

1. Identifier explains to temporary decision-maker the need to prioritize the list of decision-makers.
2. Identifier identifies and explains certain criteria which might be used to prioritize the list, either singly or in combination (see following narrative rationale for definition of these criteria):
 - Importance of decision-maker to the enterprise
 - Time sequence of needs for data
 - Estimated strength of desire for C.D.I. data
 - Functional role in the organization, rank ordered by programming sequence

Step IV. C. 2. (Continued)

- Draw from list, without replacement, the one person who should have C.D.I. data if only one could have it; reiterate
 - Importance of having some attention paid
 - Accessibility
3. Identifier discusses with temporary decision-maker how the latter might decide which one or more criteria should be used for prioritizing the list.

These first three sub-steps of IV. C. serve to prepare the temporary decision-maker for the prioritizing task, which he must perform or at least oversee to the extent of approving the product of the step.

Before any priority ranking approach is applied, the identifier will explain some possible approaches:

- Importance of decision-maker to the enterprise

One way to prioritize might be to decide which decision-makers are more important to the enterprise in terms of the decisions they make; alternatively, which are more important for the decisions they ought to make (but maybe can't because of lack of C.D.I. data). The list might reflect decision-maker ranking in the formal organization or the decision-maker roles in the informal organization.

- Time sequence of needs for data

Some decision-makers may urgently need data soon because of imminent program decisions in a certain area, whereas other decision-makers who may be no less "important" can wait.

- Estimated strength of desire for C.D.I. data

If some decision-makers in the enterprise know about C.D.I. and strongly want such data, the

temporary decision-maker might choose to start with them. For one thing they would be probably the most highly motivated to fully cooperate in the study, and they might be the most tolerant of working out the "bugs" which are inevitable in any initial study with an enterprise.

- Functional role in the enterprise, rank ordered according to programming sequence

If the decision-makers can be identified by role in programming (e.g., client demand analyst, designer, financial analyst, consensual analyst, authorizer), then data could be obtained in time sequence according to the logical sequence of the programming system (e.g., client demand analyst first); in another system, perhaps a planner would be first.

- Draw from list, without replacement, the one person who should have C.D.I. data if only one could have it; reiterate

After the first person is chosen, the same question is asked of the remaining decision-makers in order to choose the second person, etc.

- Importance of having some attention paid

For various reasons--internal "politics," for example--the temporary decision-maker may find it expedient to check off the decision-makers who must have at least some attention paid to them during the C.D.I. work; this approach produces a dichotomous listing which should be used in combination with another approach.

- Accessibility

Some decision-makers may be more accessible to the identifier than others, and they could be ranked with the most accessible first; there will be some relationship between accessibility and the costs involved in working with a decision-maker.

After explaining the possible criteria for developing priorities, the identifier should discuss with the temporary decision-maker how to

choose one or a combination of approaches. Detailed procedures for doing this have not yet been designed. In the meantime, the identifier might suggest that the temporary decision-maker choose one approach to start with and see what happens, the test question being, "Is this priority order the order in which the identifier should work with these decision-makers?"

Step IV. C. (Continued)

4. Identifier and temporary decision-maker apply the chosen approach(es).
 - a. Obtain list(s).
 - b. Assign numerical rank to each decision-maker, with number 1 assigned to most important, most accessible, etc.
5. When more than one approach is chosen, merge the lists; two possible ways to merge are:
 - Add the numerical rankings for each decision-maker on all lists and use the resulting sums as the combined rank order.
 - Rank the criteria for prioritization and then create a new list in which the number 1 item from the number 1 list is first, the number 1 item from the number 2 list is second, etc.

A hypothetical example may be helpful in visualizing the process of merging several priority lists into a single priority list. Assume that for a municipal planning department, only five decision-makers have been identified for whom C.D.I. data are desired, and assume that their order of "importance," from the temporary decision-maker's

perspective, is:

Director of Planning
 Assistant Director for Current Planning
 Zoning Administrator
 Senior Planner - Current Planning
 Assistant Director for Long Range Planning

A second priority is determined, this time according to the timing of needs for C.D.I. data:

Zoning Administrator
 Senior Planner - Current Planning
 Assistant Director for Current Planning
 Director of Planning
 Assistant Director for Long Range Planning

Finally, the decision-makers are ranked according to the estimated strength of their desire for C.D.I. data:

Senior Planner - Current Planning
 Zoning Administrator
 Director of Planning
 Assistant Director for Current Planning
 Assistant Director for Long Range Planning

Each of the three lists is different except for one person. The two methods of merging the lists would be (1) to add the ranks of each decision-maker on all lists and then rank order the sums, and (2) to rank the lists (for example: 1 - Importance, 2 - Timing, and 3 - Desire) and then pick the first item from the first list, the first item from

the second list, and so forth. The individual lists and both methods of merging are shown in Table 1. The main thing to be accomplished is

<u>Decision-maker</u>	<u>1</u> <u>Imptce</u>	<u>2</u> <u>Tim'g</u>	<u>3</u> <u>Desire</u>	<u>(Sum of</u> <u>Ranks)</u>	<u>(Rank</u> <u>Lists)</u>
Director of Planning	1	4	3	(8) 3	1
Asst. Dir. for Current Planning	2	3	4	(9) 4	4
Zoning Administrator	3	1	2	(6) 1	2
Sr. Planner - Current Planning	4	2	1	(7) 2	3
Asst. Dir. for Long Range Planning	5	5	5	(15) 5	5

Table 1. The Merging of Several Priority Lists

that the temporary decision-maker approves a single priority ranking which can then be used by the identifier to begin the C.D.I. designs.

The next sub-step is also designed to ensure that the temporary decision-maker's intentions govern the C.D.I. design.

Step IV. (Continued)

- D. Identifier obtains weighted priority ranking by having temporary decision-maker allocate 100% of C.D.I. resources to priority list beginning with the top priority decision-maker and continuing until all resources are exhausted.

To use the hypothetical example again, the sum-of-the-ranks combined list might be the basis for the following allocation:

<u>Priority</u>	<u>Decision-maker</u>	<u>Percent</u>
1	Zoning Administrator	30
2	Sr. Planner - Current Planning	25
3	Director of Planning	20
4	Asst. Dir. for Current Planning	15
5	Asst. Dir. for Long Range Planning	<u>10</u>
	Total	100

The first priority decision-maker in the example is allocated much more of the resources than the fifth priority decision-maker, which is what one would expect to be the case ordinarily. The range of possible allocations is quite broad; the important thing is that they be made by or with the approval of the temporary decision-maker so that the employing enterprise's intentions govern.

Since prioritizing, as a procedure, will be used in other parts of the methodology, discussion of the methodological issues can be deferred.

Step IV. (Continued)

- E. The temporary decision-maker reviews and approves the priority ranking and weighting of decision-makers for whom C.D.I. designs are to be developed.

Thus the ranking and weighting will be from the enterprise's perspective, not the identifier's.

Step V. Identify Clients

The identifier next begins working directly with the decision-maker(s)

for whom data are to be provided. The next major step is to identify the persons--the clients--whose demands constitute data which a particular decision-maker will use in decision-making. Individual people have demands, although sometimes those individuals are members of organized groups which presumably express shared demands: for example, the National Welfare Rights Organization, the Democratic Party, and the National Rifle Association. Collectively expressed demands have meaning insofar as they in fact represent the desires of individuals; such demands are therefore verifiable by reference to the individuals on whose behalf the group demands are expressed. Whether the clientele is a set of individuals, a set of groups or some combination of the two, the decision-maker ultimately must determine. The identifier's role at this stage is to see that the clientele is identified acceptably to the decision-maker and with sufficient specificity that subsequent steps in the methodology can be performed.

Step V. Identify Clients

- A. Identifier starts with the first priority decision-maker.
- B. Identifier obtains decision-maker's list of clients.
 1. Identifier has decision-maker make a list of all the clients he can think of with whom he is concerned; list them individually or by any classifications he normally uses.
 2. Identifier has decision-maker make a list of all the client/constituents with whom he is not concerned.

Identification begins with the decision-maker for several reasons: no one is likely to have a better idea of his concerns; he is the most likely person to have thought about the clientele, to have a fairly complete conception of who they are; and ultimately the identification will have to be acceptable to him if he is going to respect the data for purposes of his decision-making. In order to define his concept of clientele, the identifier will find it useful to know which persons the decision-maker includes and which he excludes; hence, the two lists.

The decision-maker's first lists may not be complete. If the identifier were to provide data in accordance with an incomplete list without knowing how incomplete it was, then neither the identifier nor the decision-maker would know how appropriate the data were for decision-making purposes. Conceivably, some demands which the decision-maker would define as very important if he knew about them might not become known. Moreover, while it is possible to make reasonable decisions with partial C.D.I. data when one knows in what ways the data is partial, it is easy to mis-use the partial data when one doesn't know how incomplete it is. Therefore, the identifier will apply some tests of completeness.

Step V. (Continued)

C. Identifier applies tests of completeness, asking the decision-maker to modify his lists accordingly, if he chooses.

1. Identifier furnishes decision-maker with lists from other persons:

-- Lists from persons identified by decision-

maker or by temporary decision-maker as being aware of some or all of the clientele; if possible, furnish rationales for any differences from the decision-maker's lists;

- Lists developed from secondary sources such as statutes, regulations, correspondence, complaint registers, memoranda, speeches, editorials and police blotters;
 - Lists of identified clients for other similar enterprises or service areas;
 - Lists from some identified clients, indicating clients they think of.
2. Identifier furnishes decision-maker with data about people's self-identification as clients or non-clients; some possible sources:
- Survey research conducted to estimate the size and individual characteristics of self-identified clientele;
 - Every-resident canvass of an appropriate political jurisdiction;
 - Already-identified clients are contacted to determine whether they consider themselves clients.
3. Identifier asks decision-maker to think of persons who have nothing whatsoever to do with the enterprise and then to seriously consider the implications of their having nothing to do with it.

(Pieces of methodology for performing sub-step V. C. 2., client self-identification, have not been developed and it remains a "gap.") When the tests of completeness have been applied, the decision-maker's revised list should be a good approximation of the complete clientele for purposes of that decision-maker's decision-making. Additional clients

may be identified during later stages in the methodology.

In developing tests of completeness, the assumption has been made that a decision-maker is more likely to inadvertently understate the clientele than he is to overstate it. Based on that assumption, the tests of completeness emphasize extending his concept to the limits of the decision-making freedom which he can accept as his.

After the clients have been identified, if the list seems to the identifier to be too long to work with--perhaps because of resource limitations and the need to provide data to other decision-makers--then the identifier should obtain a priority ranking of the clientele from the decision-maker's perspective.

Step V. (Continued)

- D. Identifier obtains priority ranking of clients, if list obtained in prior sub-step is too long to fulfill completely.
1. Identifier explains to decision-maker the need to prioritize the list of clients.
 2. Identifier identifies and explains certain criteria which might be used to prioritize the list, either singly or in combination (see following narrative rationale for definition of these criteria):
 - Importance to decision-maker
 - Urgency of obtaining some data before others
 - Importance of paying at least some attention to individuals or groups
 - Actual or potential client support for the enterprise

- Estimated level of client dissatisfaction
 - Accessibility
 - Decision-maker doubt as to what a client's demands are
3. Identifier discusses with decision-maker how the latter might decide which one or more criteria should be used for prioritizing the list.

Since the identifier is now working with the decision-maker who will ultimately decide whether to use the data provided to him, the list and the priorities must be perceived by the decision-maker as reflecting his needs. If the identifier were to provide data which the decision-maker felt pertained to unimportant clients, he might fail to respect the C.D.I. study and therefore fail to use even that data with which he is provided. Prioritization may be a crucial element in achieving decision-maker validity, and both the identifier and the decision-maker should be aware of this condition.

Among the possible criteria for priority ordering the clients, the following might be explained by the identifier to the decision-maker:

- Importance to the decision-maker

The criterion, "importance to the decision-maker for purposes of his decision-making," is likely to have some subjective meaning for the decision-maker. The criterion might be applied by asking the decision-maker to name the most important client/constituent, putting that one first, then to name the least important, putting that one last; work up a complete priority ranking from both ends.

- Urgency of obtaining the data

The decision-maker may want data from certain clients first--perhaps because he has decisions to make with respect to them before decisions with respect to others, or perhaps one client is adversely influencing the enterprise as the decision-maker sees it.

- Importance of paying at least some attention to an individual or client group

There may be a number of clients which the decision-maker wants to attend to, or at least give the appearance of attending to; these should be indicated, probably as a dichotomous ranking, in combination with other approaches.

- Actual or potential support for the enterprise

The decision-maker may want to obtain client demand data first from those persons who actually support or potentially might support the enterprise in some way--such as making a large bequest in the case of a private university or voting for a bond issue in the case of a public hospital.

- Estimated level of client dissatisfaction

The decision-maker may be concerned initially with learning more specifically what the most dissatisfied clients want; for instance, when the city's burning, a comprehensive study of the demands of all citizens may not be the most expeditious means of putting out the fire.

- Accessibility

It may be impractical--too costly, for example--to gain access to certain clients; the judgment might be made that the easiest-to-reach clients be studied first. In doing a C.D.I. study for a state mental health program, one might not wish to begin with clients who have been judicially committed to an institution because they were deemed to be dangerous to themselves or others.

- Decision-maker doubt as to what a client's demands are

The decision-maker may be confident he knows the specific dimensions of some or many clients, and

he may therefore be much more concerned about the demands of those clients he is less confident about.

After he explains these possible approaches, the identifier should discuss with the decision-maker how the latter might choose one or more of them; a piece of methodology for doing this has not yet been developed. Pending development of procedures, the identifier might simply ask the decision-maker to pick one or more criteria which he thinks will produce a list which he would want the identifier to use in obtaining client demand data.

Step V. D. (Continued)

4. Identifier and decision-maker apply the chosen approach(es).
 - a. Obtain priority ranked list(s).
 - b. Assign numerical rank to each client, with number 1 assigned to the most important, most dissatisfied, etc.
5. When more than one approach is chosen, merge the lists; three possible ways to merge are:
 - Add the numerical rankings for each client on all lists and then place the resulting sums in numerical order.
 - Rank the prioritization criteria and then create a new list by taking the first item from the first criterion, the first item from the second criterion, etc.
 - Weight each item on each list by having decision-maker allocate "100% of his concern for these clients on this criterion," then have him weight the various criteria in the same manner; multiply

the weight of the criterion by the weight of the item; sum the products for each item; rank the sums numerically.

- E. Decision-maker reviews and approves the priority ordered and weighted list of clients and constituents.

The outcome of the foregoing procedures will be a list which the identifier can use for two purposes: (a) as a test of completeness during the next major step of the procedure and (b) as the principal guide for deciding which clients to contact, in what order, and with what emphasis. Sub-step E is required in order to assure decision-maker validity at this stage.

The next major purpose to be accomplished by the methodology is to identify the "field" within which the decision-maker wants client demand data. In other words, what is the "domain" or service area that is of concern to him for purposes of his decision-making? He may be concerned about more than one domain. He may have very specific concepts of the domain(s), or he may have very fuzzy ones. Whatever his concepts are, they represent criteria for decision-maker validity of C.D.I. data, and they must, therefore, be identified and defined as part of the C.D.I. design for that decision-maker.

Presumably, a decision-maker will use data pertaining to some definable universe; more specifically, he will use data which he believes pertains to the universe defined by his concept of domain. It is further assumed that he will fail to use data which he believes does not pertain to his domain of concern. There is another possibility, as

well: he may mis-use (in terms of his own purposes) data which he believes pertains to his domain of concern but which, in fact, does not--possibly because the data have been mis-represented or because the domain has not been defined with sufficient completeness. Thus, the decision-maker's concept of the domain of concern to him is a critical element in any C.D.I. design for that decision-maker.

There are some other assumptions underlying the methodology at this point. One of them is that the decision-maker's concept of domain may inadvertently limit his perceived degrees of freedom in decision-making and therefore inadvertently limit the data which are perceived as valid. Another one of them is that the decision-maker's concept of domain can be modified by operation of the methodology. Taken together, these assumptions have led to sub-steps which test the completeness of the definitions--always as finally determined by the decision-maker.

The methodology emphasizes boundary definition (in other words, delimitation) of the domain of concern rather than what might be called a fully operationalized definition. The reason for the boundary emphasis is that boundaries will be used to limit the search for demand data from the clientele; but if a complete definition of the domain were developed by the decision-maker, then presumably he would not have need of any demand data from client/constituents! Conceivably, some decision-makers may define their concept so completely at this point that they will choose not to pursue any further the obtaining of client demand data; if so (and if the tests of completeness have been applied), the identifier would accede, reporting the fact to the temporary decision-

maker if required to do so under the service agreement. The identifier's application of this step will require him to make some judgments in the absence of detailed procedures--judgments about how far to pursue the tests of completeness. The objectives are: (a) to broaden (or to narrow, although that is less likely to be necessary) the concept of domain to whatever definition the decision-maker accepts as being reasonably complete; (b) to define the boundaries of the service area(s); and (c) to avoid premature closure on the definition. By "premature closure" is meant the operationalization of the domain to the extent that client/constituents are prevented, in effect, from expressing what they really want. Procedures have not yet been developed for handling this "premature closure" problem.

Step VI. Identify and Define the Domain of Concern

- A. Identifier obtains decision-maker's current concept of the domain which is of concern to the decision-maker for purposes of his decision-making.
 1. Identifier asks decision-maker to describe the service area(s) of concern to him:
"What service area(s) do you make decisions about; and what service area(s) do you want to make decisions about?"
 2. Identifier asks decision-maker, "For each service area you have described, is there a larger area of which it is a part? If so, describe the larger area."
 3. Identifier asks decision-maker, "For each of the larger areas you have described, is there a still-larger area of which it is a part? If so, describe the still-larger area."
 4. Identifier asks decision-maker to provide a

term of designation for each area described in sub-steps 1-3.

5. Identifier draws for decision-maker review and approval a Venn-type diagram depicting the areas, using the names given in sub-step 4. (See Figure 2)
6. Identifier asks decision-maker to consider for each service area ("X") and for each related larger area ("Y") and still-larger area ("Z") the following question: "Is there any component of Z that is not X and not Y and about which you make decisions or want to make decisions? If so, repeat sub-steps 2-6 for that component."
7. Identifier asks decision-maker, "Is there any component of Y that is not X and about which you make decisions or want to make decisions? If so, repeat steps 2-7 for that component."
8. Identifier asks decision-maker to identify all service areas about which he (the decision-maker) desires client demand data.

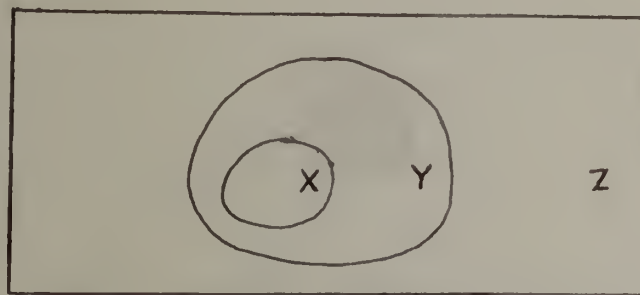


Figure 2 . A Diagram of Domains of Concern to the Decision-maker. (See Steps VI. A. 5 & 6.)

The foregoing procedures are intended to stimulate the decision-maker to seriously consider what service areas are really of concern to him rather than simply name the first ones which come to mind. The eight sub-steps may produce a definition which is closer to the decision-maker's desires and to his actual degrees of freedom in using client demand data.

Sub-steps 1-8 are based on the assumption that the decision-maker's initial concept is narrower than he would choose if he thought about it. Similar procedures have not been developed--but can be developed later--for the possibility that the decision-maker's initial concept is too broad; such procedures would involve breaking down the initial concept into its component parts and then breaking down the components into sub-components, thus leading the decision-maker into narrower domains.

The service area or areas identified in sub-step 8 may still not be complete for purposes of the decision-maker's decision-making, and some tests of completeness are applied next:

Step VI. (Continued)

- B. Identifier applies tests of completeness, asking the decision-maker to modify his concept of the domain(s) of concern to him, if he wishes to do so.
 - 1. Identifier shows decision-maker some descriptions of service areas as identified by other persons (such as clients, other decision-makers, and decision-makers in other enterprises).

In order to apply the first test of completeness to the first decision-

maker that he works with, the identifier will have to either (or both) furnish other persons' descriptions from other C.D.I. studies which the identifier has done or obtain descriptions as a part of the current C.D.I. work. Procedures have not yet been developed for the latter, with respect to the first decision-maker. However, it should be noted that for every decision-maker in an enterprise after the first decision-maker, the identifier will have available at least the descriptions produced by the ones he has already worked with. The identifier may find it advisable in some C.D.I. work to put several decision-makers through Steps V and VI of the methodology almost simultaneously in order to use the concepts of each as tests of completeness for the concepts of the others.

The second test of completeness uses the products of Step V:

Step VI. B. (Continued)

2. Identifier asks decision-maker to review the client list produced by Step V and to match the items on that list with the service area(s) identified thus far in Step VI.
 - a. Decision-maker reviews client list and matches items to the identified service area(s), including multiple matches, if appropriate.
 - b. Decision-maker considers results of matching:
 - (1) If there is a complete match and the decision-maker thinks of no other clients or service areas, then proceed to sub-step B. 3.
 - (2) If there is a client for which there

Step VI. B. 2. b. (2) (Continued)

is not a matching service area, then is there a service area missing, is there a mis-defined service area, or is the client really not a client of concern to the decision-maker?

(3) If there is a service area for which there is not a matching client, then is there a client missing or is the service area really not of concern to the decision-maker?

(4) If the decision-maker thinks of additional clients, service areas, or thinks of revised definitions, then does he want to make changes accordingly?

c. Decision-maker considers revising priority order of list, if changes to the list are made during the preceding sub-step b.

This test of completeness thus applies not only to the domains but also to the clients; it both uses the products of Step V of the methodology and provides an additional test for potentially revising those products, based on data generated by the subsequent major step. Such multiple use of interim products is believed to add to the power of the C.D.I. design, while conserving design resources. As a further example of such parsimony, the matching of clients and domains from the perspective of the decision-maker not only tests completeness but it forms an essential component of the C.D.I. design; the identifier will use the linkages as frameworks for obtaining client demand data (as will be shown during discussion of the next major step, Step VII.).

The third test of completeness under Step VI is least likely to

produce additional changes; on the other hand, it need not require much time or resources:

Step VI. B. (Continued)

3. Identifier asks decision-maker to think of other service areas that are parts of Y (see sub-steps A. 6. and A. 7. for the referent of "Y") and to seriously consider the implications of those parts not being identified by him as areas about which he wants client demand data.

This test may turn up some aspects the decision-maker had not previously thought of, which might suggest he modify his definitions.

After the tests of completeness the decision-maker should again be asked to confirm his concept of the domain(s) of concern to him, the purpose of this request being to maintain decision-maker validity. The concept of domain is revised if the decision-maker desires:

Step VI. (Continued)

- C. Identifier asks decision-maker to review his concept of the domain(s) of concern to him, make any revisions he wishes and then confirm the definition for further use.

As a result of the foregoing steps, the identification and definition of domains will be approximately complete at this point in time. The next consideration is the order in which to seek data about client demands within the domains; closely related to sequence, the amount of effort to be expended must also be considered when there are more than

one domain and not enough C.D.I. resources to provide complete data for all.

Step VI. (Continued)

- D. When there are more than one domain, or more than one part to a domain, identifier obtains from decision-maker a priority ordering and weighting of the domains or parts. (Follow Step V. D., substituting "domain" for "client.")
- E. Decision-maker reviews and approves the priority ordered and weighted concept of domain(s) of concern to him.

The purpose of sub-step E is to continue the assurance of decision-maker validity.

Step VII. Identify Client Demands

The purpose of this Step is to obtain the client's own concept of his wants in the domain of concern to the decision-maker. The expected product of the Step is a list of unitary demand statements in the client's own words, priority ordered and weighted as determined by the client. Less than a 100% sample of the clientele may be appropriate, depending on available resources and/or decision-maker priorities.

The client's concept is whatever it is--not necessarily what someone else thinks it is. It is reasonable to assume that unless the concept is fully operationalized it is hardly ever exactly what anyone else thinks it is. To begin finding out what the client really wants, as

determined by the client, one would want to avoid imposing limitations on the client's freedom to express his conception beyond those limitations inherent in human communication and those which are deliberate aspects of the methodology. A corollary would be that the methodology should attempt to elicit the client's concept of his wants in the completeness and in the detail that the client uses to make decisions with respect to satisfying his wants. Another way of stating this point regarding limitations is that whatever procedures are followed in the methodology, their intended outcomes must relate to the purpose of the methodology; limitations which cannot be justified in terms of the purpose therefore should be avoided. As one illustration of the distinctions which should be seriously examined, consider the hypothetical survey question, "What are the most important problems facing this city today, in your opinion," followed by a dozen choices of "issues" including "crime in the streets." When one respondent picks the latter issue, he may be thinking, "I want my home protected from burglary and my children free from addiction," whereas another respondent may be thinking, "I want to keep my neighborhood safe and white," and still another may be thinking, "Stop the drug pushers, but also stop the poverty and racism that contribute to crime in this community." The general nature of the question, like the "yes" or "no" of an election, washes out the important differences of meaning among individual people. When one chooses to ask a general question, it should be for a reason such as insufficient resources or known commonality of meaning, rather than because, say, one had not conceptualized permitting the client the broad freedom to express

himself. C.D.I. methodology attempts to make such choices a matter of deliberation rather than of default by encouraging the client to start broadly (within a domain) and allowing him to choose where and by what criteria his definition of wants should be narrowed. The domain boundaries, of course, will be a limitation--but that limitation is decided by the decision-maker in terms of what data he will in fact use for decision-making, so it has a rationale appropriate to the purpose of the methodology.

Step VII. (Continued)

- A. Choose a domain and client to work with first (next).
 1. When top priority domain and top priority client are not matched, identifier asks decision-maker to choose whether the study should begin with domain number 1 or client number 1.
 2. Where the top priority domain and the top priority client are matched, identifier begins with them.
 3. When client is in fact many persons acting as individuals and too numerous to work with, then identifier designs and uses a representative sampling procedure for selection of individuals and a random selection procedure to pick the first (next) client to work with.

Since one cannot begin simultaneously with all clients and all domains--at least where there are many of either and resources are too limited--one should begin with the most important client of the most important domain, from the perspective of the decision-maker. Data about that

combination of domain and client is the most likely to be used by the decision-maker.

Step VII. (Continued)

- B. Identifier establishes cooperative contact with the first (next) client.
 - 1. Identifier determines how to cooperatively establish contact (for example, in person, by letter, by telephone, through an intermediary), including the content of what will be communicated to the client.
 - 2. Identifier makes contact and secures client cooperation.
 - 3. If sub-steps B. 1. or B. 2. should fail, identifier reports that condition to the decision-maker and repeats Step VII. A. to determine next client.

Establishing cooperative contact with the client can be a troublesome task, and the deceptive simplicity of the above sub-steps masks a gap in the methodology. Client cooperation is crucial to the success of a C.D.I. study, yet there are many conceivable applications of the methodology where establishing a cooperative relationship will be problematic. To cite one of the potential problems, ethnic differences between identifier and client could conceivably be perceived as insurmountable barriers to cooperation by either or both persons. Different approaches therefore may be needed for different applications. Rather than develop some of these at this time, the developer has chosen to state sub-step B at a simple level that seems adequate for the field test, which will involve a relatively simple situation in which establishing (or maintaining)

cooperative contact with the client is not expected to be a problem.

Step VII. (Continued)

- C. Identifier identifies client demands in the domain of concern to the decision-maker.

This sub-step has the purpose of obtaining from the client his concept of wants--that is, his wants or demands as determined by him. Limiting his concept to the domain of concern to the decision-maker seems reasonable in terms of utility of the data; for example, a decision-maker who is concerned about communicable disease control probably has no use for data about clients' desires in a local transportation domain. It seems appropriate to note that the client's wants in any domain represent a sub-set of what he wants from life. For a general purpose jurisdiction such as a state or national government, identifying what the client wants from life may be the most important thing to accomplish by way of C.D.I. research. In the absence of that total context, C.D.I. data for a given domain will lack the relative weight the client places on the data in his total life. However, it does not seem reasonable to try to obtain total demand data in connection with a public service of considerably less comprehensiveness than, say, the political system of the United States; and few public service decision-makers perceive that they are as directly concerned with such comprehensive domains as, say, the President of the United States might be. Therefore the methodology at this point in time chooses to limit the client to the domain specified by the decision-maker.

Step VII. C. (Continued)

1. Identifier provides the client with the decision-maker's definition of the domain.

The client must have somewhere to start, so the identifier provides the decision-maker's definition as a frame of reference. This sub-step, too, could be troublesome; if the client does not understand the domain definition in the same way that the decision-maker does, then the client may respond with his wants for what is, in effect, some other domain. The field test of the methodology may show a need to more fully operationalize the decision-maker's concept of the domain before this sub-step can provide a valid and consistent boundary for identifying client demands. The reason why the present methodology avoids operationalizing the domain definition is to avoid leading the decision-maker to the conclusion that with a fully operationalized concept of the domain he would have no need for finding out what the clients really want. The danger of that kind of conceptual closure is that the decision-maker could lock himself into his own concept while his public service enterprise fails to respond to the needs of its clientele, as determined by them. In other words, the danger is that he would substitute a limited concept of the "will" of the people" for the people's concepts of their will.

Step VII. C. (Continued)

2. Identifier asks the client to imagine the domain as he really desires it to be.

Step VII. C. (Continued)

3. Identifier asks the client to describe the things he wants to have happen to himself or to others (note whom) in his conception of the domain's desirable state.
 - a. Identifier asks the client to write down his description, or
 - b. Identifier makes a recording of what the client says.
4. Identifier asks the client to repeat sub-steps 2 and 3 for any separate time-frames which may seem logical (for example, one year, five years, ten years), emphasizing that the client may wish to focus on his desired state in case that is different from his ideal or perfect state. Separate descriptions may result.
5. Identifier analyzes each description into unitary demands.
 - a. Identifier separates each description into unitary demand statements, one statement per line.
 - b. Identifier asks the client to modify or confirm the demand statements as his.

By the end of sub-step 5, the identifier will have identified most of the client's wants, but the list(s) may not be complete; as with other parts of the methodology, the identifier will want to apply some tests of completeness next:

Step VII. (Continued)

- D. Identifier tests the completeness of each of the client's list of demand statements, asking the client to modify his if he chooses.

Step VII. D. (Continued)

1. Identifier provides the client with other people's demand statements.
2. Identifier provides the client with secondary sources of his demands, such as his letter of complaint to the decision-maker.
3. Identifier does a Force-field Analysis with the client for each of his demands, asking the client to check whether his list includes strengthening the specific "driving forces" and weakening the "restraining forces" or whether thinking about them suggests other demands he has.
4. Identifier asks client to modify or confirm the list(s)

At the conclusion of sub-step D, the identifier will have nearly all of the client's demands in the domain of concern to the decision-maker.

Step VII. (Continued)

- E. Identifier obtains client's priorities for his demands.
1. Identifier asks the client to put the items on each list into their order of importance to him: the most important first, the next most important second, and so on.
 2. Identifier asks the client to put the items on each list into the time sequence in which he would like to have the demands worked on.
 3. Identifier asks the client to say, if he can, how he would allocate 100% of "importance" to the ranking in 1. above (for example, 30% to the most important item, 20% to the second, 15% to the third, and so on, until 100% is allocated).

Step VII. E. (Continued)

4. Identifier asks the client to put the items in an order based on his answers to the question, "If you could tell these demands to _____ (give the name or title of the decision-maker for whom C.D.I. data are being gathered) in such a way that he would know exactly what you want, which one would you choose to tell him first (next)?" Identifier advises the client to stop at any point where he feels it is not important to tell the decision-maker "exactly" what the client wants.

Sub-step E has two purposes: first, to direct the identifier where to begin the next major step of the methodology (Step VII. Operationalize Client Demands) and, second, to provide priority data to the decision-maker concerning the client's demands (based on the as yet untested assumption that a decision-maker will want such priority data). Sub-step E. 4. is intended to elicit priority choices that are valid for the client as he imagines the direct communication of his demands because the C.D.I. methodology has as one of its purposes the communication of the client's demands in terms and with priorities that are valid from the client's perspective. Since the C.D.I. study serves as a substitute for direct, personal communication between client and decision-maker, the methodology seeks to maintain validity for each in terms of their intentions and concepts.

Step VIII. Operationalize Client Demands.

It is reasonable to assume that many, if not all, of the demands recorded

under Step VII will have been stated in ambiguous language. The greater the ambiguity, the greater the likelihood of miscommunication between client and decision-maker. The methodology therefore includes procedures intended to reduce ambiguity, and Step VIII represents a set of such procedures.

The problem of reducing ambiguity is not merely one of finding more precise terms--it would be easy for the identifier or the decision-maker to substitute a more standardized terminology in place of whatever language the client will have used. The important dimension of the problem is how to reduce ambiguity while maintaining client validity. After all, it is the client's concepts that we are attempting to communicate through C.D.I. research, not someone else's interpretation of the client's concepts. The obverse of the client validity dimension is the additional requirement that the demands be expressed unambiguously from the perspective of the decision-maker, too; in other words, the communication must provide decision-maker validity.

With the intention of reducing ambiguity while providing both client and decision-maker validity, Step VIII provides for the systematic translation of the client's demand statements into their operational definitions; the demands become defined in terms of directly observable behaviors or states. In fully operationalized form, the demands will have shared meaning for both client and decision-maker.

Step VIII. (Continued)

- A. Identifier tests for operational definition of demand statements.

Step VIII. A. (Continued)

1. For the first item produced under Step VII. E. 4. ("What would you choose to tell the decision-maker first?"), identifier determines whether it is stated in terms of directly observable behaviors or states.

If a demand is already fully operationalized, then the identifier will not have to apply many of the procedures of Step VIII.

Having identified the need for a test of operationalization, the developer of the methodology acknowledges that the following specifications for testing leave something to be desired. Even if successful in the initial field test, these sub-steps probably will require attention early in the further development of the methodology.

Step VIII. A. 1. (Continued)

- a. Identifier asks the client, "If you were to send me (the identifier) somewhere to see if your demand was being met, do you think I would come back with exactly the same information that you would if you were to look, yourself?"
- b. Identifier repeats a., substituting the decision-maker's name or title in place of "me."
2. If the answers to both 1. a. and 1. b. are "Yes," then identifier proceeds to Step IX, without doing the remaining sub-steps of Step VIII.

The assumption here is that in response to the hypothetical questions, the client himself will determine whether the demand is fully operationalized. If the client does not expect other people (in particular, the

identifier and the decision-maker) to understand his demand the way he intends it, then for purposes of this methodology it is not operationalized and the remaining procedures of Step VIII will apply. The identifier has been chosen to be the initial referent because his physical presence makes the question more concrete and because it might be possible to actually test the implication of the answer, if the identifier or client wish to. The decision-maker is made a referent because he is the intended recipient of the data; he is mentioned second in order to reduce any negative associations which the client may have toward him; it is felt the client will be more likely to meet the intent of these sub-steps if he has been asked to think of the identifier first. Another alternative would be to ask the client to think of someone else he knows and then answer 1. a. with reference to that person. The danger in the latter alternative is that it may be a person whom the client knows so well that the client may unconsciously assume interpersonal knowledge not included in the demand statement. On the other hand, if this alternative were used in conjunction with the other questions, there might be a discrepancy highlighted which subsequently would help operationalize the concept. Yet another alternative would be to have the client imagine sending someone he didn't know at all to look for the demand being met. The various possibilities may need to be field tested separately if these sub-steps should fail as presented above.

Presumably some other "objective" criteria for determining whether the demands are fully operationalized could be applied; to be consistent with the rest of the methodology, however, any such criteria must be

genuinely accepted by the client before the remaining sub-steps of Step VIII. are undertaken.

Step VIII.A. (Continued)

3. Identifier repeats sub-steps 1. and 2. for each demand on the list produced under Step VII. E. 4.

Repetition of sub-steps 1. and 2. will produce information for deciding whether some of the items need further operationalization, resources allowing, and if so, which one to work on next: the highest priority demand which the client says is not sufficiently specific for the decision-maker (Step VIII. A.L.B.).

Step VIII. (Continued)

- B. Identifier obtains client operationalization of demands.
 1. Identifier starts with the highest priority demand which is not fully operationalized and which is a demand of the highest priority client of the highest priority domain with which the decision-maker is concerned, according to him.
 2. If the client is in fact a number of persons acting as individuals and too numerous to work with individually, then the identifier designs and uses a representative sampling procedure for selection of individuals in relation to the steps of the operationalization procedure, e.g., different sub-samples can do different steps.

Using the priorities of the decision-maker, the identifier can continue

to reasonably assure that the data produced in the C.D.I. study will be data the decision-maker will use. Sampling of clients becomes advisable when the costs of a 100 percent survey are prohibitive or when resources can be better utilized for other clients or domains, depending on the decision-maker's priorities. For purposes of the methodology at this point in time, no procedures have been specified for making such a determination and thus a gap exists. The gap, however, is felt to be within the state-of-the-art of sampling methodology, and, therefore, probably not difficult to fill for applications more complicated than the field test will be.

Complete operationalization of many demands can be a complex, long process. Consequently, in most ordinary applications of C.D.I. methodology some choices of breadth versus depth will have to be made. Breadth of operationalization refers to partial operationalization of most of the demands, whereas depth of operationalization refers to approximately full operationalization of a small fraction of the demands. Of course, when the number of demands is small to begin with, it may be possible within that context to achieve both breadth and depth:

Step VIII. B. (Continued)

3. Identifier determines whether client should attempt to operationalize all his demands to some extent (breadth) or to operationalize some demands fully (depth), if it appears to the identifier that not all demands can be operationalized fully.
 - a. If the number of demands is ten or more, identifier makes a determination in

Step VIII. B. 3. a. (Continued)

favor of breadth; ask client to operationalize all demands to at least the first level of breakdown.

- b. If the number of demands is less than five, identifier makes a determination in favor of depth; ask client to operationalize fully at least the first demand, and to take the others only to level 1 breakdown.
- c. If the number of demands is five or more, but less than ten, identifier makes determination in favor of combination of depth and breadth; ask client to operationalize fully at least the first priority demand, and to take the others to level 2 breakdown.

The rules for choosing among breadth and depth considerations should be regarded as only first approximations; further development of the methodology--perhaps even during the field test, it was felt--will probably require more sophisticated procedures.

Step VIII. B. (Continued)

- 4. Identifier asks the client to operationalize his (next) highest priority demand, following the steps of Hutchinson's Method for Operationalizing a Fuzzy Concept (Hutchinson and Benedict, 1970; Coffing *et al.*, 1971)

C.D.I. methodology, at this point in the procedural sequence, requires a set of procedures that can, when applied by the identifier to the client with respect to his demands, produce a set of attributes which the client will accept as components of what he means by the rhetoric in which the

demand is expressed. The Hutchinson Method of Operationalizing a Fuzzy Concept appears capable of doing what C.D.I. methodology requires (for methodological research on the Operationalization of Fuzzy Concepts, see Jones, 1971; for a rationale and description of the methodology, see Hutchinson and Benedict, 1970; for a self-instructional learning module on the methodology, see Coffing et al., 1971).

Step VIII. B. 4. (Continued)

- a. Identifier asks the client to imagine a situation, a hypothetical situation, in which whatever he is demanding, in this particular demand, is fully present--it's fully there in the situation; then identifier asks the client to write down the things he observes in the situation that tell him that it's fully there.
- b. Identifier asks the client to imagine a situation, a hypothetical situation, in which whatever he is demanding, in this particular demand, is completely absent --it's not there in the situation; then identifier has the client write down the things he observes in the situation that tell him it's not there.
- c. Identifier provides the client with at least one other person's responses to a. and b., asking the client to examine them and to make any changes in his own list that the other person's responses might suggest.
- d. Identifier asks the client to re-examine his original two hypothetical situations, seriously re-considering the things he observed but didn't write down before; if any of those things are part of what he means by the demand, he should add them to what he has written.

Step VIII. B. 4. (Continued)

- e. Identifier asks the client to think of things that have nothing to do with his demand and to seriously consider whether or not they do; if he thinks of anything that does relate to what he means by the demand, then he should write those things down, too.
- f. Identifier tests the observability of what the client has written.
 - (1) Identifier analyzes into unitary statements the material which the client has written.
 - (2) Identifier verifies the analysis from the client's perspective, making changes the client wants.
 - (3) Identifier asks the client to say for each item whether it is a directly observable behavior, a directly observable state, or neither; or
 - (4) Identifier asks the decision-maker and client to compare their perceptions of dimensions which the client calls "observable;" or
 - (5) Identifier and client compare their perceptions as in (4); or
 - (6) Identifier asks client to imagine the decision-maker and then to determine whether he (the client) thinks the decision-maker would agree on observability; or
 - (7) Identifier asks a person other than client, decision-maker or identifier to compare his (the person's) perceptions of observability with the client's; or
 - (8) Identifier asks the client to ask himself for each item, "If I sent

Step VII. B. 4. f. (8) (Continued)

someone to find out if this thing were happening, would he come back with the same information that I would get if I went myself?"

- g. For each item which is not observable as determined in the above test(s), if the client is willing then he should continue to break those items down by repeating sub-steps a. through f. in accordance with the previous choices on breadth and depth (Step VIII. B. 3.).

The product of the preceding steps is intended to be a set of dimensions or attributes of the client's demands, expressed in terms which, in their direct observability, are understandable by the decision-maker with minimal loss of the client's meaning. Next, this client demand data must be reported to the decision-maker.

Step IX. Report Operationalized Demands to the Decision-Maker.

- A. Identifier organizes the data for purposes of reporting to each decision-maker.
 1. Identifier organizes the operationalized (perhaps partially operationalized) dimensions step-wise by
 - a. Decision-maker, and by
 - b. Client, according to the decision-maker's priorities, and by
 - c. Domain, according to the decision-maker's priorities, and by
 - d. Demand, according to the client's priorities.

Step IX. (Continued)

- B. Identifier describes the methods used in the study.
- C. Identifier identifies and discusses limitations of the data.
- D. Identifier produces report(s).
- E. Identifier delivers report(s) to the decision-maker.

As the foregoing steps suggest, the study's results at a point in time need to be reported to the decision-maker in a manner consistent with the decision-maker's concerns and priorities. Moreover, because the resources available for C.D.I. work normally will not permit full operationalization of all demands of all clients for all domains of concern to the decision-maker, the identifier must be careful to point out to the decision-maker the limitations of the data that is being reported. And the decision-maker should be reminded of the methods used, to which he has previously agreed. The reporting of methods and the definition of limitations together help to establish for the decision-maker the extent of validity which the data should have for him. Thus, the report should be constructed to maximize the utility of the data in the decision-maker's terms and to avoid the decision-maker's inadvertent mis-use of what he is given. Multiple reports over some period of time may be scheduled in any given C.D.I. study.

Step X. Re-identify and Redefine, As Needed.

The methodology should provide for continuing sensitivity to changing

decision-maker concerns and priorities as well as to changing client demands. The C.D.I. design should remain current in terms of (a) the identity and order of decision-makers for which the temporary decision-maker desires C.D.I. services, (b) the identity and order of clients of concern to the decision-maker(s), the identity and definition of domain(s) of concern to the decision-maker(s), and the identity and definition of client demands within domain(s).

There is some reason to believe that Step X should be incorporated into the following Steps--Step XI. Evaluation and Step XII. Revision--but for purposes of Draft I, the following sub-steps were developed prior to conceptualization of the Evaluation and Revision procedures.

Step X. (Continued)

- A. After initial reports to at least some decision-makers, identifier asks temporary decision-maker to review temporary decision-maker's priorities for decision-makers.
 - 1. Advise temporary decision-maker of identifier's intent to reflect temporary decision-maker's current priorities as much as possible.
 - 2. By some criterion agreed between temporary decision-maker and identifier, they determine whether revision should be considered at all; if not, go to next Step.
 - 3. If yes, then identifier obtains confirmation or revision of temporary decision-maker's priorities for decision-makers.
 - a. Identifier advises temporary decision-maker of potential consequences of confirmation and revision, for example:

Step X. A. 3. a. (Continued)

- If there have been no real changes, confirmation means smooth transition to next sub-step.
 - If there have been some changes and he does not say what they are, then confirmation of original list may have negative effect on the enterprise.
 - If there have been changes and the priorities are explicitly revised, the logistics of the study may preclude immediate compliance by identifier, may increase costs or decrease resources available for some parts of the designs; but on the other hand the revisions may have positive effects on the enterprise in view of current goals and intentions of the contract decision-maker.
- b. Identifier obtains temporary decision-maker's confirmation or revisions.
4. Identifier reviews priority-ordered list for implications for C.D.I. design.
- B. For each decision-maker in turn, identifier confirms or revises the criteria of decision-maker validity.
1. Identifier advises decision-maker of identifier's intention to reflect decision-maker's current concerns and priorities as much as possible.
 2. By some criterion agreed between decision-maker and identifier, they determine whether revision should be considered; if not, go to next decision-maker; if no more decision-makers, go to next Step.
 3. If yes, identifier applies tests of completeness with respect to decision-maker's concepts of clientele and domain.

Step X. B. 3. (Continued)

- a. Identifier shows decision-maker his priority-ordered list of clients, his concepts of domain and his concepts of relationships between clients and domains; identifier asks him if he thinks of anything he might want to change now.
- b. Identifier advises decision-maker as was done for contract decision-maker under sub-step A. 3. a., above.
- c. Identifier obtains decision-maker's confirmation or revisions.
4. Identifier reviews results of 3. for implications for C.D.I. design.
5. Identifier does sub-steps B. 1-4 for next decision-maker; if none, go to next Step.

Next, the methodology should provide the identifier with data he can use for decision-making with respect to the C.D.I. design; he needs to ascertain the effectiveness of the C.D.I. design in terms of the things it is intended to accomplish. Therefore, the next major element of the methodology is:

Step XI. Evaluate the Client Demand Identification Design.

At this early stage of methodological development, it seems reasonable to observe a C.D.I. design in terms of three criteria: completeness, focus and efficiency. Completeness represents the extent to which the C.D.I. design produces all the client demand data a decision-maker needs, according to him. Focus represents the correlation between data provided

and the decision-maker's decision priorities when the data are less than complete. Efficiency represents the extent to which all the provided data are used in decision-making by the decision-maker for whom it is intended. (For discussion of these three criteria in the context of providing data for decision-making, see Hutchinson, 1972 .) Because the developer wants the identifier to consider data for the purpose of improving the design, the following procedures are stated in terms of in-completeness, lack of focus, and inefficiency.

Step XI. (Continued)

A. Identifier determines incompleteness of the C.D.I. design.

1. Identifier identifies decisions made in the domain of concern.
 - a. Identifier asks decision-maker to maintain log of his decisions in the domain and the data of any kind he uses to make them; or
 - b. Identifier asks the decision-maker to recall his decisions in the domain and the data of any kind he used to make them; make a list of the decisions and data used.
 - c. Identifier asks the decision-maker to make a list of the decisions and the data used for each.
 - d. Identifier asks the decision-maker to approve the list, making any corrections he observes to be necessary prior to testing the list for completeness.
2. Identifier tests the completeness of the list of decisions and data.

Step XI. A. 2. (Continued)

- a. Identifier provides the decision-maker with other persons' lists of decisions they think he has made in the domain and of data they think he has used with respect to each decision.
- b. Identifier provides the decision-maker with records of the enterprise, designated by the decision-maker, that may indicate decisions he has made and data he has used.
- c. Identifier asks the decision-maker to review the reported C.D.I. data, noting which data he used and for each datum used asking himself, "What decision(s) did I make with this datum?"
- d. Identifier asks the decision-maker to consider the test of completeness material and to modify his list if the materials suggest changes to him.
- e. Identifier asks the decision-maker to approve the list, making any final corrections he observes to be necessary.

Sub-steps XI. A. 1. and 2. are intended to provide the identifier with basic data relating to the purpose of providing client demand data for decision-making: what decisions were made in the domain and what data of any kind were used in making them, from the decision-maker's perspective. The list produced in these sub-steps will be used by the identifier in relation to all three criteria, but for the criteria of completeness and focus the identifier must obtain some additional information from the decision-maker, as follows:

Step XI. A. (Continued)

3. Identifier identifies unmet needs for C.D.I. data according to the decision-maker.
 - a. Identifier analyzes the list to determine the number of decisions for which C.D.I. data were used and the number of decisions for which C.D.I. data were not used.
 - b. For each decision for which C.D.I. data were not used, identifier asks the decision-maker whether he wanted to use any C.D.I. data; if he says he did want to use C.D.I. data, place an "X" beside the decision.
 - c. Identifier counts and records the number of decisions for which the decision-maker did not use C.D.I. data but wanted to.

Step XI. A. 3. provides the identifier with a crude measure of the decision-maker's unmet needs for C.D.I. data: the number of decisions for which the decision-maker wanted to use C.D.I. data but didn't. By adding that number to the number of decisions for which C.D.I. data were used and then dividing the former number by the sum of the two numbers, the identifier can calculate incompleteness:

Step XI. A. (Continued)

4. Identifier calculates the percentage of incompleteness.
 - a. Identifier sums the number of decisions for which C.D.I. data were used (from 3. a.) and the number of decisions for which the decision-maker did not use

Step XI. A. 4. a. (Continued)

C.D.I. data but wanted to (from 3. c.).

- b. Identifier divides the number of decisions for which the decision-maker did not use C.D.I. data but wanted to (from 3. c.) by the sum from 4. a.; he then multiplies the result by 100% to produce the percentage of incompleteness.

The calculated percentage of incompleteness can be used by the identifier to evaluate changes in completeness for any one decision-maker across separate reports of C.D.I. data to that decision-maker. Moreover, it can provide a basis for comparison across decision-makers such that the identifier can report to the temporary decision-maker the various degrees of incompleteness so the temporary decision-maker can consider whether he wants to re-allocate resources for subsequent C.D.I. work. For example, the temporary decision-maker may want to allocate additional resources to reducing the incompleteness of C.D.I. data for the highest priority decision-makers.

The procedures for measuring incompleteness are considered crude at this stage of development. One gap in them is the omission of procedures for identifying the extent to which C.D.I. data were inadequate even for the decisions for which some C.D.I. data were used. The decision-maker may have used some C.D.I. data, but he may also have wanted more data than he was provided, for example. Another gap is the omission of procedures for determining, for the decisions for which C.D.I. data were not used but were desired, what kinds of C.D.I. data and from whom the decision-maker wanted data. These gaps should be filled in the next

phase of methodological development.

The next criterion for which the identifier applies some procedures is the criterion of focus, or the correlation between the decision-maker's decision priorities and the C.D.I. data provided by the design. The focus criterion is appropriate whenever the C.D.I. design is determined to be at all incomplete (from Step XI. A. 4. b.). The question here is, are the C.D.I. data being used for the decision-maker's more important decisions rather than for his more trivial decisions, according to him? The following procedures are designed to produce information regarding lack of focus:

Step XI. (Continued)

- B. Identifier determines lack of focus of the C.D.I. design.
 1. Identifier identifies the decision-maker's priorities for his decisions by asking him to place in order of importance all the decisions for which he used C.D.I. data (from A. 3. a.) together with all decisions for which he did not use C.D.I. data but wanted to (from A. 3. b., as designated by "X's").
 2. Identifier tests the completeness of the prioritization.
 - a. Identifier provides the decision-maker with another prioritization obtained from a person designated by the decision-maker.
 - b. Identifier asks the decision-maker to consider the test of completeness material and to modify his prioritization if the material suggests any changes to him.
 - c. Identifier asks the decision-maker to approve the final prioritization, making

Step XI. B. 2. c. (Continued)

any final corrections he observes to be necessary

Priority ranking of the decisions introduces into the C.D.I. evaluation the decision-maker's values, retrospectively described (if he is recalling his decisions) or historically recorded (if he is working with a log of decisions for which he may have indicated contemporaneous priority information). However, the values can be assumed to be current in the sense that the decision-maker is currently approving the ranking, presumably from his current state of mind. A limitation in this ranking procedure is that the prioritization is done as a particular point in time and cannot be said to have been valid for any prior period--but then, the identifier always faces this limitation, from initial design work through evaluation and subsequent revision.

Step XI. B. (Continued)

3. Identifier completes the following matrix, where \underline{i} = the percentage of incompleteness from A. 4. b., with the number of decisions appropriate for each cell:

	C.D.I. Data Used	C.D.I. Data Not Used
For the most important 100% minus \underline{i} decisions		
For the least important \underline{i} decisions		

Step XI. B. 3. (Continued)

- a. Identifier multiplies the number of decisions on the prioritized list by the percentage of incompleteness, i ; the resulting number defines the size of the group of least important decisions for purposes of completing the matrix.
- b. For the group of least important decisions, the identifier counts the number of them for which C.D.I. data were used, and enters that number in the lower left cell.
- c. For the remaining decisions of the prioritized list (i.e., the most important decisions), identifier counts the number of them for which C.D.I. data were used, and enters that number in the upper left cell.
- d. Identifier fills the lower right cell and the upper right cell with the remainders from b. and c., respectively.
- e. Identifier notes the lower left and upper right cells; they constitute the error of focus.
- f. Identifier adds the numbers from the lower left and upper right cells, and divides this sum by the total number of decisions on the prioritized list; he then multiplies by 100% to produce the percentage of lack of focus.

The identifier can use the focus criterion to evaluate changes for a given decision-maker across separate reports to that decision-maker, and the criterion can provide comparative information across decision-makers. Where resources are available for revising the design, the temporary decision-maker or the identifier may emphasize increasing the

focus for the most important decision-makers, for example.

The third criterion, efficiency, represents the extent to which the C.D.I. data provided by the design are actually used in decision-making, according to the decision-makers. As with the other two criteria, the procedures for this one are expressed in terms of inefficiency.

Step XI. (Continued)

C. Identifier calculates the percentage of inefficiency of the C.D.I. design.

1. Identifier counts the data provided to the decision-maker, where a datum is defined as any dimension of any demand, including a demand statement itself, with respect to any combination of client and domain reported to the decision-maker.
2. Identifier counts the data which the decision-maker has listed as C.D.I. data which he used in making his decisions, where a datum is defined as any unit of data which the decision-maker identifies as C.D.I. datum.
3. Identifier cross-checks the data source used by the identifier in 1. by locating in it each datum identified by the decision-maker as a datum he used.
 - a. If the decision-maker's identified datum is located in the data source used for 1., identifier records that correspondence by tally.
 - b. If the decision-maker's identified datum is not located in the data sources used for 1., identifier records that fact by separate tally, and marks the decision-maker's identified datum with asterisk (*).

Note: The decision-maker's assistance may be essential for performing this set of sub-steps because the correspondence may not be obvious to the identifier.

Step XI. C. 3. (Continued)

- c. For each datum marked by an asterisk (*), identifier determines whether it is a C.D.I. datum provided by the C.D.I. design as defined by the identifier.
 - (1) If "yes," identifier adds it both to the count from C. 1. and to the tally from C. 3. a.
 - (2) If "no," identifier doesn't do anything with it.
- 4. Identifier divides the tally total from 3. a. (as perhaps modified in 3. c.) by the count from 1. (also as perhaps modified in 3. c.); he then multiplies the result by 100% to produce the percentage of efficiency, and then subtracts that percentage from 100 to obtain the percentage of inefficiency.

Procedures for applying the efficiency criterion can be used by the identifier to evaluate changes for a given decision-maker across separate reports to him and to evaluate differences across decision-makers. The implication of observed inefficiency is that those resources which produced the unused data have been wasted. The re-design step should be applied to reducing the inefficiency of the C.D.I. study. Resources may then be freed for improving completeness and/or focus for the same decision-maker(s), or resources could be re-allocated to other decision-makers.

A hypothetical illustration of the three criteria may be helpful to the reader. Assume that a C.D.I. report has provided twenty data to a particular decision-maker and assume that he has identified ten decisions he has made in the domain of concern to him, using data as shown in Figure 3.

<u>C.D.I. Data Reported</u>	<u>Decision Made</u>	<u>C.D.I. Data Used</u>
A	D ₁	B,C,F
B	D ₂	-
C	D ₃	M,N
D	D ₄ (X)	-
E	D ₅ (X)	-
F	D ₆	J,K,L
G	D ₇	A,B
H	D ₈	Q
I	D ₉	I,J
J	D ₁₀	-
K		
L		
M		
N		
O		
P		
Q		
R		
S		
T		

Figure 3. Some Hypothetical C.D.I. Data Reported, Decisions Made, and C.D.I. Data Used

In the figure, the decision-maker has identified six decisions for which he used some C.D.I. data (D₁, D₃, D₆, D₇, D₈, D₉) and two decisions for which he did not use C.D.I. data but wanted to (marked by "X's": D₄ and D₅). Thus, for these eight decisions, data were provided and used for only six--resulting in an incompleteness calculation of 2/8 or 25%.

For the focus criterion, hypothetically the eight decisions were prioritized by the decision-maker as shown in Figure 4.

<u>Decision-maker's Priority</u>	<u>Decision Made</u>	<u>C.D.I. Data Used</u>
2	D ₁	B,C,F
-	D ₂	-
1	D ₃	M,N
3	D ₄ (X)	-
6	D ₅ (X)	-
4	D ₆	J,K,L
8	D ₇	A,B
5	D ₈	Q
7	D ₉	I,J
-	D ₁₀	-

Figure 4 . Some Hypothetical Decision-maker Priorities, Decisions Made and C.D.I. Data Used.

Given the priorities shown in Figure 4 , the focus matrix would be completed as follows in Figure 5 for the eight prioritized decisions;

	C.D.I. Data Used	C.D.I. Data Not Used
For the most important 100% minus <u>i</u> decisions*	4	2
For the least important <u>i</u> decisions*	2	0

*where i = the percentage of incompleteness from Step XI. A. 4. b

Figure 5 . Focus Matrix for Hypothetical Example.

For the least important 25% of the eight decisions, i.e., for decision nos. 7 and 8, C.D.I. data were used for both--so the number 2 is entered in the lower left cell and a zero is placed in the lower right cell.

For the most important 75% of the eight decisions, C.D.I. data were used for 4 (for D_3 , D_1 , D_6 , and D_8) and not for the other two (D_4 and D_5)--so the quantity 4 is entered in the upper left cell and the quantity 2 is placed in the upper right cell. The error of focus is defined by the entries in the lower left and upper right cells, which indicate that C. D.I. data were used for two least important decisions and were not used for two most important decisions--an error of 4. The percentage of lack of focus thus is $4/8 \times 100\%$, or 50%.

In terms of the efficiency criterion, the same hypothetical example (shown in Figure 6) indicates that the decision-maker used 11 of the 20 C.D.I. data reported to him. Thus the percentage of inefficiency is $9/20 \times 100\%$, or 45%.

<u>C.D.I. Data Reported</u>	<u>Decisions for Which the Datum Was Used</u>	<u>C.D.I. Data Reported</u>	<u>Decisions for Which the Datum Was Used</u>
A	D_7	K	D_6
B	D_1, D_7	L	D_6
C	D_1	M	D_3
D	-	N	D_3
E	-	O	-
F	D_1	P	-
G	-	Q	D_8
H	-	R	-
I	D_9	S	-
J	D_6, D_9	T	-

Figure 6 . Hypothetical Use of C.D.I. Data Reported to the Decision-maker.

The final main element in the methodology is the revision of the C.D.I. designs for the various decision-makers based on the results of Step X, Re-identify and Redefine, As Needed, and Step XI, Evaluate the Client Demand Identification Design.

Step XII. Revise the Design.

- A. Identifier makes any revisions in the design(s) that are implied in the temporary decision-maker's priorities for decision-makers as reviewed in Step X. A.
- B. Identifier makes any revisions in the design for each decision-maker that are implied in the results of Step X. B.
- C. For those designs for which evaluation data have been obtained, identifier reports the data to the temporary decision-maker, asking him to determine whether he desires further revisions of priorities among decision-makers in terms of reducing inefficiency, incompleteness and/or focus.
 1. If the temporary decision-maker does desire that revisions be made from his perspective, he designates priorities and resource allocations for making the revisions.
 2. If the temporary decision-maker does not desire that revisions be made from his perspective, his original priorities for decision-makers, as perhaps modified in Step X. A., are implemented by the identifier in Step XII. D.
- D. If resources allow, for the highest (next) priority decision-maker for whom revision has not been made and for whom the design has been at all incomplete, lacking in focus, or inefficient, the identifier makes any revisions in the design that are implied by the extent of inefficiency, lack of focus and/or completeness.

Step XII. (Continued)

- E. Identifier obtains approval of the revisions from the temporary decision-maker in terms of his concerns and from the decision-maker in terms of his concerns.
 - 1. The identifier asks the temporary decision-maker and/or the decision-maker to approve the revisions, making any final modifications they desire.
 - 2. If any of the temporary decision-maker's and the decision-maker's approvals and/or modifications are in apparent conflict, the identifier asks the parties to resolve the conflict in whatever way they choose.
- F. The identifier implements the revised design(s) as approved.

The foregoing revision procedures are believed to be adequate for the initial field testing of the methodology. They are, however, incompletely specified for more complex applications, and further development will be required.

C H A P T E R I V
EVALUATIONS OF DRAFT I OF THE METHODOLOGY

When some procedures have been designed, methodological evaluation begins. Two kinds of methodological evaluation were applied to Draft I: tests of logic and field tests. The intent of both kinds was to provide the developer with data for his decision-making about the methodology.

Tests of Logic

In designing procedures of a methodology, a developer may construct in his mind a series of hypothetical situations in which he sees the sub-purposes of the methodology being implemented. He creates these projections from the cloth of his own experience. No matter how rich, that experience has limits, and to that extent the resultant procedures also will be limited. Yet a methodology, by definition, is intended to accomplish a purpose more widely held than by the developer alone, which suggests that additional perspectives should inform the development process. Thus, it is reasonable that the developer seek the critical review of other persons whose perspectives can help to define the purpose and to specify the procedures. These other persons may identify methodological gaps the developer might not have realized, and they can, from their own experience, suggest potential flaws which need to be corrected. For purposes of developing Client Demand Identification Methodology, the processes by which other person's perspectives are brought to bear are called "tests of logic." Tests of logic are analogous to the tests of completeness that are employed within the methodology itself.

One test of logic contributed to the preparation of Draft I. The developer at weekly intervals presented the developing procedures and rationale to his major advisor for critical review. The results of this test were incorporated into Draft I and will not be further reported here.

Logic tests of Draft I consisted of reviews of the preceding chapter which in its draft form was entitled "The Methodology at a Point in Time: Description and Rationale." All members of the dissertation committee reviewed the draft chapter in whole or in part. Professor M. Venkatesan--then of the Marketing Department of the School of Business Administration, University of Massachusetts--reviewed the first half of the chapter. Parts of the chapter were also reviewed by one or more fellow graduate students. Professor Leon Jones of Governors State University, Illinois, reviewed about one-third of the draft chapter.

The developer's intents for these reviews were (1) to identify major logical gaps in the procedures, (2) to identify superfluous procedures, (3) to identify problems with the drafted rationale--i.e., major gaps, superfluous rationale, inconsistency within the rationale, (4) to identify inconsistency between the rationale and the procedures, (5) to identify inconsistency among the procedures, and (6) to identify errors of grammar and diction. The participants were orally advised of these intents. In all but one case, the developer met with the participant alone while the participant read the draft chapter. Each session was recorded on audio tape, and the developer took written notes of the reviewers' comments. Over all, approximately eight hours of such review took place before the field tests.

Analysis of these tests of logic indicates there were five kinds of recommendations: (1) correction of certain grammar and diction, (2) minor expansion of the basic concepts and implications sections, (3) suggestions for discussion of the overall problem area in Chapter I, (4) slight expansion of several rationale passages, and (5) commencement of the initial field tests. To summarize the participants' conclusions: each expressed his belief that the rationale and description of procedures was basically appropriate for Draft I which was about to be field tested, and each expressed his interest in having the development process move to the field test stage. There were no substantive changes to be made in the methodology.

From these tests, the developer concluded that field testing could begin. He did not conclude, however, that testing for logic had been absolutely completed. Testing for logic is reasonable at almost any point in methodological development, and further testing is recommended for Draft II (see Recommendation 14 of Chapter VI).

Field Tests

The field tests had two basic purposes: first, to determine whether the methodology worked at all and, second, to identify which parts, if any, failed and therefore needed to be revised. The latter purpose included identifying gaps in the methodology. The field test design called for application with an actual decision-maker selected by the developer.

To accomplish these purposes, it seemed reasonable to apply the methodology in the simplest conceivable and available situations. If

the methodology were completely successful under such conditions, the tests would not demonstrate that it would be successful under any other set of conditions. But they would produce knowledge of success under those conditions. If the methodology were to fail either in total or in some parts, one could conclude that it needed to be revised; and under the simplest test conditions, one could most easily observe which parts need revision.

The developer's conception of "the simplest situation" was one possessing the following characteristics:

1. One identifier--namely, the developer.
2. One decision-maker.
3. One domain of concern to the decision-maker.
4. One client who, with respect to the domain, is of much greater concern to the decision-maker than is any other client.
5. A shared language among the identifier, decision-maker and client.
6. The situation belongs to a class of situations possessing characteristics 1-5.
7. The developer has ready access to more than one member of the class.

The foregoing characteristics were believed necessary in order to test at least the major steps in the methodology. Characteristics 6 and 7, for example, were related particularly to the testing of the first two steps of the methodology: promoting client demand identification and screening initial inquiries. However, it was recognized that the same few characteristics might not be sufficient to permit the evaluation of each sub-step within the major steps (for example, the sub-step in

which a temporary decision-maker is asked to identify and to prioritize the decision-makers for whom client demand data is desired). Evaluation of the sub-steps in toto was deemed to lie beyond the primary purposes of the initial field tests.

The seven characteristics served as screening criteria for possible field test situations in order to create a pool to which the methodology could be applied. The developer thought of a number of situations relating to the potential ultimate use of the fully developed methodology: city planning, public policy-making, public interest advocacy, planning in voluntary associations, and other generalized situation classes. Most of these categories failed to have the fourth characteristic: One client who, with respect to the domain, is of much greater concern to the decision-maker than is any other client. However, another category, the "helping professions," provided many classes of situations which met most of the criteria:

Physician and patient
 Lawyer and client
 Counselor and counselee
 Cleric and parishoner
 Social worker and client
 Probation officer and probationer
 Prisoner sponsor and prisoner

The narrowest criterion turned out to be the seventh: ready accessibility to the developer. Looking "close to home," the developer found that academic advisor-advisee relationships would qualify, and the University of Massachusetts certainly had plenty of them.

Then the question became, how many situations probably would be needed in order to carry the methodology through all the major steps?

Since only one situation would be required under the terms of the basic field test design, the developer guessed that he could produce that number by applying Step 1 (Promote Client Demand Identification) to the doctoral committee chairmen among the Graduate Faculty members of the School of Education, University of Massachusetts. At that point, the developer estimated the population of such advisors to number about fifty. As a back-up population, the developer planned to expand application of Step 1 to other professional schools within the University if necessary to produce at least one situation in which the later steps could be applied.

The instrument for observing the field test was defined as the developer. Accordingly, the developer planned for his observation of the field test. Even in a simple situation there is much to observe; not only are there a number of specified procedures to be applied, but also there are the interactions of the participants with each other and in relation to the procedures. In order to keep the job within manageable bounds, the developer planned to make certain observations and to provide for the later possibility of making others. The definite observations were to be of the occurrence of each step and sub-step-- did it occur or not?--as determined by the developer; these observations were to be made on the basis of two records of the applications: a log and audio-tape recordings of meetings with decision-makers and clients. The developer's log would contain documents such as letters to prospective faculty participants as well as a running record of the field test from the developer's perspective, including difficulties encountered,

potential special cases requiring specialized pieces of methodology, and gaps in the methodology. The audio-tape records of oral communication between developer and the decision-makers and clients would permit subsequent observations to be made of the recording.

In addition to observing the occurrence or non-occurrence of the steps and sub-steps, the developer planned to observe whether the defined outcomes intended from each step and sub-step were achieved; for this purpose, one operational dimension, at the minimum, would be observed from each sub-step that has been operationalized at least partially to the level of observability. In this connection, it was conceivable that an intended outcome might occur even though a given sub-step were not performed; such a datum might suggest that some other sub-step were sufficient to achieve the result, for example.

During his contacts with other participants, the developer would employ protocols intended to encourage each participant to raise any questions at all regarding what he was doing or what the developer was doing that came to his mind as he participated.

Most of the methodology's sub-steps have intended outcomes that are directly observable. (This characteristic directly results from using the met methodology, as discussed in chapter II.) For instance, the intended outcome of Step 5 (Identify Clients) is a list of clients, priority ordered, weighted and approved by the decision-maker. Accordingly, one can observe whether in fact a list is produced, and one can further observe--by directly asking the decision-maker, for example--whether the list represents the decision-maker's definition of "clients"

and his priorities, weighting and approval. Further, to the extent that each step and sub-step is an operational procedure, one can observe whether it has been performed at all. (If one cannot observe whether it occurs, then the methodology is incomplete and needs further development.) Of course, some pieces of the methodology had not been fully operationalized at the time of the field tests, and evaluation of them was recognized to be tenuous. Draft I's Step IV. C. 1. illustrates such a partial operationalization: "Identifier explains to temporary decision-maker the need to prioritize the list of decision-makers." In this case, the two terms "explains" and "the need" had not been stated as directly observable behaviors or states, thus leaving something to be interpreted (or possibly misinterpreted) by an observer, not to mention the participants.

Prior to beginning the field tests, the first major step in the methodology, Promote Client Demand Identification, had not been fully operationalized (for reasons noted in the preceding chapter). In fact, no sub-steps existed in writing. Since the purpose of this step was to put the C.D.I. practitioner in touch with people who may have the problem which the methodology is intended to solve, the developer designed some procedures at the outset of the field testing. In so doing, he reconceptualized the field testing into two tests, one which dealt with steps 1-4 only and another which dealt with all steps. The reason for this overlapping partition had to do with the nature of the "simplest conceivable and available situation." If the developer wanted to work with a pool consisting of doctoral advisor-advisee relationships, then

he had virtually identified the decision-makers (step IV) already: the doctoral advisors. That was not a particularly thorough test of step IV; but more importantly, it seemed to preclude testing steps I-III to any degree. On the other hand, if steps I-IV were applied strictly as the developer intended during their development, then there was no assurance that the situations selected by a temporary decision-maker on a priority basis would include the situation the developer had desired to work with.

The dilemma was resolved by a decision to apply steps I-IV to certain decision-makers whose professional responsibilities related to graduate education and to apply all steps (recognizing that application of steps I-IV would be minimal in this next case) to the pool of pre-conceived simplest situations. Thus, the developer felt that all steps were reasonably likely to be tested in at least one of the parts of the field evaluation.

In order to test steps I-IV, the developer planned to contact the School of Education administrator primarily responsible for graduate affairs, Assistant Dean Norma Jean Anderson. It was further planned that if for any reason other than methodological the four steps could not be completed with Dean Anderson, then the next person to start the steps with would be Richard O. Ulin, Director of Graduate Studies for the School. Again, if the steps could not be completed for other than methodological failure, then the steps would be applied with James M. Cooper, Associate Dean of Education, University of Houston, with whom the developer has worked in the past on other matters; Dean Cooper's

current responsibilities include graduate affairs at the University of Houston. If the methodology itself should fail in any instance in which it was applied, then the methodology's provisions for revision would be employed (step XII).

The second field test was intended to evaluate primarily steps V-XII. Since this second field test was designed partially after the first test was performed, it will be discussed after describing the first test.

A half-hour meeting was scheduled with Dean Anderson, and the developer left with her secretary a copy of the dissertation proposal accompanied by the following note:

During our meeting, I will ask for your brief, direct participation in the initial field test of a new methodology. If you agree, we may be able to complete most of your involvement within the half-hour appointment.

The attached dissertation proposal explains the background and purpose of the methodology I am developing. It will be helpful, although not essential, if you will have read at least the introduction, overview and problem statement sections. If you have time, please "read on."

See you then.

At the outset of the meeting with Dean Anderson, the developer summarized the process of methodological development, gave the purpose of the proposed field test, and described the "simplest available situation" criteria. The developer then asked Dean Anderson to play the role of "temporary decision-maker--that is, the person who identifies for me the people for whom client need information might be desired within the advising area." In that role, she identified a source list

of graduate faculty advisors, and she also defined the students as "peer advisors" for one another. Among all these advisors, faculty and peer, she did not want to say that any were more important than any others in terms of their need to know what advisement their advisees want--with these exceptions: for doctoral advisees, the chairman of the dissertation committee would be ranked higher than committee members, and the chairman of the guidance committee would be second to dissertation chairmen. Dean Anderson then provided the developer with the name of the person who could identify all the faculty advisors of record. The developer summarized the memorandum he planned to send to advisors; he described the procedure he had in mind for systematically contacting advisors a few at a time; and, finally, he described in brief the twelve major steps of Client Demand Identification that he would be applying in the service of an advisor. Dean Anderson concluded by asking if she could keep a copy of the developer's dissertation proposal in order to furnish it to students as a potential "model" for their proposal writing. As a result of this field test, no substantive changes were made in the methodology.

At the beginning of the second and more extensive field test, two activities took place about the same time. One was the drafting of a memorandum addressed to the prospective decision-makers as individuals, soliciting their interest. The other was the development of a sampling plan that would be consistent with the concept of the simplest field test situation. The developer needed only one such test situation, and he wanted to contact only as few members of the population as necessary

to provide that one. The memorandum would be sent to a few persons at a time in a random sequence until a positive response was received that seemed likely to provide a test of all the major elements.

The memorandum was kept to a single page so the developer could determine what parts of the memo failed, if indeed it should fail to elicit sufficient interest. A first draft was reviewed with the chairman of the School of Education's executive committee and with the Assistant Dean for Student Affairs as noted above; no changes resulted. The Director of Graduate Studies of the School of Education suggested several modifications which were incorporated into the final draft: (a) specification that the advisor would choose the particular advisee, (b) suggestion of several kinds of advisees who the advisor might wish to consider choosing, and (c) a covenant of confidentiality with respect to the identities of the participants. Figure 7 shows the memorandum in final form.

When the field test began, seventy-seven members of the School of Education faculty were eligible under University rules to serve as chairpersons of dissertation committees. These persons were also eligible to serve in all other advisement roles: guidance chairman, committee member, and so on. With some of these faculty members, the developer had worked closely as a faculty colleague, as an administrator, or as a student, and the developer was currently working with several as a part-time associate director of one of the School's programs. It seemed possible that field testing with those persons might introduce factors that were extraneous to the C.D.I. methodology. Therefore, the

M E M O R A N D U M

To: (Faculty member, by name) (Date)

From: Dick Coffing

Subject: Providing Advisement Information for Your Use

I want to do some needs research for a few doctoral advisors within the next month, and I hope you will be interested in my doing a study for you. The primary purpose would be to provide you with information on the advisement needs of one of your doctoral advisees when the needs are defined from the advisee's own perspective.

My intention is to provide information you actually will want to use for making decisions about your advice to that student. You would select the particular advisee. For example, you might choose someone whose needs you assume you know well, and the research would then test that assumption for you. Or you might pick someone you think you are not satisfying, or someone you are just puzzled about. The data would be presented in such a way that your identity and your advisee's would remain confidential to the three of us.

For my purposes, doing the study will help me evaluate parts of a methodology I am developing in order to provide public service decision-makers with information about their clients' needs as determined by the clients.

If this proposal interests you, please get in touch with me immediately by tearing off the bottom of this sheet and sending it to me, via David Flight's faculty mailbox, or by phoning me at 549-1531 or 545-1563 so we can arrange to talk.

To: Dick Coffing

From: (Faculty member, by name)

Let's talk about the possibility of your doing some advisement needs research for me. Please get in touch with me as follows: _____

Figure 7 . Memorandum Used by the Developer to Contact Decision-makers.

developer reduced the list by crossing off the following categories of faculty members: (a) persons responsible for his doctoral program, (b) administrators of the School of Education, (c) persons the developer was currently working with directly in any capacity, (d) a blood relative. The revised list contained fifty-four names.

Using a table of random numbers, the developer determined a sequence in which the faculty members would be contacted. The plan called for sending six memoranda a day, but only three were ready the first day. Another nine were sent the second day, and six more were sent the third day, which was a Thursday. On that Thursday, the first reply was received with the comment, "I'd love to do this if [the word "if" was underlined three times] it won't take much time. Frankly, I'm swamped." The developer decided to wait for a less qualified response. The following Monday, upon returning from a three-day meeting out of town, the developer received the second reply; the person said, "O.K., sounds intriguing," and he noted he would be out of the country for a few days; the person gave the name of a student who could be contacted. Since the developer wanted to apply the methodology directly with the decision-maker before working with the client, the developer decided to wait. That Monday was the beginning of a week-long University vacation, so the developer assumed that he would delay sending out any more memoranda for a few days since hardly anyone would be around to receive them. On Tuesday, the third reply was received; noting he would be away most of the semester, the person concluded, "--so, does not seem like anything I can do until the fall." Thursday, the fourth reply was

received; it was unqualified and it invited the developer to call. No one answered the developer's first phone call. However, the next day, Friday, the developer learned the prospective decision-maker would be home the following day. The developer decided not to distribute more memoranda since this one prospect might be enough and anyway the developer would be out of town at a conference all the following week. On Sunday, contact was made between developer and prospective decision-maker, and they agreed to meet after the conference, that is, one week later. Subsequently, three replies were received, but the study for the person who replied fourth was already underway with every likelihood of being carried to completion. In all, then, seven replies were received from the eighteen persons who were contacted during this application of the first step of methodology. Since the memoranda were expressly intended to solicit only positive expressions of interest, the proportion of replies suggests an opportunity for further studies; perhaps these and other faculty members perceive some needs for advisement needs research of a kind suggested by the memoranda; it would seem worthwhile for someone to pursue that possibility.

The prospective decision-maker seemed ready to proceed with the application. Accordingly, the developer's plan for the meeting was to briefly describe the metamethodology being used for the study, to show the person the first four pages of the draft rationale chapter, and to apply the C.D.I. methodology as seemed appropriate in the specific situation. Planned duration was about a half-hour.

The meeting with the prospective decision-maker did last about

one-half hour; with the person's permission, the session was tape-recorded for the developer's subsequent use. Since the person had returned the entire memorandum to the developer, the developer first showed the prospective decision-maker the memorandum again. The developer's purpose in doing this was to remind the prospective decision-maker of what stimulated his interest in the first place. Then the developer said,

What I am attempting to do is to develop a set of rules and procedures for accomplishing this purpose: providing data to public service decision-makers for use in their decision-making.

This statement was intended to supplement the memorandum's reference to needs research and to lead into the discussion of some basic implications. "That implies," the developer continued,

it is data they will use, they'll actually use, they'll want to use because it's important. It implies that one can specify a route to get there that will accomplish that purpose; and it implies that one can test that route in terms of that purpose and sub-parts of the route in terms of parts of that purpose. And I'm using a methodology which Tom Hutchinson, primarily, has developed--a methodology for generating methodologies--which at a general level he used to generate the evaluation approach which is now called the Fortune/Hutchinson Evaluation Methodology. Jim Thomann is using it with Chris Dede to develop Futuristics Methodology, and Carl Hoagland for Inquiry* Methodology, me for Client Demand Identification Methodology. And it starts with the notion of a purpose and then tests the purpose in terms of some test of practicality, desirability, operationalizability, and so forth, and then has some steps for building a procedure. I've gone through those with this purpose and built steps of a procedure which I then tested logically

* i.e., "inquiry learning"

with some people to see whether it conceptually hangs together from their perspective. And now the next step in my process is to field test it in a real situation to see if it works at all. To do that I've chosen to use the simplest conceivable and available situation--which is one in which there are a minimum number of people in the situation to work with, and for me the simplest was one where there was one decision-maker who wanted data about what a client wants, there was one client, and there was one person, namely me, who would work with the methodology; there was probably a single domain of concern to the decision-maker; also with respect to that domain that client is more important than any other clients, far more important than any other clients with respect to that particular domain. Now, in terms of advisor-advisee relationship, you see, that's pretty simple: the domain suggests it's your advising of that person. And there are some other requirements such as standard English and between decision-maker and client there isn't a financial relationship--a direct payment going on--because I didn't want to get involved in what the implications of that might be, particularly, since I'm ultimately trying to deal with public service agencies where there isn't an exchange of funds between client and the institution such as a citizen and a planning agency--there's no exchange but there's a client-decision-maker relationship. Now, any questions so far about that?

"I assume," said the decision-maker, "that you have to get the assent not only of the decision-maker but of the client." "Right," said the developer. After a pause, the decision-maker asked,

And how long a duration of relationship is desirable between the decision-maker and the client? In other words, are you looking for somebody who is coming in, in September because then you'd know that there would be at least a whole year or even probably two or three years of work between decision-maker and client, between the advisor and the advisee. If you were taking somebody who's an advisee now, they've already had at least one year. If we were to take somebody who had had two years, there would be very little left unresolved probably between those two--well, no, that might not be true; maybe somebody's in difficulty,

and there's a very good reason why you would need to have a third person come in and help out, but . . ."

"O.k.," interrupted the developer,

I'd like to not answer that question from my perspective right now because I think you're thinking of some of your own criteria just as you talk; somebody you might pick, and there are various criteria. What I'd like to do is have you read the first couple of pages of the rationale chapter, which sort of explains the roles that I've identified and the major steps in the methodology--to give you a handle on it more specifically. And then we'll just start through the procedures in detail or we can stop at that point depending on, always depending on what your choice is.

"I guess I should ask one question," said the decision-maker.

"How long is this going to take today?" "And today," replied the developer, "I'd like to take no longer than maybe another fifteen minutes."

"O.k., because I have another meeting I have to get to," observed the decision-maker. At this point, the developer gave the first four pages of the draft rationale chapter to the decision-maker for him to read. After four minutes, he asked for clarification on what happens in the methodology after step IX, Report Operationalized Demands, and the developer briefly explicated steps X, XI and XII (Re-identify and Redefine, Evaluate, and Revise, respectively). Then the decision-maker said,

A:* Well, I have several students that this would be interesting to use for, who need some help, and where I'm baffled as to how to help them--but where my relationship with them is a positive, fairly strong, supportive relationship. They are not giving up on me and I'm not giving up on them, but they are having difficulty, not so much perhaps telling me, but having difficulty telling themselves what they need, what

* Hereafter the letter "A" will designate the decision-maker, whose pseudonym will be "Arnold," and the letter "D" will designate the developer.

they want, what kind of relationship they want to have with the School, if any. These are doctoral students; they've been here one year. Do you want me to describe them?

D:* Umm, yah. Let's see, I guess . . .

A: At this point? Or do you want to . . . I'm saying that I have one or maybe two students--you might want to use a couple from the same decision-maker, but . . .

D: Umm, I guess I'd want to just start with one and then try it and then possibly the second if I have trouble with the first.

A: Of course, one thing may be: the advisee may not want to do it. One of the problems the advisee may have may be he wouldn't want to do this . . . He may not want to have a third person involved--or, he might not like this methodology. One of the things that may be bugging him may be . . . that the School has already had too much of that and this is just one more part of it.

D: Right.

A: And I don't know the answer to those questions, so I'm . . .

D: That's why I . . . to get that kind of data as a result, even if it's just a . . . even if the advisee says that kind of thing at the time that I make a presentation of the kinds of things . . .

A: That's useful.

D: That's very useful.

A: Because you're going to get it.

D: That's neat. I guess I'd rather, if it were a choice between a client . . . between one who's likely to do that and one who isn't, I'd rather have the one who isn't, because I'd rather go more steps . . . But I can't control all those things--and I don't want to; I'll just take it as it comes.

A: Well, there's a student named Mike Jones* . . .

The decision-maker described some things about Mike Jones--how long he had been a student, where he was in his doctoral program--and then another advisee, Carole Gordon*, was named along with some of her circumstances. "And you're free to talk with either one of these," the decision-maker said. Sensing premature closure on this step, the developer replied:

D: I see that one of the things I'm doing already is focusing on one that you already have in mind--an advisee. And my intent in the procedures that I have for identifying clients (which hopefully are designed for more complex situations) would have the advisor identify all of the clients of concern to him, and then work with those priorities. Now, the rationale in my mind behind that is so that the decision-maker would make a choice having deliberately considered all the possibilities.

A: Rather than make them too long, some of the possibilities, some of the people that I'm advising, you're already so far along with their work or their life is so well organized that I'm really not doing much but just rubber stamping things for them.

D: Now, do you have in mind--are you running through--all of your advisees?

A: All the ones that I'm the major advisor for who are still at a stage where there is some really significant advising going on.

D: About how many people are you thinking of in that group?

A: Four.

D: O.k., four totally. Are you dissertation chairman for anyone?

* "Mike Jones" and "Carole Gordon" are the developer's pseudonyms for two of the clients (advisees).

A: Yes, those are no problem.

D: Say some more about that.

A: The people that I have who are working on their dissertation are--that is, they've passed their comps and they are working on their dissertation--all of those are so guaranteed of success. . . . They think they need a lot of advising; I don't see that they need a lot of advising--in the sense that I can almost anticipate what's going to happen when we meet, and I know what to suggest if they get blocked, and so forth. There's just not much additional information that I need that I don't feel I already have about them. . . . The four people that I'm thinking of are people who, for one reason or another, can't tell me enough so that I know how to help them. And yet we still have a positive relationship. And they are expecting that relationship to continue if they continue here at the School. But they are in a state--some of them--of not even knowing whether they want to continue here at the School. And I don't even know clearly why that is; I don't really know what's going on.

The decision-maker named the third and fourth advisees with whom he was most concerned: George Brown and Frances Clark*. He proceeded to describe the four advisees, one at a time. The order in which he described them, he said, was based on "the difficulty I'm having (1) getting information, and (2) getting impressions, and (3) getting hunches and (4) getting opinions from them." In those terms, Mike Jones presented the most difficulty, with little difference between him and Carole Gordon.

Referring to the methodology, the developer provided some additional criteria for the decision-maker's consideration in prioritizing the

* "George Brown" and "Frances Clark" are the developer's pseudonyms for two of the clients (advisees).

four advisees for purposes of a C.D.I. study:

- Importance
- Urgency of obtaining some data before others
- Estimated client dissatisfaction
- Estimated support for the enterprise
- Accessibility
- Decision-maker doubt as to demands

Each of these was defined by the developer verbatim from the draft methodology, and after each the decision-maker ranked the four advisees according to the criterion. These criteria stimulated the decision-maker and developer to think of three more criteria to use:

- Decision-maker's estimate of interest the identifier would have in working with a particular advisee
- Risk of approaching the advisee without an introduction by the decision-maker
- Risk of approaching the advisee with an introduction by the decision-maker

After considering all the above criteria and resultant rankings, a final criterion was determined:

- Global priority

The results of this prioritization process are shown in Table 1A.

At the conclusion of the prioritization process, the decision-maker commented that he was intrigued by the use of these multiple criteria for prioritizing; he said it helped him think of important aspects of working with these advisees. Thus, the prioritization process had provided the decision-maker with some data that he immediately put to use for his decision-making.

Prioritization Criteria	Clients			
	A	B	C	D
Decision-maker's Initial Criterion ("Difficulty I'm having getting information, getting impressions, getting hunches, and getting opinions from them.")	1	2	3	4
Importance	1	1	1	1
Urgency of Some Data Before Others	1	3	3	2
Estimated Client Dissatisfaction	1	2	3	4
Estimated Support for the Enterprise	4	3	2	1
Accessibility	1	1	1	4
Decision-maker's Doubt as to Demands	1	1	4	3
Decision-maker's Estimate of Interest to Identifier in terms of Methodology*	2	1	4	3
Risk of Approaching without Advisor's Introduction*	1	3	4	2
Global Priority	1	2	4	3

* These are new criteria added during the interview.

Table 1A. Decision-maker's Prioritization of Clients

The developer and the decision-maker agreed that the global priority list should be used for the C.D.I. study. The decision-maker was to contact the first priority advisee, Mike Jones. The developer asked the decision-maker to state what he thought he would say to the advisee, and the decision-maker replied that he would say (paraphrased):

The advisor-advisee relationship is supposed to be a helping process; Dick Coffing is interested in facilitating that helping process. He is looking for a case and sent out a notice and I responded. He contacted me and we talked about it and I said, 'Yes, I did have some advisees and would very much enjoy having help' and if you need help, would you talk to Dick Coffing about it."

If the first advisee was not interested or available, the decision-maker was to contact the second priority advisee, and so on, by a week later.

The session with the decision-maker had taken about one-half hour. The next day, the decision-maker left a message for the developer saying that he had talked with the first priority advisee, Mike Jones, and the developer could proceed to work with him.

It was a week later that the advisee and developer were first able to meet. The developer introduced the basic concepts of the methodology and the purpose of doing this field test. The advisee read the first four pages of the draft rationale and description of the methodology. With a tape recorder present, the developer asked the advisee what the decision-maker had said to him to introduce the possibility of doing some C.D.I. work; the advisee's answer failed to be recorded because, as the developer later discovered, the batteries in the machine had lost their charge. An appointment was made for an initial session between developer and advisee one week later.

The first regular session with the advisee took place in the developer's living room and lasted one hour and forty minutes. Since the tape recorder had not worked during the previous meeting, the developer asked him to repeat what the advisor had said to him in order to introduce the possible study. Mike Jones reported the event as follows:

MJ*: I saw him at a meeting and he pulled me aside and we went out of the meeting and he said that you had contacted him about something that you wanted to do concerning--he didn't mention that it was concerning your dissertation--said that you were interested in a process concerning decision-making and said that you were a friend of his and because of that you were interested in what he was doing plus that it sounded interesting and the project seemed to be a good chance for he and I to clarify our position in terms of me being an advisee, so that ours was an interesting situation.

"Was that the word?" the developer asked, referring to the word "interesting."

"Something like that, yah," he replied. "I forget."

D: You used the words 'strange and unique' last week, and I don't know whether those were his terms or yours.

MJ: It was another word sort of like 'unique'.

The advisee continued:

MJ: And so he asked me if I wanted to get involved in it, and I said, 'Yes.' And I said that I was also kind of happy but scared too. It was a little almost like being asked to come into therapy or something like that--because of problems.

D: [interrupting] By the way, I didn't say what,

* Hereafter the letters "MJ" will designate Mike Jones.

uh, let me repeat what I had in mind as far as recording and so forth. The recording and notes are not intended for anyone other than me or other than the two of us at some point, whatever notes that I make, uh, because the methodology that I have doesn't provide for sharing of just conversations between the advisor and the advisee. My feeling is that the procedures will produce better data than simply a conversation, listening to a conversation, so it's not my intention to have Arnold [the advisor and decision-maker] listen to this nor, conversely, having you listen to anything. Well, simply because that's not provided for; I think there are better ways of accomplishing the purpose. I wanted to put that in as an aside; I thought of that when you, when I felt a hesitation to say what you felt the relationship might be and that you felt kind of scared a little bit--but you did mention therapy, and I thought you might be anticipating 'now, what word would I want to use if Arnold were hearing,' see. [Advisee laughs.]

The advisee resumed his description:

MJ: I can remember at the time being really pleased that he had thought of me because he seems like such a busy guy; that was just a neat thing for him to go out of his way and do that.

The developer then asked the advisee to say how he got to the School, to this advisor, and where he was in his program. The advising relationship began as follows, according to the advisee:

MJ: . . . I came and contacted Arnold as quickly as I could and was pleased, sort of feeling lucky, that I had met somebody who's a pretty good listener. Right away he gave me an assignment to tell him about the things I was really interested in, long-term goals in my life. And I sort of wrote it up, and . . .

"Do you have a copy of it?" asked the developer, sensing some material which might be useful as a test of completeness for the advisee's need statements.

MJ: I have it somewhere, yah.

D: That would be very useful.

MJ: And it was interesting 'cause I had never thought of drawing them all together that way. And they were strange things; they weren't necessarily connected to education. And some of them have been accomplished, so far.

His long-term goals paper had been written about fourteen months prior to this meeting with the developer. At that time, the advisee had just arrived at the School as an in-coming master's degree candidate. During that first semester, with the sponsorship of the advisor he successfully applied for admission to doctoral candidacy. Thus the current meeting between advisee and developer was taking place near the end of the advisee's third semester in the School. The advisee had not yet formed a doctoral guidance committee, nor had he begun formal planning for his comprehensive examination. Between advisor and advisee, there apparently existed a psychological contract, and the advisee commented with respect to his advisor, "I trust him, for some reason; I don't know why, but I just kinda . . ." He had apparently completed what he wanted to say.

Both advisee and developer paused a few seconds. Then the developer referred to the C.D.I. process and to his purposes for the field test:

D: Let me remind you that this is a field test for my dissertation--the reason I wanted to say that is that there's no reason for me to put a 'cover purpose' on what I'm doing with you. And Arnold probably didn't mention it simply because he felt it was less important than the other things that he wanted to say to you.

MJ: Uh, huh.

D: Uh, and I'm trying to find out whether the procedure works at all. Now if you have any . . . uh . . . you did read the first four pages of the rationale chapter, so you have that overview of the procedure, and I want to be sure to underline that if any questions, comments, criticisms, or witicisms come to you [the advisee laughed] at any point, why mention them now, or then. I may not be able to, because of the procedure--conceivably, I might not be able to respond, I might not want to respond--to answer the question directly at that point; if not, we'll pick it up later.

MJ: Hm, hmm.

D: Now, Arnold is interested in knowing your demands or your needs or your wants in the domain of your advising relationship. And 'domain' was that word that sort of describes the sort of 'field'--broad field--of the relationship--kind of like [here the developer tore a sheet of blank paper from his pad] the blank page. [The advisee laughed] Inside its boundaries are advising; and he's not interested in knowing what you want in the way of, let's see, uh, groceries this week--to give you some sort of trivial example of what's outside the boundaries of the field. And that's about it. He understands the nature of the relationship with you in about the same way that you've described it: it's not firm and in writing, but it is a somewhat fuzzy understanding that obviously has to become more clear to both of you, over time. And I believe that he hopes that this procedure will do that for both of you. So that's nice, and that's what I would intend to have happen, too.

After several seconds, the developer continued, speaking slowly:

D: The first step in beginning to identify your wants or expectations is for you to imagine that advising, advisement--with Arnold and from Arnold to you--uh, imagine it as you would like it to be.

The advisee laughed. "Fantacize," he said as if to give a synonym.

D: Yah, kind of construct sort of a hypothetical situation--uh, hypothetical in the sense that it's not how happening, it's a projection . . . the future; and imagine perhaps him and you wherein he is providing the kind of advice that you need, want, demand.

So what I'd like you to do is to think about that situation and what's happening in it and to . . . where it's the best, it's the most desirable advice; and then write down the things that you want to have happen to you in that most desirable situation. I emphasize 'desired state' rather than 'ideal' or 'perfect' in order to take into account you're real, Arnold's real; neither of you, none of us, can accomplish what any of us could conceive of as an ideal state. O.k., and tell me as you think of that if you're thinking in terms of a time frame--like the next two months, the next half year, the next two years.

MJ: . . . Do you want me to write down the time frame? Or tell you?

D: Yah, I'd like to . . . either way. One of the possibilities is that it may be important to work in terms of several time frames. You may have different wants for advice within different periods of time. If you don't, if that doesn't seem important to you, if you haven't thought about it and now that you're thinking about it still doesn't seem important to you, then don't worry about the time frame.

After a few seconds, the advisee said,

MJ: Maybe I could say something because I don't know if I can put it down: that, that one of the . . . if it's on tape, there it is . . . Um, what you were asking me to think about reminded me of sort of a frustration. Um, it's sort of like he's a very busy man . . . and I don't like going in there very often--just because I don't like to take up his time. But when I come in I have the feeling that he's in another world, thinking about other things, and he's completely lost track of what's been happening to me; so a lot of time is spent just catching up, not necessarily catching up but trying to remember what was happening.

"O.k.," began the developer, trying to get the advisee to make a connection between what he was just thinking and the C.D.I. task at hand, "now, if you think about it, if you can convert the things you don't like in that situation . . ."

"Yah," interrupted the advisee with a chuckle. "Put 'em down in terms of what I would like."

"Yah, that's right," responded the developer. "That's exactly the kind of thing that I have in mind, that I would like you to be doing."

MJ: O.k.

D: O.k., and I think I'll turn this [the tape recorder] off.

During the next approximately twenty minutes, the advisee wrote the following statements on the unlined paper provided by the developer:

Time frame - the one year more that we'll physically be here. The rest of our lives even though we'll probably be scattered.

Do together that which is mutually enjoyable (crafts - nature walk - drink wine - eat - cross country ski, etc.) and have conversation be an outgrowth of the activity.

This involves a social activity which has meaning to me in terms of building a friendship as opposed to a dependency upon Arnold strictly as one who can answer my immediate problems.

The framework I'm describing is one whereby we can be at ease to learn about each other. For my part, there's a lot I want to know about Arnold, both his experiences and how he approaches life. I always find such glimpses fascinating.

I want to be secure in the feeling that there's something in it (the association with each other) for him to enjoy also.

The advisee seemed to feel that the above statements were enough for now and that he was ready for a next step. However, as a check on the methodology, the developer asked the advisee "to say what you understand the task to be that you were just doing--so that I can get in touch with your conception of it."

MJ: O.k. The task involves, uh, stating or describing not an ideal but a, more of a realistic expectation of what, of what, um, could come out of our relationship as the advisor and advisee. I found myself thinking about what sort of situation is the most meaningful, has been the most meaningful. . . . It wasn't being in his office and coming to him with something of an immediate need or anything like that. It was more just doing, enjoying, an activity with him--enjoying a meal together or a weekend or something like that.

D: You saw a number of possible situations--or at least some alternative situations?

MJ: Yah.

D: Under which the advice would be happening.

MJ: Yah. . . . So I saw it as pretty loosely structured in terms of, I mean I couldn't come down to specific needs in terms of advice, but I can envision the kinds of situation where I'm comfortable and he's comfortable and I learn about him and hopefully he's learning about me.

Hoping to better understand the advisee's conception, the developer asked, "When you say you didn't think of specific needs for advice, what do you mean by 'needs for advice'? I want to know what you're not doing, from your perspective."

MJ: Well, they could be, uh [a pause] that's really, that's really hard! [Pause] Well, I'm thinking of it in terms of, uh, I guess mostly in terms of what I read, er, what a jumble! Either in terms of [pause] --all I can think of is the way, is the whole, what it's all about when you have an advisor. [Pause] Say it again.

D: Uh, you said that, uh, what you were thinking of in the situation was, uh, were sort of circumstances where you feel comfortable and where you learn--from one another. And you didn't think of, as I recall your exact words, you didn't think of specific needs for information or advice; and I wanted to know what you meant when you said, 'I wasn't thinking of

specific needs for advice. What was it that you're not thinking of--in other words, I guess it's kind of your definition of 'needs for advice' that I need to know more about, an example of what a specific need for advice would be that you didn't think of.

MJ: That's hard 'cause I couldn't think of 'em.
[Advisee and developer both laugh] Well, um . . .

D: [Interrupting] How would you describe the category, then?

MJ: O.k., uh [he paused for nearly a half minute] well, the category would involve, um, something like asking for right answers, almost, in terms of, uh, getting, getting, uh, his opinion rather than finding out for myself, sometimes--in terms of just things that are going on in school.

D: Uh, huh. [Pause, as the developer reaches for the sheets bearing the advisee's needs statements] Let me see what you have, and then I might be able to know whether I need to have more of an answer to that question. O.k., before I look at this, let me also ask that if I were to say, 'Describe the things that you want to have happen to yourself or to others in that most desirable state of advising,' would you put down different things than what you have put on this paper?

That question occurred to the developer a little earlier when he compared the written stimulus procedure with his recollection of what he had actually asked the advisee to do as the first step; the comparison had yielded a discrepancy, and this question was intended to discover whether the discrepancy reflected a serious flaw.

MJ: Describe the things that you would . . .

D: [interrupting] The things that you would like to have happen to you in that most desirable state of, or that desired state of, advising. Describe the things that you would like to have happen to yourself or to others in that desired state of advising.

MJ: Hmm, I don't think it would be too much different.

D: Would it be some--perhaps?

MJ: [pause] I don't think so.

The foregoing exchange failed to reveal any serious flaw; but, it also failed to rule out the possibility there had been a flaw--because the developer's question in this instance involved observing the advisee's verbalized conjecture about what he would have done, rather than observing directly the advisee responding to the written stimulus procedure. No more time was available to spend on this problem, the developer felt, considering the remainder of the procedures. He began reading the advisee's needs statements.

D: [quoting what the advisee had written] "Time frame - the one year more that we'll physically be here. The rest of our lives even though we'll probably be scattered."

The advisee explained that the "we" included his wife, Sharon*. It seemed Sharon's sister had been an advisee of Arnold at another college, so they had heard about Arnold before. Thus, in the advisee's words, "the relationship involves her, too, in that sense--which is nice--but it's also complicating!" This statement suggested a question to the developer:

D: Yah, do you see some things happening to her as you are thinking of the desired state of advising, of Arnold's advising? Did that involve . . . [he paused]

MJ: Well, I started thinking about it, and that was complicated 'cause, uh, in one sense I'd like her to be involved and in another sense I'd like a lot of attention for myself. So I don't know, that's sort

* Developer's pseudonym for Mike Jones' wife.

of conflicting needs--so I just brushed it out of my mind.

D: That's probably important to consider it and even to write it down, if you didn't, because we all have conflicting needs.

MJ: Hm, hmm.

D: And that's where you'll, and, trying to get at the real stuff, so, uh . . . [he returned to reading aloud the advisee's written needs statements]

The next task for the developer and advisee was to analyze that written material into unitary statements, separated into the time frames specified by the advisee.

D: O.k., what I wanna do next is to, uh [pause] two things I wanna do. One is to separate into two parts the one year and the rest of, beyond one year. The second that I wanna do is to analyze this into kind of unitary sorta statements, and, so, what I'll, what I would do is to write something down and ask you if you accept that as something that you want to have happen to yourself or to others as a result of this. And I'll try to base it on what I see here, but in any event it's gotta be your rhetoric or you have to accept it or it shouldn't be allowed to stand.

The following twelve needs statements were produced:

1. Doing together things which are mutually enjoyable (e.g., see original sheet)
2. Having conversation grow out of the above activities
3. Avoiding dependency upon Arnold strictly as one who can answer my immediate problem
4. Building a friendship
5. Social activity which has meaning to me in relation to #4
6. Being at ease--both of us
7. Learning about each other
8. Knowing about Arnold--his experiences
9. Knowing about Arnold--how he approaches life
10. Having fascinating glimpses into Arnold
11. For him, too, to find something to enjoy the association between us

12. Being secure in the feeling that #11 is occurring.

The developer gave the above list to the advisee and, after a moment, the developer asked,

D: Is there anything at all you'd like to . . .
[he paused]

MJ: Anything at all--what?

D: Anything at all you want to do with it. If it's not right in any respect, either change it or tell me.

MJ: I just started thinking of his needs, knowing that, uh [pause] that he's, that he's got needs, um, just the need to be alone or kind of keep something to himself, and that sometimes that's important to him, and just . . .

D: [interrupting] What do you want to have happen?

MJ: Being able to, uh, having [pause] in other words, having him able, to be able to say that, more or less, without worrying about [pause] about hurting me or something like that. In other words . . .

D: [softly] Why don't you to, try to put it into words. I mean in written form.

MJ: Yah.

During the next two minutes the advisee wrote:

His honest statement of needs that he has when he wants to be alone or not share a part of him. His not being reluctant to make such a demand. [Emphasis in the original]

The developer analyzed those phrases into the following two statements:

13. Arnold overtly expressing it to me when he wants to be alone
14. Arnold overtly expressing it to me when he wants to not share a part of him

The advisee expressly accepted the 14 statements, as analyzed.

Next, recalling the advisee's mention of his wife, the developer said, "I'd like you to write down the things that you want to have accomplished, umm, with respect, uh, to Sharon that you were thinking of--that you had this conflict [pause] about [pause] . . ."

MJ: With respect to Sharon and Arnold.

D: Yah, well, yah, in relation to the advising--your advisement between Arnold . . . [pause] Now let me say why I'm asking that. I'm taking your cue that there is something there that you want to have happen--even if that's to have something not happen--that directly relates to the advising relationship. Now, that's vague, but in other words you thought of it as you were thinking of this problem, and if there is something there then why not make it explicit?

The advisee then wrote:

Would like Sharon and Arnold's relationship be non-dependent on mine with him. It would grow through their mutual wishes and not as a formality. Would be neat if they saw each other other than always as a result of my doing.

Arnold expresses (often) a warm feeling for Sharon. I'd like her to be aware of it and be able to do something with it.

From what the advisee wrote, the following needs statements were produced:

15. Sharon and Arnold's relationship being non-dependent on mine with him.
16. Sharon and Arnold's relationship growing through their mutual wishes
17. Sharon and Arnold's relationship growing not as a formality
18. Sharon and Arnold seeing each other other than always as a result of my doing
19. Arnold expressing often a warm feeling for Sharon
20. Sharon being aware of #19
21. Sharon being able to do something with #19

These seven were expressly accepted by the advisee.

In effect the developer had applied some tests of completeness by asking the preceding several questions. In the following way he made the process explicit and prepared the advisee for more tests of completeness:

D: The next, uh, major thing that, uh, I intend to have happen is to test the completeness of the statements--and we've sort of partially begun that by my going back and suggesting to you some things that you said that you didn't write down. More importantly than that, perhaps, is to have other persons' statements of what they want out of advising. And I'm not sure how I want to handle that quite yet, um, there are two possibilities that really come to mind readily. One is to have some other advisees of Arnold's go through the procedure to this point, and then I could show you what they say their desires are for the advising relationship, and you could see if there was anything on their statements that were in fact part of your desires, and if not we'd go on, but it could either be that they've said something that would be part of your desire or that seeing what they say stimulates you to think of something else. And I'm going to attempt to do that--I think as an alternative to doing it with Arnold's advisees--with just someone else--I'm not sure yet I'm going to pick them, in the next week. So I'll have something more to show you there.

Now a second test of completeness is to go back to the written statement that you did for Arnold [referring to the long-term goals paper done over a year ago] and analyze it for implications in relation to this task.

MJ: Have you analyze it--or me? Or both of us?

D: We can both do it; I'd be delighted to do it with you. And, uh, that then might present some additional things to think about and to add to this list.

Yet another test which would be kind of interesting--could be kind of interesting--would be for me to ask Sharon what she thinks your desires for advising are, independent of any conversation with you and me with respect to what you've just stated. And then have her write those things down, and then

I could analyze them with her acceptance of the statements, and then show you that list as an additional perspective. It's also something that you could do yourself; and either of those approaches strikes me as being reasonable, assuming you'd want to do that.

MJ: We ask her for a list, you mean--is that what you mean?

D: Yah, ask her what she thinks your desires are for advising.

MJ: Huh.

The advisee scanned that list of needs statements for over half a minute. Apparently he was thinking about his advising relationship, for he next said,

MJ: When we're talking, uh, a lot of times he'll kind of throw back at me what I'm saying, or just, uh, deal with it very effectively. I think a lot of times I'm saying things to get his reaction, but I don't ask him for it, really. And he usually doesn't give it, as a matter of course.

D: Is there something in there that you wanna have happen?

MJ: So I think that it would be up to me, almost, to ask how something strikes him--'cause I don't think he does it, otherwise. But that's hard to do; . . . it's hard for me to do.

D: Are you, um, I'm not sure why you're saying what you're saying right at the moment.

MJ: Well, I'm saying it 'cause it's been on my mind.

D: This is something you've written down, then.

MJ: Yah.

D: You mention that we might possibly be adding to the things you wanna have happen.

MJ: Yah.

D: Ah, hah. O.k. [pause] Well, let's see what we can do with that. Um, say it again.

MJ: O.k. Um, the process, in the way he works in an advising situation--usually when we're in an office or something like that--I'll be telling him what's going on with me and, uh, he's more intent on listening to it, hearing it, and then perhaps restating it--working with it that way--than reacting to it. And I think I'm probably not used; I'm wanting a reaction--sometimes--or the best of both . . . I want him to hear it and also to react.

D: [Reading aloud as he writes] "Arnold expressing reactions as well as repeating my statements of what is going on with me." That it?

MJ: Yah, or just hearing it.

D: [Reading again while modifying the statement] "Arnold expressing reactions in addition to (a) repeating my statements of what is going on with me or (b) just listening when I want reactions." O.k.? [the advisee nods assent] Now, do you want that to happen always, some of the time--sounds like a questionnaire!

MJ: Uh, when I was saying it I was thinking it would be neat if I were aware of when I wanted it to happen . . .

D: Sounds like you're also saying, uh, part of that desired advising relationship is knowing when you want reactions.

MJ: Yes, [pause] rather than expecting him to know.

D: [Reading aloud as he writes] "Knowing myself when I want reactions, rather than expecting him to know."

The preceding interchange had produced two more needs statements:

22. Arnold expressing reactions in addition to (a) repeating my statements of what is going on with me or (b) just listening when I want reactions
23. Knowing myself when I want reactions, rather than expecting him to know

With these additional need statements, this first session between advisee and developer had reached a logical terminus: the advisee's initial statements had been made and the methodology's next step would involve testing for completeness, for which some of the material was not yet ready. The two persons agreed to meet at the same time a week later, and they agreed to performing three tasks in the meantime: (1) the advisee would find and bring to the next meeting the long-term goals document he mentioned during this first meeting, (2) he would ask his wife to describe the things she thinks he wants to accomplish for himself or others in the advising process with Arnold, and (3) the developer would obtain needs statements from some other doctoral candidate. The question for the advisee's wife was written as follows:

"What things do you think I want to accomplish for myself or for others in the advising process with Arnold?" The advisee asked why the question contained the phrase "or for others." In response, the developer mentioned some things the advisee had already said, some examples of wanting things for his wife and things for his advisor in addition to his wants for himself; a purpose of the test of completeness, then, was to possibly elicit more of such wants for others, if there were any.

The developer asked the advisee to preserve any "artifacts" such as the meeting notes so the developer would be able to have a complete record of what was written by any of the participants.

As the session concluded after one hour and forty minutes, the advisee commented on some effects he had felt from the brief* meeting

* twenty minutes long

a week earlier. He said the meeting had resulted in his thinking of his advisor, the advisement process, his values and the things he was interested in; it was, he said, "a neat thing to have happen." He said the fact of their talking about this general area had stimulated him and that it was very important and useful for him to be thinking about these things. To the developer, these remarks seemed to be freely offered without apparent intent to ingratiate. In reaction to Mike's statement of the things that happened to him after that first meeting the previous week, the developer reiterated a point that he had made at the same meeting: that the developer was "interested in this methodology having either a neutral or a positive effect" on Mike and on the advising situation "rather than a negative effect." The developer continued:

D: . . . I'm delighted it's had what you regard as a positive effect, but I would be contented with just being neutral, to the extent that's possible. I certainly want to know if there are any negative effects from your point of view--now or at any time in the future.

Mike replied that so far there hadn't been any that he was aware of.

For a test of completeness, the developer arranged for the help of a doctoral student with whom the developer was acquainted. The developer's reasons at the time for selecting this particular person were that (a) the person was somewhat familiar with the methodology, having already read the draft rationale chapter, (b) the person had used the Fortune-Hutchinson Evaluation Methodology, hence he had practiced goal analysis and goal operationalization, and (c) the developer had previously done some counseling for the person and felt the

person's producing a list of his needs could be useful to that person for his own advisement situation.

The following task was given to the doctoral candidate:

D: . . . this session is intended to develop a test of completeness for use in my field testing of the client demand identification methodology, and, uh, I'll use it, uh, in the next few days with the advisee. So the basic question for you to respond to is, um, to imagine the desired state of advising for you in terms of your doctoral program and with your advisor, and think about the things that you would like to happen to you in that desired state. What are the things that you see happening to you as you imagine it? And write those things down.
[pause]

During the pause, the developer thought, "Now, why should he be restricted to writing?" He continued, aloud:

D: Or, speak them. I prefer the written because it's easier for me to handle, but I can also manage the spoken--as a matter of fact it might even be a better way of doing it, as I think about it.

TC:* I feel slightly constricted by having to write--but I have some notes.

D: The thing that I would want to establish, I guess, beforehand is your feelings about the person listening to the tape--which you could also change your mind about after we've finished.

TC: Could you explain that?

D: Well, ah, if you speak into the tape--I mean, if that's the way that you describe your desires for advising--then I either have to communicate it exactly that way with the advisee or I have to reduce something to writing in order to give him a list of things. And I'd just as soon save myself that analysis, uh, if I could. On the other hand, analysis is an important sub-step, as I think about it, and analyzing

* Todd Conrad, developer's pseudonym for the doctoral candidate.

something that is on the tape but not written on paper is kind of difficult--do you follow me?-- unless we were to go back and replay the tape and say, "O.k. now, here's what you said, and that analyzes out into these two or three unitary things." [pause] So, I don't know where to go from there other than to say, "Those are my thoughts on the tape versus writing." I can handle either, I guess, provided . . .

Todd snickered a little sarcastically as if to say, "What do I do; why did you put me in this dilemma?"

D: Or we could do both. We can do it orally and then [list things and analyze them while] listening to the tape again.

TC: Yah, I like, that sounds good. Then I'll write out what I feel I've said. You can, you can ask me to amplify . . .

D: [interrupting] It doubles the time in terms of re-listening to the tape recorder. [Todd snickers as before] That portion of it. Go ahead. Whatever you . . .

TC: Uh, I was gonna say that I've never, uh, I've never had any advising at U/Mass--except occasional direct advice from people like you or my "advisor." So, um, and I have trouble dealing with the difference, as I said before, between "ideal" and "desired." If you asked me what is my desired situation, I would give you my "ideal." . . . Anyway, I would . . .

D: [interrupting] Oh, also let me say that it's my intent not to indicate to you the identity of the person that I'm working with, and vice versa--in other words, I don't plan to . . .

TC: [interrupting, with a note of impatience] Uh, huh. Uh, huh. [pause] Well, my desirable advising process would include

Todd orally listed his needs for about five minutes. Then the tape was replayed, and Todd wrote the following statements:

1. Advisor to spend at least one hour per week in discussions with me.

2. Fulfill my needs for personal attention, expressed "human" concern
3. Discuss, assess individual course offerings in terms of expected concrete skill to be acquired as a result of that activity
4. Discuss sequences of course offerings in terms of more global skills to be acquired
5. Discuss, assess my entire doctoral program in terms of quantifiable skills, professional job descriptions, existing professional positions, and projected professional position
6. Discuss professional goals in terms of more general life goals and needs (suitability of fit)
7. Advisor and myself to develop a fully detailed, scheduled doctoral program
8. Provide inside, "privileged" information as to the competencies and style of instructors
9. Write recommendations and actively help in acquisition of both assistantship help and locating professional positions after graduation
10. Provide quarterly progress/evaluation reports to me on my educational program
11. Help me in selecting areas, specific sources of content for developing position papers for comprehensive examinations. Help in editing and critiquing those position papers
12. Attend my comprehensives and shepherd [sic] me through

Together, Todd and the developer examined the list to see whether any of the statements seemed to contain more than one unitary need statement. The developer asked Todd to say something more about the second statement, "Fulfill my needs for personal attention, expressed 'human' concern," and Todd replied that he wanted "To feel that my advisor really cares about me as a human being." It seemed reasonable to the developer that Todd might just have named a need which wasn't exactly the same as statement number two. Todd agreed, and the list was extended by adding:

13. To feel that my advisor really cares about me as a human being

Analysis of statement number five, "Discuss, assess my entire doctoral program in terms of quantifiable skills, professional job descriptions, existing professional positions, and projected professional position," led the developer to propose and Todd to accept the following item (which isn't unitary, but would be easy to break down further):

14. Divide above [i.e., divide the fifth statement at the commas] plus show relationships among them

Although at this point the developer intended to later divide number fourteen as stated, he actually did not do so before showing it to the advisee.

The tenth statement, "Provide quarterly progress/evaluation reports to me on my educational program," was amended to read:

10. Provide quarterly progress/evaluation reports to me on my educational program--Advisor actually conduct an evaluation (Fortune/Hutchinson methodology) of his advisee

Finally, Todd added to the list two more statements:

15. To have relationship with my advisor outside the advising process
16. To have protege relationship with advisor

Table 2 shows the test of completeness list from Todd in the form in which it was shown to the advisee, except that it was shown in handwriting rather than typescript.

The second regular session with the advisee was held as scheduled. Mike and the developer together read the long-term goals document which the advisee had prepared for Arnold a year earlier. Mike had not recently read it. When Mike finished reading it, the developer asked:

-
1. Advisor to spend at least one hour per week in discussions with me.
 2. Fulfill my needs for personal attention, expressed "human" concern.
 3. Together we assess individual course offerings in forms of expected concrete skill to be acquired as a result of that activity.
 4. Discuss sequences of course offerings in terms of more global skills to be acquired.
 5. Discuss, assess my entire doctoral program in terms of quantifiable skills, professional job descriptions, existing professional positions, and projected professional position.
 6. Discuss professional goals in terms of more general life goals and needs (suitability of fit).
 7. Advisor and myself to develop a fully detailed, scheduled doctoral program.
 8. Provide inside, "privileged" information as to the competencies and style of instructors.
 9. Write recommendations and actively help in acquisition of both assistantship help and locating professional positions after graduation.
 10. Provide quarterly progress/evaluation reports to me on my educational program--advisor actually conduct an evaluation (Fortune/Hutchinson methodology) of his advisee.
 11. Help me in selecting areas, specific sources of content for developing position papers for comprehensive examinations. Help in editing and critiquing those position papers.
 12. Attend my comprehensives and shepard me through.
 13. To feel that my advisor really cares about me as a human being.
 14. Divide number 5 into its four components plus show relationships among them.
 15. To have relationship with my advisor, outside the advising process.
 16. To have protege relationship with advisor.
-

Table 2 . Other Person's Demands

D: O.k., do you have anything you want to add to the list of . . . needs for the advising, desires for the advising process?

MJ: [After briefly turning through the pages again] Well, I think I'll show him this again, [he chuckles] and talk about it--where I am in relation to it and what I have accomplished.

On reflection, Mike added the following item to the 23-item list of needs statements which had been produced in the preceding session:

24. Discussing (the role of computers, e.g.) influence of modern technology upon educational goals, values and systems; discussing contemporary issues

Next, the developer showed the advisee the test of completeness list from Todd, saying:

D: Now, would you go down one by one through this list of someone else's, uh . . .

MJ: [interrupting] O.k.

D: [continuing] Someone else's needs or wants or desires, and for each one indicate to me whether or not it is one that's also a desire of yours, uh, or if not, does it suggest one that you do have . . .

MJ: [interrupting] O.k.

D: [continuing] If so, what is it?

MJ: Just indicate verbally--right?

D: Uh, huh.

Mike started looking through the items silently, and the developer decided to suggest:

D: Why don't you read them aloud.

MJ: It says, "Advisor to spend at least one hour per week in discussions with me." [pause] I don't like it. I don't think that's a goal of mine. [he

moves to the second item] "Fulfill my needs for personal attention, expressed 'human' concern."

D: Uh, on number one, uh, if I could ask a question, does it suggest anything that would be a goal of yours?

MJ: Well, hmm, I like, uh, the thing I like about it is, uh, I don't like the demands that it makes on Arnold. I'd feel uneasy about that. But I would feel, it would be a good way to kind of, uh, get into a rhythm of communicating.

D: Is that really an intention of yours: to have a rhythm of communicating?

MJ: Yah, I think so.

The developer added another item to the advisee's list of needs statements:

25. To have a rhythm of communicating with Arnold.

Thinking about other things the advisee had also just expressed, the developer said:

D: Let me suggest another one. The words were, as I recall--slight paraphrase, to show the reverse-- "to avoid certain demands on Arnold's time." Now, I don't know what your sense of the word "certain" . . . If you could be a little more specific about that, then that sounded like an intention of yours.

MJ: Um, well, the year-before-last in the spring term my sense of when I would come in to see him was that he was very, very busy--more busy than I would wanna be to be able to really give full attention to matters as they came along--and I didn't wanna add to that. And my guess would be that he's, that it would be, a lot of times I would come in and it was pretty obvious that his mind was on other things; and my guess would be that a better time to be dealing with him would be outside of his office time--in more of a social setting.

D: Would it then be: to avoid during-working-hours kinds of contacts?

MJ: Yah.

D: Could you put that in whatever words seem good to you.

MJ: I've just found it more fruitful to be with him in a non-working hour situation.

The developer wrote on the advisee's list:

26. To be with him in non-working hour situation

The next two items written on Todd's list were, "2. Fulfill my needs for personal attention, expressed 'human' concern" and "13. To feel that my advisor really cares about me as a human being."

MJ: . . . Both of these are close to goals that are there [i.e., that are already on his own list].

D: If they're at all different, I'd rather put 'em down than force-fit them into statements already here.

MJ: They don't add anything to what I've put down.

So his list was not changed as a result of considering those two items. Next, Mike read aloud Todd's third item, "Together we assess individual course offerings in terms of expected concrete skill to be acquired as a result of that activity." Mike noted that he usually did that himself, so he wasn't sure whether it was a goal of his for advising. Then, as he talked, he seemed to be imagining Arnold doing it with him, and Mike concluded:

MJ: In terms of the goals that I've stated, this is less important. It's like an, "Oh, yah--that would be nice, too."

D: If it is, then, something that you would like to have happen--even though it's less important--it should go on the list.

MJ: O.k. [then he laughs agreeably]

D: This is a test of completeness, and that means that we're trying to lengthen the list. You see, sometimes something like this that seems trivial and "Oh, yes" can suggest something even later on during some later processes that are more important.

MJ: Uh, huh. [he starts to read Todd's next item]
"Discuss . . ."

D: [interrupting] How would I put that down [he asks, referring to the preceding item]?

Mike dictated the following:

27. To assess possible courses in terms of their effects on my skills

Todd's fourth item, "Discuss sequences of course offerings in terms of more global skills to be acquired," was not accepted by Mike; nor did it suggest anything else to him. He next considered Todd's fifth and fourteenth items, which were related to one another: "5. Discuss, assess my entire doctoral program in terms of quantifiable skills, professional job descriptions, existing professional positions, and projected professional position. 14. Divide above [i.e., number 5] plus show relationship among them." Mike dictated the following additions to his own list:

28. To have both of us have an awareness of how I'm preparing for my future
29. To have both of us keep in mind just the future

After reading Todd's sixth item, "Discuss professional goals in terms of more general life goals and needs (suitability of fit)," Mike decided to come back to it and consider it later. "I'm not sure," Mike commented, if that's somehow stated in the others or not." To flag it, the developer wrote down:

30. See Test of Completeness, No. 6

The seventh and eighth items on Todd's list were not accepted by Mike, and he didn't think of anything else. The items were: "7. Advisor and myself to develop a fully detailed, scheduled doctoral program. 8. Provide inside, 'privileged' information as to the competencies and style of instructors."

Todd's ninth item, "Write recommendations and actively help in acquisition of both assistantship help and locating professional positions after graduation," stimulated Mike to add an item to his list:

31. To have his reactions to things I will be doing after we leave here at the end of next year

While Mike read Todd's next item half aloud, the developer wondered to himself whether Mike's latest addition might imply some other desires Mike might have. Then the developer asked:

D: Would you look to him for anything with respect to knowing how, or being able, to leave here at the end of next year? [Mike didn't reply and after about ten seconds the developer spoke again] In other words, you made a definite statement about an intention to leave here at the end of next year. [Mike nods agreement] Now, is there anything with respect to the advisement process--any expectations you have of him that relate to that deadline?

MJ: Hmm. [pause] I can't think of any.

Todd's tenth item, "Provide quarterly progress/evaluation reports to me on my educational program--Advisor actually conduct an evaluation (Fortune/Hutchinson methodology) of his advisee," was not accepted by Mike, but he did recall his intention to go over the long-term goals paper with Arnold. (The latter represents an intention which the developer never did write down on the advisee's needs list, in so many words. The developer does not recall making a conscious decision about

that.) "I think that's been stated--pretty much," concluded Mike.

Todd's eleventh item, written in two sentences or phrases, was "Help me in selecting areas, specific sources of content for developing position papers for comprehensive examinations. Help in editing and critiquing those position papers." Mark broke those into three items for his own list:

32. To have his help in selecting areas of content for developing position papers for comps
33. To have his help in selecting specific sources of content for developing position papers for comps
34. To have his help in editing and critiquing the papers

Mike read Todd's twelfth item, "Attend my comprehensives and shepherd [sic] me through," and said to the developer, "That's the next one and I go along with that one." Saying the words aloud, the developer wrote:

35. His attending my comps
36. His shepherding me through comps

As an impromptu test of completeness, the developer asked:

D: Is that: [shepherding] "through comps"--or [shepherding] through anything else?

MJ: [he laughs] Through comps.

Since Todd's thirteenth and fourteenth items had already been considered by Mike, the next one Mike read was, "15. To have relationship with my advisor outside the advising process." "It's already there," Mike commented, so no changes were made in his list.

Todd's sixteenth and final item was, "To have protege relationship with advisor."

MJ: "Protege" is [pause] like attending the guru. It's not a peer relationship, right? Protege is somebody you look up to--if you're the protege, you look up to somebody else.

D: . . . Do you like or do you want to avoid any of the things you've just said?

MJ: Yah, well, it's gotta be.

D: [smiling] I'm sort of "non-directive" here . . . ; it's unimportant for me to define.

MJ: Oh, yah, o.k. Well, I don't know if it's specifically stated, but it's almost understood that that's--well, maybe that's not so true--uh, it would be pretty hard for me to get away from that type of relationship with him.

D: And "that kind" being . . . ?

MJ: Seeing him as "the Wise Man."

D: Do you wish to?

MJ: [he laughs heartily; then they both laugh] No. Not entirely. Even though in some ways it makes me uncomfortable. No, that's fine.

D: Can you restate it so I can put it down? [they both chuckle]

MJ: [clears his throat] I think that's what this means: to have protege relationship with advisor.

D: O.k., and you would accept that verbiage, then?

MJ: Yah. [pause] Isn't that what it means?

D: Well, it means whatever [Mike chuckles]--"existentially speaking," it means what you think it means. And it means what he thinks it means. And it means what I think it means.

MJ: Yah.

D: It means all of those things. Um, now, I guess I could offer my interpretation of that verbiage; that would be: sort of "mentor-mentee" relationship,

sort of "learning to be like, learning to do the same things as," uh, the person.

MJ: Yah, that's . . . [he doesn't finish his thought aloud]

The developer wrote on Mike's list:

37. To have protege relationship with Arnold

When he had finished writing, the developer reflected aloud on the preceding discussion:

D: It's kinda curious: I have to consider each time whether or not, or just how, to respond to you because in the theory that I work with, uh, there is sort of no "right" meaning.

MJ: Uh, huh.

D: And, uh, if I defined it, that may limit what it is you may have as a real intention.

MJ: Yah.

D: So, I guess the way I resolved that was to sorta let you try to define it for yourself and then I could give an alternative--which turned out to be quite close to what you were thinking anyway.

MJ: Yah. It was important to me to know, um, what it generally means when somebody reads it.

D: And I have no information on that! [they both laugh] I don't know how I would [he changes his mind] I could go around and randomly select from the population of this area people in a sufficient size sample and give them that statement and say, "What do you think it means?" [they chuckle] Probably get a lot of different . . .

MJ: Yah, you would.

They had reached the end of Todd's test of completeness list. Mike returned to his item number 30, which referred to Todd's number 6--of which he had been uncertain before: Todd's sixth item read, "Discuss

professional goals in terms of more general life goals and needs (suitability of fit)."

MJ: [referring to Todd's list] When this person did this, did he do it pretty quickly?

D: Took about forty minutes.

MJ: It strikes me as very honest, very direct.

D: Um, the person was experienced in doing this kind of thing before.

Mike continued to look over his and Todd's lists silently.

D: Can you tell me what you're doing now?

MJ: Well, I was trying to look around to see if that appears anywhere.

D: [interpreting aloud] Particularly number six, to see if it overlaps.

MJ: But the thing I was, uh, having trouble doing it--my mind is wandering! I don't know why it's wandering!

D: Want some more coffee? Take a break?

Mike continued to examine Todd's item number six. After 15 seconds, he yawned; 30 seconds later, he spoke:

MJ: I really like that, but I don't know if it's contained anywhere.

D: If you like it, and you don't know whether it's contained, then rule of thumb would be to add it to the list.

MJ: All right, put it down, then.

For reasons which he no longer recalls, the developer didn't change Mike's item 30, but added this, instead:

38. To discuss (with Arnold) professional goals in terms of more general life goals and needs (suitability of fit)

The second "Other Person" test of completeness had been prepared by Mike's wife, Sharon.

D: Uh, now Sharon's. Um, what do you think she was responding to? What question was she trying to answer? [pause; no reply] What did you ask her to do?

MJ: I wrote down the answer on a separate sheet and showed it to her.

D: You said, "the answer"--meaning . . . ?

MJ: Uh, the question, the question--which was basically: what are my expectations.

D: Do you have that with you?

MJ: Yah. [he hands a paper to the developer]

D: [reading aloud] "Describe the things you think I want to accomplish for myself or for others in the advising process with Arnold."

MJ: And I wrote that down verbatim.

D: Um, now there are, let me analyze this, um, [he reads the handwritten statements] "To be able to communicate clearly your thoughts to others so that they are understood." Is that an expectation of yours, a desire of yours?

MJ: Uh, huh.

D: It's one you accept and would want to add to the list?

MJ: Yah.

The developer wrote:

39. To be able to communicate clearly my thoughts to others so that they (thoughts) are understood

D: O.k. Um, the next one: "To clarify your own ideas about school and future plans."

MJ: Yah, that's already there.

D: That's already on the list?

MJ: Yah.

D: Next is, uh, "listening to others & working on their words."

MJ: [pause] Yah, that's a good one. This one [he says, pointing to Sharon's previous statement, "To clarify your own ideas about school and future plans"] --this could replace at least two. These two [there is no record of which two he meant] could be crossed out and this one written down.

D: Uh, now does this [referring to Sharon's statement] add anything more than those two--that is, is there some meaning in addition to those two?

MJ: Uh, don't think so. It might even mean less than the two or three added together; but it's just that it's a more, uh, just stated very succinctly. I can think of two other ones, but . . .

D: [interrupting] O.k., let's put it down then and, rather than crossing off anything at this point, let's put it down. [Mike chuckles] I'd rather do that in the procedure.

MJ: O.k.

D: Now, when you say "school and future plans," is that a relationship? Are those two things: one is, "to clarify my own ideas about school;" another is, "to clarify my own ideas about future plans?"

MJ: Well, they're different, but they're also combination.

D: So would you deal with them separately and in combination? Are there three?

MJ: Yah.

The developer wrote:

40. To clarify my own ideas about school and future plans
41. To clarify my own ideas about school
42. To clarify my own ideas about future plans

D: O.k.?

MJ: Uh, huh.

D: Now, then, the last one [referring to Sharon's last statement, "Listening to others & working on their words"] um, I guess I'm not quite sure of the verbiage there. I can put it down exactly that way, but I can also ask that you might wanna add something in order to relate it more specifically to advisement.

MJ: Well, I think it's sort of a humanistic deal--gimmic--hearing what others are saying and using it as data.

D: What do you want to have happen? You want to be doing this in the advisement process?

MJ: Being able to hear what people are saying and use it. Um, yah, want to be able to do that in any situation.

D: Do you look, uh, at the advisement process (as you desire it to be) to be teaching you in some way to do that? Or is it an example of doing it, and you wanna have it happen in that context, as well as in others?

MJ: Want to have it happen. Not necessarily, no, I don't want it to be teaching me how to do it. Want to be able to have it happen.

The developer wrote:

43. Being able to listen to others
44. Being able to use others' words as data

At this point, Mike observed that his statement number 37, "To have protege relationship with Arnold,"--which had been suggested by an item on Todd's test of completeness list--seemed like a much more direct way to stating "almost everything from number 11 through number 22." The developer made a note of that, but didn't eliminate the latter series from the list; thus they could still be considered as needs

statements for purposes of the next steps in the methodology, and the advisee could place them in whatever priority ranking he decided was appropriate.

The next step in the methodology would have involved the advisee's identifying the "driving forces" and "restraining forces" relating to each need; in other words, he would have done a force-field analysis. However, the developer decided that this step could be omitted without jeopardy to this particular application, since reasonable tests of completeness had already been done; he felt it should be omitted because the time of the developer and the advisee should be spent instead on later steps.

Prioritization of the needs list ensued. The advisee was asked to put the list in priority order of importance to him by asking himself, "If only one of these could be accomplished, which one would it be? If only one more could be accomplished, which one would it be?" Mike quipped, "If I'd known this was going to happen, I'd never have allowed you to have written so many!" and they both laughed. Intending, however, to be sensitive to any serious concern which might underlie Mike's quip, the developer said:

D: If you're having real difficulty with doing the ordering at this point, then an intermediate step would be to say which ones fall within others--to do what you did with 11 through 22, only see if any more of those kind [sic] of combinations can be done, so that then you would be faced with primarily ordering the more general collections.

After he had looked over his list for a minute, Mike commented:

MJ: This is like an exercise in logic, for me. For

instance the number one, "Doing together things which are mutually enjoyable," in some ways seems like a good way to form a basis for some of these other goals--and yet the other goals, right now, some of them I have a stronger feeling about than that one even though that one enables the others to happen. If that one exists it's almost a sure thing that the others are going to occur--you see what I mean?

D: Now, would you say that it [referring to Mike's number one item] is a necessary condition for the others to occur?

MJ: Whew. It's not necessary, but it's a viable way; in a building sense, it's a sensible way.

This interchange suggested to the developer another criterion for prioritizing:

D: A second list that you might begin is a list based on a sequence . . . [pause]

MJ: Time sequence?

D: Yah, or a sequence of instrumentality--the logic.

MJ: [pause] What I meant to say was that if that happens [referring to statement one], it's more likely that the others are gonna happen.

D: [pause] Now, I suggested the second list as a way of resolving that particular dilemma you were talking about. It would be better, perhaps, to make a resolution on the basis of some sense of importance now, independent of the instrumental relationship.

MJ: O.k.

D: It might include the instrumental relationship, but I gave you that second option as a later thing to do in order to get you off dead center.

As he went through the list, Mike found one item he didn't think was an intention of his: "19. Arnold expressing often a warm feeling for Sharon." As Mike put it, "Number 19--that's a reality and not a

goal." Here, the developer thought of something he might call a "basic concept" of the methodology: when a person visualizes something as part of a desired set of circumstances, then it is reasonable to assume he has some intention regarding that something. So the developer immediately said:

D: Is it something that you want to have happen? Is it an expectation or desire of yours in the desired state of the advising relationship?

MJ: No, that's more like something that exists--as a determiner of 20. [No. 20 reads: "Sharon being aware of #19"]

D: Uh, huh.

MJ: In other words that's not an intention. My intention is that it'd be nice if Sharon were aware of that and, uh, used that.

Rising to the occasion rather than crossing off number 19, the developer continued:

D: . . . One alternative course of action for you would be to do something to change that, to change 19, to (let's say) to avoid it, or to get him to not express a warm feeling. O.k., now that would be an intention to have something different happen. Now, in the sense that if you don't have that intention--that is, to avoid it-- do you have an intention to allow it to happen or to do nothing to change it. O.k.?

MJ: [acceding with a sigh] O.k.

D: Is it an intention of yours to do nothing to change what is existing?

MJ: Right.

D: O.k., then I would say in that sense it is an intention of yours.

MJ: O.k.

The developer's persuasion, although successful on the face of it, in fact may have gained only a verbal assent from the advisee rather than an internal acceptance. Later, as it turned out, the advisee did place number 19 near the lower end of his priorities, along with number 20.

After Mike placed several item numbers in a column starting at the upper left corner of a sheet of paper, he then worked on the low end of his priorities. Observing this, the developer commented for the record, "That's good; I didn't suggest that, but I wish I had. Beginning at the end of the list is one way of getting the list reduced, and more manageable, by saying which ones are least important."

While Mike worked on his prioritization, neither spoke. After about eight minutes, the developer asked:

D: O.k., what's happening?

MJ: . . . I did a little paraphrasing of some stuff--well, of one. It was what I said, but when I read it, it didn't look like what I said. . . . so I made it clear.

After another nine minutes, Mike was ready for the developer to review the priorities with him. There were two columns: one labeled "Importance," the other labeled "Sequence" (see Table 3). Since the prioritization procedure was supposed to determine which demand the advisement process should respond to first, which one second, and so on, the developer asked Mike:

D: . . . The sequence column, then, is that the order in which, or the time sequence in which, you would like to have your demands worked on?

Rank	Importance	Sequence	Remarks
	Demand Numbers:	Demand Numbers:	
1	40	1	"No.37 includes 1-14, in a sense"
2	37	4	"No.40 includes 41,42,38,28,30, 29, in the following order:
3	39	25	
4	31	2-14	
5	22	23 before 22	
6	24		40
7	26		42
8	27		41
9	32		38
10	33		28
11	34		29"
12	35		
13	36		
14	25		
15	23		
16	43		
17	44		
18	15		
19	16		
20	19		
21	20		
22	21		
23	17		
24	18		

Table 3. Client's Prioritization of Demands According to Two Criteria

MJ: Mmm. No.

D: No? This is what? Logical sequence?

MJ: Logical sequence.

D: O.k., how about saying what order you would like them worked on.

MJ: Isn't that what I did?

D: I don't know. Is that what you meant by "Importance?"

MJ: Yah. I think.

D: Alright, let's test that by saying . . .

MJ: [interrupting] It's complicated!

The developer tested Mike's meaning of importance by asking:

D: If you could tell Arnold these demands in such a way that he would know exactly what you want, which one would you choose to tell him first?

MJ: . . . I think it would be 40.

D: . . . Then removing 40 from the list, if you could choose one that he would know exactly what you want, which one would it be then?

MJ: The next one on the list.

D: Would be what?

MJ: 37, the next one on the list.

The rank order of the remaining items was also the same as the rank order of the "Importance" list as shown in Table .

The next step was to test the first priority item for direct observability in terms of behaviors or states.

D: . . . Could you read me number 40, please?

MJ: "To clarify my own ideas about school and future plans."

D: Now, for [that demand], how would you answer this question: If you were to say again number 40 to me, in fact give me maybe even a written copy of it, and send me off to look for whether or not that was happening, would I come back to you with exactly the same information that you would get if you went looking for it? [pause] Simply "yes" or "no."

The question clearly was troublesome, for Mike replied:

MJ: I'm not sure I understand it. . . . If I were to send you off?

D: Yep, send me someplace to look to see whether that was happening and report back to you.

MJ: To see if that was happening to me?

D: Yah, to see if that was happening in the advising process.

MJ: Mmm.

D: Would I come back with exactly the same information that you would if you were looking at the advising process to see whether it was happening.

MJ: Uh, o.k., would you come back with the same information, um, that I would be getting?

D: That you would be getting that would tell you that it's happening.

MJ: I think I don't see the difference between the information I'd be getting that would meet the needs of number 40, or another kind of information . . .

D: [interrupting] Information to know whether it's happening, whether it's actually being accomplished.

MJ: Yah. Wheew. [He laughs.] It would seem as if it would be very hard to, uh, it's such a, it's a huge goal, right? I feel like I'm walking into another trap. [They both laugh.] Well, let's break that goal down!

D: My question is designed to test how huge it is, really. To test its concreteness. And I think that, um [pause]

MJ: Yah, it's an umbrella goal.

D: "Global," some people call those. O.k. Let me try it again, with another test of that. If you were to tell that to Arnold, would he know exactly what you mean?

MJ: No. Stated that simply, you mean. No.

The developer then provided some rationale for these procedures:

D: If you'd answered "yes" to both then they would be what I would call "fully operationalized." It would be a fully operationalized statement. That is, it would be a statement defined in terms of observable behaviors or states. It would be objective. It would be valid from your point of view, and also valid from his point of view in the sense that you would both have exactly the same meaning for it. Now a critical problem in communicating between any two people-- particularly critical in communicating the advisee's needs to the advisor--is to have a language vehicle that loses very little of the meaning, of your meaning for the rhetoric you use. Because to the extent that he would hear the terms in a frame and give different meaning to it, there's miscommunication and a less likelihood of your needs being met as a result. O.k.?

MJ: Yah.

D: So that's the reason, in a sense, for testing something.

MJ: Would the solution be to rewrite it or to break it down?

D: The next step would be to break it down since it is rhetoric that's meaningful to you.

But the methodology called for testing the observability of the other demand statements on the priority list. After testing the eighth demand statement, the developer noted that only the first three were not directly observable according to Mike. With respect to those first two--numbers 40 and 37--Mike thought that neither his advisor nor the developer would "bring back the same information" as he would, and with

respect to the third--number 39--Mike thought that the advisor would but that the developer might not. Since Mike had defined the fourth through eighth priority demand statements as being directly observable, the developer decided to stop testing for observability and, instead, to ask the advisee to weight the priority list by allocating 100 percent of "importance." This sub-step had inadvertently been skipped previously, but it's performance now would be useful in determining how much attention should be given to operationalizing the most important demand statements. Results of this allocation are shown in Table 4. As Table 4 reflects, the weighting caused number 26 to move up in priority from 7th to 4th. No other rank changes were considered although at the lower end of the list numbers 43 and 44 were allocated greater percentages of importance than some of the statements higher on the list.

This session with the advisee was drawing to a close, and the developer asked Mike to comment on the morning's activities.

MJ: Uh, before we started doing this, that was more interesting--when I was just going through this [he motions toward his life goals paper].

D: Going through your life goals.

MJ: Yah. And then, um, another thing that was kind of fascinating was seeing what happened to the ones that were added on by the "mystery guest" and by Sharon and then wondering what I was going to do with them--whether I was going to fit them into mine or put them at the bottom.

D: Where did they turn up? Let's see . . . in terms of your hierarchy, every one [Mike laughs] was added by test of completeness! That is, every one of the first . . . fourteen were added on as a result of a test of completeness.

Rank Before Weighting	Demand	Percent of Importance	Rank After Weighting	
1	40	25	1	
2	37	25	2	
3	39	10	3	
4	31	5	5	
5	22	4	6	
6	24	3	7	
7	26	10	4	
8	27	1	8	
9	32	1	9	
10	33	1	10	
11	34	1	11	
12	35	1	12	
13	36	1	13	
14	25	.5	14	
15	23	.5	15	
16	43	2	16	
17	44	1.5	17	
18	15	}	18	
19	16		19	
20	19		20	
21	20		7.5	21
22	21		22	
23	17		23	
24	18		24	

Table 4. Client's Allocation of "Importance" to His Demand List

MJ: Wow!

D: I'm glad you mentioned that, cause I don't know how soon I would have thought to look at that. Of course it's also fair to say that some of those were more general, that collected others that you had already said, so that I'm not interpreting this as added new stuff.

(The first fourteen demand statements in terms of priority--all added by test of completeness--accounted for 88.5 percent of importance. However, Mike said that the 2nd priority item, weighted at 25 percent, "included" statements 1 through 14 from his original list. At the least, then, the tests of completeness added new items accounting for 63.5 percent of importance.)

Recalling an earlier statement of Mike's, the developer asked Mike about some possible effects the C.D.I. process had had on his decision-making:

D: You said you decided to rewrite and look at your life goal thing. Well, have you made any other decisions as a result of what we're doing? [pause] For example, any with respect to Arnold, or contact with Arnold? Any with respect to Sharon?

MJ: I imagine I'll talk to her about what she wrote. And I plan to talk to Arnold. I don't know if I'll get to see him between now and Tuesday.

After they momentarily talked about Mike's vacation plans, the developer asked:

D: Did this--taking this stuff as a whole, that is: going through the goals, going through the tests of completeness--appear to you to be useful for present or future purposes? Do you think you'll make any decisions as a result of having done these particular sub-procedures?

MJ: It's more like, uh, there's more important [sic]

coming up. More stuff coming up. And maybe that's just taking a cue from the way you said it. My reaction is that it's not going to be so much an active-reactive process; it's more a thinking process; less of a doing and more of a wondering about this whole thing! In other words, the kinds of questions that you were asking and what they did, the fact that I couldn't answer some of them positively, I'm still not clear as to what that really means.

The developer did not respond to Mike's statement, but he asked:

D: Do you think that this is an approximately complete list of your expectations?

MJ: The forty-four?

D: Uh, huh--at this general level of statement.

MJ: Yes.

D: Now, there is one final step . . . are, in fact, each of these, as you look at them now, statements of your desires for the advising process? Do you accept this list, in other words?

MJ: Some of them I'd throw away.

D: You would. Because they're not yours?

MJ: Not 'cause they're not mine. Just 'cause they're so unimportant.

D: O.k., so they're way down . . .

MJ: [interrupting] They get in the way.

D: . . . at the end of the list?

MJ: Yah.

D: Can you say more about their getting in the way?

MJ: Well, they're not really that important; they're very incidental.

D: So that the time you spend thinking about them interferes with doing other things?

MJ: Yes.

Although not part of the draft methodology, another question occurred to the developer:

D: Do you sense any contradictions?

MJ: With that or something else?

D: Within the list.

MJ: Within the list. Yes, I was thinking about that the other day.

D: Did you find something the other day, and . . . ?

MJ: I was thinking about the ones we started adding on in a sense contradicted my original ones--because I think these are more tangible. They're more to the point and less involved in the kinds of [pause] . . . the 1 through 21: a lot of those were superficial in comparison with the stuff that was being added on.

D: There are some things that I don't know. Of course, one possibility is that the initial situation, as you constructed it, was such that it emphasized--in fact, forced--superficial considerations. That's one possibility. Another possibility is that you would not have made decisions to accept these had you not been through that process--that's another possibility--that there's a learning effect kind of going on: not that you didn't know these, but in the sense that you're a different person now, as a result, obviously. Don't make that too trivial or too important.

MJ: The 1 through 14 are more the kinds of things which would be up here.

D: In terms of sequence.

MJ: Sequentially. In order for these to occur successfully. They [numbers 1 through 14] would be likely to insure the others happening. So, in that sense, there's not superficiality.

D: . . . O.k., I think that really answers my questions. We're swinging along. I think that I will want to emphasize considering choice points in terms

of truncating some of the procedures. That's my sense of what may need to be done from here on out. For example, I doubt that we'll want to completely operationalize most of your demands. My guess is that we won't have the time. There wouldn't be enough payoff, for you, to do that. So I wanted you to know that I'll be kind of conscious of that problem so that we can proceed as reasonably as possible through as many steps as possible--hopefully, entirely through it.

MJ: Does it look like you're going to be able to do what you planned, what you hoped to do with it, time-wise and all that?

D: Can't tell yet for sure. I'll know more after the next step. I'll know a lot more after the next step. Very important.

This, the second regular session, had taken place on a Friday morning. The next meeting was set for the following Tuesday morning, again in the living room of the developer's home.

The third regular session between developer and advisee began with these questions by the developer:

D: Any reactions or comments or questions about what we've done so far?

MJ: Hunh, uh.

D: Had any contact with Arnold?

MJ: No.

The developer then turned to the list of demand statements:

D: . . . on that list, you have number 40 right there on the top of the list. Let's see, 40 is "Clarify my own ideas about school and future plans." And number 37 is also weighted at 25 percent importance: "To have protege relationship with Arnold." O.k. So, the question now is, um, since those were the top of the list in terms of importance of his knowing exactly what you mean . . . [pause]

MJ: [chuckling] Yah. Yah.

D: [continuing his sentence] which one we should try to break down further, first.

Some confusion ensued.

MJ: When you say those were at the top of the list in terms of his knowing what I mean, is that in addition to importance, or . . . [pause]

D: Importance was the uh . . . [pause] No, I don't think that's in addition to.

MJ: The same as?

D: I guess my recollection of the definition of importance that we used was that. If you don't remember it that way, you tell me what importance means to you.

MJ: I remember that the question was a test, a way of testing. The question was, uh, would Arnold know what I meant. Or would you know what I meant.

The developer then mis-represented the tests of observability that had been used.

D: Right, that's just a test of completeness.

MJ: O.k. Those are tests of completeness, or whatever, but I don't see how they're tests of importance.

Trying to review the definition of importance that had been used to produce the priority ranking, the developer said:

D: We had that as one of the priority bases of . . . [pause] if you could tell these demands to Arnold in such a way that he would know exactly what you want, which one would you choose to tell him first? If we haven't done an order on the basis of that, I'd like to try to.

MJ: Which one would I choose to tell him first?

D: Uh, huh.

MJ: And that's different from importance?

D: It's different if it means something different to you; but if it doesn't, don't worry about it. The question is, I guess, is it important to tell him number 40 or number 37 first, for example--those being at the top of the list the way you've done the ranking.

MJ: So you're going to have me going down just a few: the first seven to see if it really makes a difference. [pause to look at the list] I don't think it makes a difference.

D: With how you weighted them?

MJ: I don't think it does.

The developer then looked at the top demand statements to determine whether any one of them seemed to him to be closer to direct observability and therefore one which he might recommend that the advisee choose first for purposes of this field test:

D: O.k., let me look at them and see if I can make a judgment on them. No, I don't think that it makes a difference [which one the advisee chooses] in terms of operationalizability. So, you choose whichever one you like.

MJ: To break down?

D: Uh, huh.

MJ: [pause] Let's start with 40, "To clarify my own ideas about school and future plans."

To test whether that demand statement was a unitary one, the developer said:

D: Let me ask you about that one, whether that is really two things: one part being "to clarify my own ideas about school" and the other part being "to clarify my own ideas about future plans."

MJ: Yah. That's what it is. It would be two.

D: O.k., then which part of those, which one of those two would you choose?

MJ: [after half a minute] Trying hard to separate them. Probably future plans.

Meanwhile, the developer had added two statements to the advisee's list:

41. To clarify my own ideas about school
42. To clarify my own ideas about future plans

The developer next began the operationalization procedures:

D: O.k., you're going to work with "To clarify my own ideas about future plans," number 42 on the list, which is a sub-part of number 40. I would like you to imagine a situation, a hypothetical situation, involving the advisement process in some way; and in that situation, there's you and there's Arnold and there's whatever kind of environment seems appropriate, may be indoors, might be outdoors, might be on a retreat, for example. And in that situation, clarification of your own ideas about future plans is taking place; it's happening. In fact, it's happening as much as it could possibly happen--the epitome of clarifying your own ideas about future plans. What I want you to do is to examine that hypothetical situation and take note of the things that tell you that clarification of your own ideas about future plans is taking place, and to write down specifically the things that tell you that it is taking place.

MJ: Is that different from the things that are going on? I mean, the things that tell me are taken from the things that are going on, right?

D: Uh, huh. It could be the things that are going on.

MJ: It could be the things that are going on.

D: Write down anything you see that tells you that it's happening.

MJ: O.k.

D: I'll give you, uh, plenty of time to exhaust the situation.

The audio tape recorder was shut off at this point. During the following fifteen minutes, the advisee wrote the narrative shown in Figure 8. Without knowing or attempting to know what the advisee had written, the developer proceeded to the second hypothetical situation as soon as the advisee seemed to have exhausted the first situation:

D: Now what I'd like you to do is to imagine a second hypothetical situation relating to the advising process again. You're in it. Arnold is in it. It could be indoors or outdoors. In that situation, there is no clarification of your own ideas about future plans going on, at all.

MJ: Exact opposite?

For reasons he does not recall, the developer did not respond to Mike's question, but said:

D: Write down the things that you see going on that tell you there's no clarification of your own ideas about future plans.

Again, the tape recorder was shut off. After about fifteen minutes, the advisee seemed ready to move on to a next step. He had written the narrative shown in Figure 9. Without seeing or hearing what the advisee had written, the developer proceeded to the first test of completeness for the advisee's operationalization. The developer explained that this test of completeness involved providing the advisee with results of other people's first and second hypothetical situations with respect to this particular demand statement. In this instance, the developer served as the test-of-completeness person with the following instructions for the advisee:

D: . . . when I tell you what I see, see whether or not it's on your list or, rather, think about whether

First Situation:

Things I imagine to be happening seem twofold so far.

Me working on what I expect to deal with in future plans, attempting to explain and getting help from Arnold in expressing them.

From there his reactions which might take form of his immediate reactions or be more of a relating his past experiences to what I'm saying or explaining what was important to him in earlier years and what is important to him now and in future (I'm speaking of his own "plans") . . . An example of this has been when he speaks of his plans to build his own house.

An alternative sequentially would be (my) asking about past experiences of his, hearing his description and evaluation and then my reacting to what he is saying and being able to talk about how it (what he is saying) fits with my plans which I could then talk about.

In all of this I would be interested in knowing those parts of my future plans which he has had or has for himself and how he feels about them.

Figure 8. Client's Narrative Response to First Hypothetical Situation Concerning "To Clarify My Own Ideas About Future Plans"

Second Situation:

In reverse results fantasy I see distractions (interruptions) either by other people or natural circumstances. I see Arnold intent on other matters, thus distracted from my descriptions. I see me not knowing how to ask him about his experiences or his not wanting to share them or not seeing the relevance of them to my needs.

Another possibility which I don't really think too likely any more is my mistaking his thoughtfulness and unusually slow pattern of response to signify lack of interest or inability to grasp what I mean.

I might also sense that it just might not be a moment in which he can respond to me: that his thoughts are elsewhere.

Figure 9. Client's Narrative Response to Second Hypothetical Situation Concerning "To Clarify My Own Ideas About Future Plans"

or not it's something that's also part of what you mean by that. And if it is, then on the next sheet of paper, add it. If, on the other hand, it doesn't mean anything to you at all, ignore it. Or it might suggest something that you hadn't seen in the first situation that really is part of your meaning for "clarifying your own ideas about future plans." Or it might simply make you mad . . .

MJ: [interrupting with a laugh] But if it's identical to something I have, there's no reason to put it down.

D: No.

The developer then read aloud some statements that he had developed from his own first and second hypothetical situations while the advisee was working on the advisee's first and second situations. The developer's statements, analyzed into what he thought were unitary items, are shown in Table 5 . While the developer read, the advisee wrote the following phrases:

- Advisor asking me to write down future plans
(Arnold once did this and it might be a good starting point for discussion.)
- Me writing them
- Mutual analysis
- Possible reworking
- Definition of clarification
- Iteration going on
- Life goals compared to plans
- Talking about the past
- Not thinking about the future
- Feeling surroundings

First Situation:

- Advisor asks me to write down "my own ideas about future plans"
- I create a written narrative description of future plans.
- My descriptions are analyzed by us together. I do a new version of some part.
- I define what I mean by clarification.
- We're interacting in an iterative process.
- I'm thinking of my life goals--the things which my plans are supposedly going to help accomplish.

Second Situation:

- We're talking about the past.
 - I'm not thinking about the future.
 - I'm feeling my surroundings--the clear air, sunshine, slight breeze, open fields of grass, no clouds.
-

Table 5. Developer's (as "Other Person") Test of Completeness Responses to First and Second Hypothetical Situations Concerning "To Clarify My Own Ideas About Future Plans"

The next step was for the advisee to do a second test of completeness:

D: . . . Which is to go back to each of the hypothetical situations in sequence. Re-examine them and take note of things you saw in them that you didn't write down. And seriously consider the implications of your having not written them.

MJ: In other words, I made a choice between things I put down, and things I didn't put down from what I saw?

D: Uh, huh.

MJ: Can you say it again? The whole thing?

D: Yah. Re-examine the original hypothetical situations for the things that you did not write down the first time. There were lots of things that you didn't write down. Seriously consider the implications of not writing them down.

Mike said he couldn't think of anything that he had not already written down, and asked what an example would be. The developer gave him an example, but he still didn't think of any additional dimensions. After about two minutes the developer went on to the third test of completeness:

D: I want you to think of dimensions that have nothing to do with clarifying your own ideas about future plans, and then seriously examine whether or not they do.

After a few minutes, the advisee commented, "It was hard to really think of things."

D: How many things did you add as a result of that process?

MJ: Six.

D: You actually thought of six things.

MJ: Yah--they were crazy, in the sense of what's common. Not common, but acceptable, almost.

D: And crazy in the sense they were unacceptable kinds of things?

MJ: Not that they were unacceptable. It's just that it would be strange to think of them in that realm.

The advisee had written, "Don't know whether this is defined as something done with Arnold or not," and, underneath that, these phrases:

- Rock climbing
- Outward Bound Experience
- Building a log cabin
- Eating an ice cream cone
- Buying a new car
- Learning to play a guitar

Still without reading what the advisee had written, the developer said:

D: . . . Now what I'd like to do is go back to the list and put these things together. . . . I want to get things into, sort of, unitary dimensions. I don't know what form you have it in, but it looks like some type of sentences, complete sentences; and if there's something in each sentence, then that's very simple to break out and all I have to do is just go over it.

Figure 10 shows the points at which the developer divided the advisee's narrative statements (from the two hypothetical situations) into possibly unitary items. Then the developer read aloud the advisee's additions due to tests of completeness. When the developer read "life goals compared to plans," the advisee added the word "examining;" therefore, with the developer's analysis, that statement was divided into two parts: "examining life goals" and "compared to plans." The

First Situation:

Things I imagine to be happening seem twofold so far.

Me working on what I expect to deal with in future plans,/ attempting to explain and getting help from Arnold in expressing them./

From there his reactions which might take form of his immediate reactions or be more of a relating his past experiences to what I'm saying/ or explaining what was important to him in earlier years/ and what is important to him now/ and in future (I'm speaking of his own "plans") . . ./ An example of this has been when he speaks of his plans to build his own house./

An alternative sequentially would be (my) asking about past experiences of his,/ hearing his description/ and evaluation/ and then my reacting to what he is saying and being able to talk about how it (what he is saying) fits with my plans/ which I could then talk about.

In all of this I would be interested in knowing those parts of my future plans which he has had/ or has for himself/ and how he feels about them.

Second Situation:

In reverse results fantasy I see distractions (interruptions) either by other people/ or natural circumstances./ I see Arnold intent on other matters,/ thus distracted from my descriptions./ I see me not knowing how to ask him about his experiences/ or his not wanting to share them/ or not seeing the relevance of them to my needs.

Another possibility which I don't really think too likely any more is my mistaking his thoughtfulness/ and unusually slow pattern of response to signify lack of interest/ or inability to grasp what I mean./

I might also sense that it just might not be a moment in which he can respond to me: that his thoughts are elsewhere.

N.B. Slash-marks (/) reflect developer's analysis of the responses into components, as approved by client.

Figure 10. Client's Narrative Response to Second Hypothetical Situation Concerning "To Clarify My Own Ideas About Future Plans"

advisee then added another two statements:

- Keeping life goals in mind
- Being able to get life goals out in the open

When the developer read the advisee's items added as a result of "trying to think of things having nothing to do with the demand," the advisee explained that "rock climbing, Outward Bound experience, and building a log cabin" had the common dimension of "contact with nature," which in turn exemplified

- Identifying important satisfactions to plan for

"Eating an ice cream cone" suggested the dimension of

- Identifying less essential satisfactions

"Buying a new car" suggested

- Identifying things to avoid in future plans

And "learning to play a guitar" suggested

- Something important to consider making plans for

The developer next asked the advisee to go over the statements and additions to determine whether he accepted the analysis, to determine which ones, if any, were fully operationalized (the advisee decided none were), and to place the statements into a ranking by "importance." The advisee accepted the analysis, but preferred to rank the statements in terms of "sequence." After looking at his original narrative responses to the two hypothetical situations, he decided they were expressed in a "logical sequence;" he then determined an order of "importance" by ranking ten statements as shown in Table 6 . By not ranking the remaining statements, he created an "all other"

-
1. Definition of clarification
 2. Advisor asking me to write down future plans (Arnold once did this and it might be a good starting point for discussion)
 3. Me writing them
 4. Mutual analysis
 5. [Arnold] explaining what was important to him in earlier years
 6. [Arnold explaining] what is important to him now
 7. [Arnold explaining what is important to him] in future (I'm speaking of his own "plans")
 8. Examining life goals
 9. Possible reworking
 10. Iteration going on
 - [11. All other components of "To clarify my own ideas about future plans"]
-

Table 6. Client's Prioritization by "Importance" of Components of "To Clarify My Own Ideas About Future Plans"

category of least priority.

A choice-point occurred: whether to begin operationalizing the most important dimension of "to clarify my own ideas about future plans," or to return to the original list of demands and proceed to break down the next most important one, "to clarify my own ideas about school." After breaking down that demand at least one level, the developer suggested, then the next three demands could be broken down in turn, with the result that the advisee would then have partially operationalized the demands that accounted for about 70 percent of importance.

D: . . . Now the consequence of doing the four that account for 70 percent is that you would at least be working with breadth of communicating with your advisor, potentially making choices later on, then, about what to go into any detail about. Choice of "breadth" versus "depth" here. . . .

MJ: [he chuckles] Funny words to say.

D: "Breadth" and "depth"?

MJ: Yah. Breadth, not depth; depth, not breadth.

D: Yah. Yah. Very inexact.

MJ: [he chuckles] No, they're neat words. I would tend for breadth, not depth. But that's, I dunno, I don't think it's that important to me which we do. You might be in a better position to decide.

D: I guess I would probably recommend the breadth at this point since you're dealing with only four at that level, which then will give you a greater choice of what to operationalize more fully.

The advisee chose to operationalize his demand "to have protegee relationship with Arnold."

D: So you're going to construct a hypothetical situation in which you're having a protege relationship with Arnold. In fact, it's the most of that relationship that you could possibly have, that you would want to have with Arnold. And take note of what's happening and write those things down.

After the advisee seemed to have exhausted the first hypothetical situation, the developer asked him to imagine a second situation in which there was no protege relationship with Arnold. The developer read what the advisee had written and divided the narrative into presumably unitary statements with the advisee's approval as shown in Figure 11.

The third session ended at this point. About two hours of the session had been spent in operationalizing the advisee's highest priority demand to the first level of breakdown and then prioritizing the dimensions. The final half-hour had been spent on the first and second hypothetical situations for "to have protege relationship with Arnold."

The fourth regular session between the developer and the advisee began with the operationalizing of "to clarify my own ideas about school."

D: Now, create in your mind a hypothetical situation in which you are clarifying your own ideas about school.

MJ: Is this, uh, am I allowed to ask questions?

D: Sure.

MJ: I don't have to be with anybody--is that what you're saying?

D: You don't have to be with anybody--though we were talking about the advisement process. The

First Situation:

Learn of experiences (variety,/ failures,/ successes) in Arnold's life/

and of expectations he has for his future/

Discuss a common topic in order to compare ideas/ reactions (example would be discussing a book or goings on at School of Education)/

Be able to describe what I plan to do/ and be able to ask for advice about what Arnold might do in the same situation/

Not sure about where this is taking place--is it important the situation be formal, informal? (asking myself)

Second Situation:

Arnold unaware of/ or has forgotten about my interests/ and concerns/ (my contemporary activity)

I am explaining my problems in a bemoaning manner

I know very little about what Arnold is thinking

Arnold avoids giving negative feedback

Arnold avoids giving positive feedback

Arnold avoids me

N.B. Slash-marks (/) reflect developer's analysis of the responses into components, as approved by client.

Figure 11. Client's Responses with Developer's Analysis for "To Have Protege Relationship With [My Advisor]"

important thing about it is it's a situation in which you are clarifying your own ideas about school, really clarifying them. What is it that you see in that situation that tells you that you're clarifying your own ideas about school? Write those things down.

For the second hypothetical situation, the developer gave these instructions:

D: Create in your mind a second hypothetical situation--in which you are not clarifying your ideas, your own ideas about school. There's no clarification of your own ideas about school at all. What is it that you see in that situation that tells you that there is no clarification of your own ideas about school? I suggest that situation have something to do either with a similar situation as the first one or more directly related to the advisement process.

The advisee's responses to the two situations are shown in Figure 12.

When the advisee finished his response to the second situation, he told the developer of an experience the advisee had had that morning. The anecdote suggests some effects the C.D.I. process was having on him:

MJ: A girl at school [i.e., at a private school where Mike and his wife are house parents] came over today after breakfast, and she was showing me her catalog for the school she's going to next year-- she'll be in tenth grade in the new school. So we were looking at all the courses, and I was finding all kinds of neat courses that I would have loved to have taken. So I was saying, "Aw, you ought to take these." It's all very similar to the idea I, I mean, I realize in this [second hypothetical situation] that that's what I was doing: wasn't really considering what she might be interested in. That's more like you're re-living your own school experience, or re-planning for your own, as opposed to dealing with what they might want to do.

D: Yah. Scarey, isn't it?

MJ: Yah.

First Situation:

See school as it relates to long term goals/ break down possible areas of interaction/ set up a list of possible activities/ rate them/ and avoid those with lowest ratings.

Be able to talk about some of the reasons behind the rank of the various/ and get some feedback as to whether those which I've ranked highest are most appropriate for long range goals.

Second Situation:

Someone is telling me how I should plan my education,/ not considering my plans/ or goals for future/. Either working with idea of traditional components of education/ or perhaps saying, these are the "in" courses/ or teachers to work on (with)./ Someone is using me to replan their school experience./

N.B. Slash-marks (/) reflect developer's analysis of the responses into components, as approved by client

Figure 12. Client's Responses and Developer's Analysis for "To Clarify My Own Ideas About School"

D: But if you're able to then think of yourself as a stimulus to the other person and be conscious that you want that person to know that it's just a stimulus . . .

MJ: Yah. Uh, huh.

D: Sometimes we're caught in roles that we can't be the stimulus. We don't see ourselves as being the stimulus because it's necessary to control the outcome.

MJ: Yah.

D: That's working both ends against the middle.

MJ: Hmm, that's really interesting 'cause I never would have realized that that was what was going on, this morning. I've just gotten that kind of perspective out of it.

The developer planned to provide the advisee with some test-of-completeness material from other persons for the next session, so he suggested that the advisee go no further with this demand during the current session. Instead, he advised going on to the next highest priority demand:

D: What I would like to do is to get someone else to react to, that is, to create hypothetical situations so that hopefully by Friday I'll have some input from other people for you in relation to the things that we've done so far. Now, there's another demand, which is "To be able to communicate clearly my thoughts to others so that the thoughts are understood." And that one was one of the important ones on your list. In fact it was third in terms of percentage of importance. . . . So what I would like you to do is to, um, to create in your mind a hypothetical situation in which you are able to communicate clearly your thoughts to others so that the thoughts are understood. You probably should write this down: "to be able to communicate clearly my thoughts to others so that they are understood."

The advisee was ready to do the second hypothetical situation

after only three minutes (compared with about fifteen minutes each for the previous operationalizations).

D: Now think of another hypothetical situation in which you are not able to communicate clearly your thoughts to others so that they are understood. There is a complete absence of communicating your thoughts clearly to others so that they are understood. What are the things that you see in that hypothetical situation that tell you that what you're looking for is absent? Write those things down.

Figure 13 shows what the advisee wrote in response to the foregoing stimulus situations.

The developer reviewed aloud the steps that had been accomplished in operationalizing the most important demands. Then he asked the advisee:

D: . . . have you been doing anything that relates to advisement, as a process, or to the content of yourself in relation to the school, in relation to future plans, in relation to anything, since we got together last time? What I'm doing is sort of checking to see whether there's anything that you think you've done as a result of . . .

MJ: [interrupts] um, I've been thinking a lot about priorities for me, say for next year.

Mike described some learning experiences he would like to have during the next year.

D: What was it that prompted you to consider that?

MJ: I think [the C.D.I. process] just kind of shook up, in general, my thinking about what's important and who is it important for--what I'm doing. In other words do I do it for myself or for the benefit of others--peer pressure and stuff like that. And, I think, a lot of times, going through this makes me think that there are more possibilities than I keep in touch with.

First Situation:

Know the particular other(s) fairly well

Feel at ease with person and environment

Non-threatened (feel)

Possibly have communication not be primary goal (focal point) of occasion rather be doing or in the process of some activity while communicating

Usually communicate better when I'm not consciously trying to or see myself as having to communicate in a particular situation

A lot of this (above) assumes verbal communication which I don't normally enjoy as much as communication through a variety of means.

Second Situation:

I or other person replaces communication with the concept of agreement, thus setting up a barrier for communications: not wanting to listen but to convince.

More generally I'd feel threatened, so much so that I rely totally on verbal communication and can't remember proper vocabulary to express thoughts and thoughts are so garbled I can't understand them myself. That's when I know I'm not communicating

Figure 13. Client's Responses for "To Be Able To Communicate Clearly My Thoughts To Others So That They Are Understood"

D: Possibilities of what?

MJ: Doing whatever I want to--than I'm aware of. That I kind of get into a chain of events, a sequence of events, and that, in fact, I could get a lot more variety of choices, some of which might make a lot of sense to me and nobody else. But I'd be interested to talk to Arnold about it.

Mike said he felt what he had just said was a way of talking about the "school and future plans" demands.

The developer decided to outline next steps in the C.D.I. process.

D: O.k. The possibilities of the things to do next are something like this. There's the completion of the next operationalization step involving input from others for several things we've mentioned--like "To have protege relationship with Arnold," "To be able to communicate clearly my thoughts to others so that they are understood," "To clarify my own ideas about school," and "To clarify my own ideas about future plans." There are those things, and those depend on outside stimulus. We could do the first couple of steps for some other component. I have in mind after completing the stimulus input and completing the operationalizations at least in terms of the five steps for each of the things I just talked about, after we do that, then collecting things, having you review all that we've done in terms of: is it what you accept, does it reflect you, is it valid for you, and then make decisions about communicating that to Arnold. So that, perhaps, by the end of [the next session], we will have determined more or less what gets reported to Arnold, collected in terms of your priorities.

With the foregoing words, the developer apparently took the initiative on coming to closure on the whole process. He did not seem to allow the advisee to say how much further to go and when to quit--except for the current session, which Mike said he would like to end at this point although he was ready for more sessions on other days. The next meeting was set for three days later.

Between the fourth and fifth sessions the developer obtained three people's responses to their own first and second hypothetical situations for "To have protege relationship with my advisor," one person's response for "To clarify my own ideas about school," and one person's response for "To clarify my ideas about future plans." The developer's intention had been to obtain only one person's responses for each demand, but when he asked one person to participate in this field test, two others who were present said they would be interested in participating also. Those three produced their test-of-completeness material in about twenty minutes in the developer's presence. The other two persons did not produce their material in the developer's presence, and he did not find out how long it took them.

The fifth regular session began with the developer outlining what he wanted to accomplish during the session:

D: Here are the things I'd like to do this morning. I want to complete operationalizations--at least to the level that we've done for the major needs that you have for the advisement process: particularly with the protege relationship, with clarifying your own ideas about future plans and school plans, and possibly with communicating your thoughts clearly. I have other people's operationalizations for the first three; and all the rest of them, I don't. Then I want to test those dimensions at that level for whether or not they're operationalized. I want to put in priority order the operational dimensions at that level. I'd like to go to the third level on something, if we can. And then I want to go back over the list of needs, and have you review that and accept the order or change it and the weightings as well.

MJ: Uh, huh.

D: And then we'll decide on the form and content of what goes to Arnold. O.k.?

Mike nodded assent.

With the intention of keeping this process open, the developer chose not to return to the advisee his own previous responses until after the advisee heard the test-of-completeness material from the other persons:

D. . . . rather than my giving you back the thing that you did, right at the moment, why don't you just listen to the dimensions of other people's meanings
. . . .

MJ: [interrupts] O.k.

D: . . . for "to have a protege relationship with my advisor." And write down--I'll pause enough--write down the ones, the dimensions that you accept as part of what you mean by "To have a protege relationship with Arnold," or anything else that might be suggested to you. If it doesn't do anything for you, why, you can tell me when to move.

MJ: O.k.

As read aloud by the developer, the test-of-completeness material from "Person A" is shown in Table 7, from "Person B" is shown in Table 8, and from "Person C" is shown in Table 9. The developer read all three persons' items from their first hypothetical situations before reading any items from their second hypothetical situations. Table 10 shows what the advisee wrote down while items from the first situations were read. Table 11 shows what he wrote while items from the second situations were read.

Having conducted the first test of completeness (other persons' lists), the developer gave the advisee his previous responses and proceeded to the second test of completeness:

First Situation:

1. He is making verbal suggestions about my behaviors;/ attitudes,/ work, ideas
 - a. Some things he says are good
 - b. Some things he says are bad; change them
2. Verbal reinforcers used frequently, or when needed, e.g., "That's good, You're O.K., You're on the right track"
3. Criticizes constructively, i.e., instead of saying "That stinks," he says "That stinks because . . . and these are what you might do to correct it . . ."
4. We discuss point by point my work, or task, at hand
5. I am genuinely interested in his work, e.g., I read his stuff, make comments & criticisms, suggest changes
6. Tell him (and mean it) that I tell others about his work and how it is good, useful, etc.
7. I trust his values & judgements as evidenced by/ my following his suggestions, etc.
8. Mutual respect
9. He's readily available to discuss work, problems, program, etc.
10. He makes recommendations about me, my skills and my abilities to others

Continued on next page

Table 7. Person "A's" Test of Completeness
Responses for "To Have Protege
Relationship With [My Advisor]"

Second Situation:

1. I am not just a "yes man to him
2. I am not his slave, serf, or errand boy
3. I am not intimidated by him
4. I am not anxious or nervous with him, e.g. not sweaty, shakey, apprehensive, etc.
5. I can't find him or get time to sit down with him
6. He reads my stuff and just says, "Yup" without criticism, either good or bad
7. He makes fun of or ignores my suggestions and advice and criticisms and vice versa
8. Jealousy
9. Mistrust
10. Acts in a hurry all the time to get through our appointments and rushes me by saying "Hurry up" or "I've got to go in a minute," etc.
11. We are both working (cognitively) in completely different areas
12. Nags a lot rather than letting me work on assignments in my own style

continued from previous page

Table 7. Person "A's" Test of Completeness
Responses for "To Have Protege
Relationship With [My Advisor]"

First Situation:

Drinking coffee together at meeting.

We challenge each other's ideas.

He will consistently use free time to help me out when I need it.

Mutual respect for each other.

At each meeting both of us have out in the open agendas that are dealt with.

He comes to me for advice in areas where I have some expertise.

We work together on projects.

This working together is on projects in which we have mutual interests.

He includes me in his consulting jobs where he can (workshop presentations, etc.)

Second Situation:

The work I do is what he wants me to do, and I do not have to enjoy or like doing it.

He dictates his ideas.

He expects blind obedience to his desires.

He has a habit of turning meetings into lectures; him to me.

I am expected to take his courses.

I have trouble making an appointment to see him.

I am not allowed to use his office when I am at school.

He is a neat, orderly man, for whom everything has its proper place--even me.

I had no choice in my advisor, he was assigned.

I take everything he dishes out, feeling honored, as he expects, that he is taking so much of his time with me.

Table 8 . Person "B's" Test of Completeness
Responses For "To Have Protege
Relationship with [My Advisor]"

First Situation:

Close contact on all aspects of work.

Advisor recommends and reviews books that have helped him.

Advisor sets down course of development in addition to helping advisee in his course work, interest work.

Advisee sits in on meetings with advisor and others--project managers or whatever.

Co-author articles, papers, etc..

Advisee helps teach.

Advisee works with advisor in same office.

Advisor has limited number of advisees.

Meetings are on a 1 to 1 basis.

Student matches his style to advisor.

Second Situation:

Advisor has many students under him--little personal contact.

Advisor isolated--away from school and out of touch generally.

Advisor gives course of studies to advisee and that's it.

Advisor gives articles, papers, etc. without explaining them or going over them with student.

Advisor is cold, impersonal, distant.

Advisor is critical but non-supportive.

Advisor has non-academic contact, i.e. has social contact.

Advisor talks to advisees in group meetings when contact is made.

Table 9. Person "C's" Test of Completeness
Responses for "To Have Protege
Relationship With [My Advisor]"

Verbal suggestions about my behavior
Verbal suggestions about my attitude
Verbal suggestions about my work
Verbal suggestions about my ideas
Good-Bad (change those)
Constructive criticism
Point by point discussion of work at hand
Genuine interest in his work
I read his stuff
I comment on it (criticisms)--suggest changes
Tell others about his work
Trust his values
Mutual respect
He's readily available to discuss
Makes recommendations about me, my skills & abilities to others
Close contact all aspects of work
Books suggested
Course of development
Attends advisor's meetings
Co-author articles, papers
Advisee helps teach
Works with advisor in same office
Limited number of advisees
1 to 1 meetings
Student matches his style to advisor's
Ideas challenged
Uses free time to help me out
Agendas in open to be dealt with
Comes to me for advice
Work together on projects of mutual interest

Table 10. Client's Additional Items from First
Situation Tests of Completeness Responses
of Persons A, B and C for "Protege"

Not just a yes man
Slave, serf, errand boy
Intimidation
Anxiousness, nervousness
Time (he has none)
Reads my stuff with no feedback
Ignores my feedback
Vice-versa
Jealousy
Mistrust
Acts in a hurry
Different areas of interest
Isolated outside of school
Non-supportive
Time of his being taken up--real hang-up of mine
An actual feeling or worry in relation to Arnold

Table 11. Client's Additional Items from Second
Situation Tests of Completeness Responses
of Persons A, B and C for "Protege"

D: . . . So, for the next step, what I'm going to ask you to do is to recall the original hypothetical situations . . . and look at those situations again and note that there may have been some things that you didn't write down when you actually saw the situation and seriously consider the implications of your not writing those down. In other words, the things that you saw but didn't write down perhaps really are part of what you mean by "having a protege relationship with Arnold."

MJ: O.k.

This, the second test of completeness, produced no additional items for the advisee.

The developer continued to the third test of completeness:

D: In the fifth step, as before, don't think about it, just do it. Try to think of something that has nothing at all to do with having a protege relationship with Arnold and seriously consider whether or not it does.

The third test of completeness produced some items which will be discussed presently. Before looking at any of the new dimensions, the developer asked:

D: Are all of the things that you've written down on those lists dimensions of what you mean by "having a protege relationship with Arnold"?

MJ: Uh, my feeling was when I was reading them that it was more of a "Wow, these are all worth considering." So the ones I put down were definitely worth considering and I don't have any sense of, for instance, priority of what's really important and what isn't and so on.

D: That's alright. The main thing is that those definitely be things that are part of your meaning.

MJ: Yah.

D: That you accept as part of "having a protege relationship with Arnold."

MJ: Yeah. [pause] I feel like I have information overload. It's more than writing it down; it's thinking about it, too. It really is interesting-- this stuff.

The developer next reviewed what the advisee had written during the first two tests of completeness. Then he read the material from the third test of completeness:

- Smoking a pipe
- Tying me [sic] shoes
- Artistic creation (painting drawing sculpture)
- Talking about John^{*}
- Fixing VW
- Drinking coffee
- Working for George^{*}

About those items, the developer asked the advisee:

D: . . . Did those represent things that actually do have something to do with "protege relationship"?

MJ: Those were the, the "way out" [things] . . . and I circled one.

Mike had circled "Working with George^{*}", and the developer asked him to say how "working with George" related to "protege relationship."

Mike replied:

MJ: I was thinking that, I guess, that it gets in the way of the relationship with Arnold. [pause] And it's, uh, a lot of the negatives remind me of, of, the list of negatives made me think about that --the relationship with George.

* Developer's pseudonym for a person named by the advisee

The developer then wrote:

- Gets in way of relationship with Arnold
- Reminds me of a lot of the negatives

For the moment, nothing further was done with the "protege relationship" demand.

Next, the developer provided the advisee with some other people's operationalizations of "to clarify my own ideas about school" and instructed the advisee:

D: . . . just as before, if this is something that you accept as part of what you mean by "to clarify my own ideas . . ."--fine. If not, ignore it, or write down whatever is suggested.

The material for this test of completeness is shown in Tables 12 and 13. The developer read aloud, with pauses between each item, both sets of these other persons' responses to their first hypothetical situations; then he read their responses to their second situations. During this process the advisee wrote:

- Early in morning (part of protege relationship)
- Time limit for interview (")
- Write and speak my own ideas about school
- Think of ways that school can fulfill and is fulfilling my purposes
- Ways school fulfills purposes
- Things school does

The developer then asked the advisee to re-examine his own original hypothetical situations for this demand and to write down anything he might have previously overlooked that was part of what he meant by

First Situation:

Time--early in the day (8:00-10:00 AM)
Setting--School of Education
Private office, desk, desk chair, side chairs, small table,
telephone, typewriter, windows
Windows and door open
Telephone not ringing and doesn't ring in course of meeting
Not seated at desk
Advisor initiates conversation, conversational tones
Minimum of reference to related literature
Advisor supportive but comfortably critical of thoughts
Conversation free and easy
Perhaps interruption by person known to both of us enabling
either time to think for one of us or perhaps actually contri-
buting related input
Definite time limit for interview (advisement)
No set time for next meeting but knowledge that advisor accessible

Second Situation:

Papers not related to advisement distractingly obvious
Constant referencing to watches because meeting was unscheduled
Constant traffic thru office
Coffee not readily available
Not facing each other
Walls barren
No smoking allowed

Table 12. Person "D's" Test of Completeness
Responses for "To Clarify My Own
Ideas About School."

First Situation:

I write my own ideas about school.
I speak my own ideas about school.
I look at what I wrote.
I listen to what I spoke.
I analyze implications of what I wrote.
I analyze implications of what I spoke.
I repeat the writing of my own ideas about school.
I repeat the speaking of my own ideas about school.
I think of ways that school can fulfill my purposes.
I think of ways that school is fulfilling my purposes
I think of purposes I have for school.
I think of things that school does.
I think of things I do in relation to school.
I think of reasons for doing those things.
I compare the reasons with the purposes I have for school.
I add anything I want to the purposes I give for school.
I think about implications of doing the things I do where the reasons are not related to my purposes for school.

Table 13. Person "F's" Test of Completeness Responses for "To Clarify My Own Ideas About School."

clarifying his own ideas about school. The developer left the room to answer the telephone and returned about two minutes later. The advisee said:

MJ: Um, o.k., I can't think of anything, for one thing. And I, uh, don't think anything I wrote down makes a major difference in what, anything I've written from what you'd listed, what you described, radically changes or improves on what I wrote for this particular one.

The developer commented, "the different steps work differently for different concepts at different times."

MJ: I think it's better doing it this way, though. Do you remember the other time we did it, uh, and I had my list right in front of me for comparison; I don't think it's good to do it that way as a procedure.

D: No, it's better to almost forget what you did in the first two situations.

MJ: Yah, and then go back and look at your list later.

Of those phrases that the advisee had written when asked to review his original situations, he decided that the first two of them related less to clarifying his own ideas about school than to having a protege relationship with his advisor. He explained:

MJ: . . . if there's going to be a meeting at all, a School of Ed-type meeting, that it would be a good thing to do maybe systematically, and get it done early in the morning--sort of as a reason to get to school in the morning, stuff like that.

D: Oh. Now I hear you. I'm not sure I see. [they both laugh] But it is not important that I see. That's part of what you mean by the protege relationship with Arnold.

MJ: Yah.

D: That's fine. O.k., now . . .

MJ: [interrupts] I think he likes early morning meetings.

D: O.k., I guess now I understand better. It's more concrete to me. You knew what you meant.

MJ: Uh, huh.

D: Um, o.k., now, the fifth step then is to think of something that has nothing to do with clarifying your own ideas about school and seriously consider whether or not it does.

Figure 14 shows what Mike wrote in response.

When the developer asked Mike to say how the things that he had written related to clarifying ideas about school, Mike's explanation suggested that he was now operationalizing a different concept: namely, clarifying his own ideas about schools (plural). Although he apparently had not recognized the difference as such until the developer asked him, Mike acknowledged that there had indeed been a change in the concept he was working with and that the change had probably occurred at the point in the previous activity when he "was unable to think of anything." Mike answered "Yes" when the developer asked him whether "clarifying your own ideas about schools (plural)" was one of his needs for the advisement process. (The developer later failed to add it to the list of demands.) Immediately, the developer instructed the advisee:

D: Alright, now, think of something that has nothing to do with clarifying your own ideas about school and seriously consider whether or not it does.

The advisee's response to this stimulus is shown in Figure 15.

Next, the demand "To clarify my own ideas about future plans" was tested for completeness:

Turning on lights)
)
Throwing away paper) immediately came to mind and

seem a suggestion of the way an institution consumes so many supplies and has energy demands which desensitize individuals such as I in the area of our awareness of what we need compared to what we want for a purposeful, sane life. When you work in an institution you (I) have access to so much that I become spoiled, out of touch with my real needs.

Figure 14. Client's Superceded Response to "Nothing-to-Do-With-It" Test of Completeness for "To Clarify My Own Ideas About School"

Speaking Spanish

Carpentry (make time for this & leather)

Making money

Necessary to evaluate the assistantship as it relates to my ideas
about school and what effect it has on my education

Figure 15. Client's Responses to the "Nothing-To-Do-With-It" Test of Completeness for "To Clarify My Own Ideas About School"

D: So, as before, what I'd like to do is to read you a couple of other people's operationalizations of positive and negative situations and then ask you to write down any of this that seems to be part of what you mean by "To clarify my own ideas about future plans," or suggests anything else to you.

The test of completeness material that the developer read to the advisee is shown in Tables 14 and 15. In response, the advisee wrote:

-- Needs as result of past exper. [sic]

The developer then asked the advisee to go through the items that the advisee had written and accepted as the first-level breakdown of the three most important demands:

D: . . . Go through there, sort of item by item, and check off any that are operationalized--that is, that are directly observable states or behaviors.

MJ: [pause] Oh, uh, yah, I was thinking that you meant "things that are happening," but that's not what you mean.

D: No--things that, as stated there, are stated in the form of a directly observable behavior or state such that if you said to somebody, "Go out and see if this is happening," they would come back with the same information that you would if you were looking.

When the advisee said he had finished checking off the items that he believed were operationalized, the developer turned to the over-all list of demands, which the developer had typed to include the priority order and weighting which the advisee had assigned to the demands. This examination by the advisee was intended to be a final review and, if the advisee desired, modification of the list prior to giving it to the advisor.

D: So what I'd like you to do is to look at this, uh, make any changes that you want in it, so that

First Situation:

I discussed where I have been and used this to point out possible places where I felt the School of Education could fill in.

He then pointed out possible alternatives for meeting these needs.

Specifically I have a need to develop a better understanding of leadership and development of my own style. How the different styles can be used, when they should be used, etc. to bring about change.

He responded with possible course offerings, readings, etc.

Second Situation:

I would leave the situation feeling that we did not address my agenda for the meeting.

My advisor skirted the issues or refused to reinforce my preconceived ideas about my agenda.

Table 14. Person "E's" Test of Completeness
Responses for "To Clarify My Own
Ideas About Future Plans"

First Situation:

I write my own ideas about school
I speak my own ideas about school
I look at what I wrote
I listen to what I spoke
I analyze implications of what I wrote
I analyze implications of what I spoke
I repeat the writing of my own ideas about school
I repeat the speaking of my own ideas about school
I think of ways that school can fulfill my purposes
I think of ways that school is fulfilling my purposes
I think of purposes I have for school
I think of things that school does
I think of things I do in relation to school
I think of reasons for doing those things
I compare the reasons with the purposes I have for school
I add anything I want to the purposes I give for school
I think about implications of doing the things I do where the reasons
are not related to my purposes for school

Second Situation:

(not done)

Table 15. Person "F's" Test of Completeness
Responses for "To Clarify My Own
Ideas About Future Plans"

the form, the order, the wording, the punctuation, even--if that's important for any particular one-- and the weighting are all acceptable to you.

MJ: O.k.

D: You can make any changes you want right on there if you wish.

Of the twenty-four demand statements on the list, the advisee removed the following three, saying he did not think they were demands of his that needed to be stated apart from others:

15. Knowing myself when I want reactions, rather than expecting him to know. (Weight: 1/2%)
16. Being able to listen to others. (Weight: 2%)
17. Being able to use others' words as data. (Weight: 1 1/2%)

He added the weighting from the eliminated items to the next preceding one, number 14. Then he shifted the seventh item to fourth rank and the fourteenth item to fifth rank. The final list of twenty-one demands, or needs, are shown in Table 16.

The session ended with the scheduling of one more meeting for the purpose of having the advisee review a typewritten compilation of his operationalizations in a form in which they could be reported to the advisor. The advisee asked to have his own copies of what he had done and of what was reported to the advisor.

The sixth regular session began with the advisee reviewing the typed (triple-spaced) lists of dimensions, following these instructions:

D: What I'd like you to do is to go through these lists of dimensions, and, first of all, to verify that they're part of what you mean by the thing--for example: "To clarify my own ideas about future plans."

	Weight
1. To clarify my own ideas about school and future plans.	25%
1.1 To clarify my own ideas about future plans.	
1.2 To clarify my own ideas about school.	
2. To have protege relationship with [my advisor].	25%
3. To be able to communicate clearly my thoughts to others so that they (my thoughts) are understood.	10%
4. To be with him (advisor) in non-working hour situation.	10%
5. To have his (advisor's) reactions to things I will be doing after we leave here at the end of next year.	5%
6. To have a rhythm of communicating with [my advisor].	4%
7. [My advisor] expressing reactions in addition to	4%
8. Discussing (the role of computers, for example) influence of modern technology upon educational goals, values and systems; discussing contemporary issues.	3%
9. To assess possible courses in terms of their effects on my skills.	1%
10. To have his (advisor's) help in selecting areas for developing position papers for comps.	1%
11. To have his (advisor's) help in selecting specific sources of content for developing position papers for comps.	1%
12. To have his (advisor's) help in editing and critiquing the papers (for comps).	1%
13. His (advisor's) attending my comps.	1%
14. His (advisor's) shepherding me through comps.	1%
15. [My wife's and my advisor's] relationship being non-dependent on mine with him.	
16. [My wife's and my advisor's] relationship growing through their mutual wishes.	
17. [My advisor] expressing often a warm feeling for [my wife].	
18. [My wife] being aware of 17.	
19. [My wife] being able to do something with 17.	
20. [My wife's and my advisor's] relationship growing not as a formality.	
21. [My wife and my advisor] seeing each other, other than always as a result of my doing.	
	8%

Table 16. Client's Final Approved List of Demands

And when I say "verify," check to see if it's in your words and, if not, please change it.

After a couple of minutes, the advisee commented:

MJ: This is impressive!

A few minutes later, the advisee said:

MJ: This says "First Level Breakdown." Are there other levels, too, that we're gonna be working on?

D: No.

MJ: Good.

D: Not at the moment. [leaves the room to get coffee; then returns] My plan was to operationalize one further, um, and I guess I had the feeling that to do that would be, I was reluctant to push on that --which violated my own previously arranged procedure. What I said to myself was that I would try to get the client to go one level down further than the client at first thought was sufficient. Now, what's happened is that I'm seeing a certain amount of material here, and I think going much beyond this is going to be, you know, a fair amount for Arnold to handle.

MJ: Yah, it's a load!

D: And, uh, there are some dimensions in this that you've checked off as being, you feel they're at the operational level, and, uh, I just didn't want to take any more time.

The advisee did make some changes. At one point he said about an item:

MJ: Here's one that says "Matching my style to Arnold's," and it's sort of half like . . . it's almost becoming a copycat. Can I, would "adjusting my style to Arnold's" be more appropriate?

D: Anything's appropriate, if it's what you mean.

The advisee laughed agreeably and changed the item.

In the draft that the developer had given the advisee, the developer had typed some question-marks where he felt the advisee should consider

an immediate clarification of the item. These stimuli, too, resulted in some changes.

When the advisee decided he had made the changes he wanted to make, the developer instructed him:

D: What I'd like you to do now is to--on each of these things, then, and this is going to be really hard--is to look at the dimension that you have here and imagine Arnold, and ask yourself, "Would he and I agree on exactly what this means?" Check off the ones where you would agree.

After a pause, the developer thought of an alternative way to give the instruction, and he said:

D: As you imagine him, do you think that he will understand that, exactly as you mean it? If the answer's "yes," check it off.

After the advisee finished checking one demand ("future plans") and had passed the list to the developer to look at, he commented:

MJ: This is really strange--trying to do this. It's almost as if they're all fairly understandable. The word "exactly" trips me up. My sense is that they're all [pause] things he would understand except for about two, and that's 'cause they're not very specific.

The developer examined what the advisee had done, in order to be able to re-type the material accurately for reporting to the advisor. To double-check what the check marks meant to the advisee, the developer said:

D: . . . I'll let you describe the meaning of the check marks.

MJ: Oh. [The check marks mean] that "skinny Santa Claus" will understand exactly what I mean.

D: [recognizes that "skinny Santa Claus" refers to the advisor] Uh, huh. Alright.

MJ: [laughing] I'm curious, I'm curious about whether you're going to challenge me on that!

D: [smiling] Well, I, [Mike is still laughing] if you say that you believe that he understands them exactly and you've defined in your own mind what you mean by "exactly" and by "skinny Santa Claus," then there's no room for challenge!

MJ: That's no fun.

D: Mmm?

MJ: That's no fun.

D: You, well, now, if we said, "Which of those do you think I understand exactly what you mean?" then we could have some fun. [they both laugh]

It seemed reasonable to the developer to ask the advisee to do some priority-ordering within each list, but he also thought that the task could take a long time if the entire list were put in priority order. He decided instead to ask the advisee to identify on each list only the least important dimension and most important dimension to be communicated to the advisor.

In this sixth and final regular session with the advisee, the developer had the advisee work only with his three most important demands accounting for fifty percent of importance:

- To clarify my own ideas about future plans
- To clarify my own ideas about school
- To have protege relationship with Arnold

A fourth demand, "to be able to communicate clearly my thoughts to others so that they are understood," the developer had decided would not be reported to the advisor in detail because there had not been

enough time to test the operationalization for completeness. In type-written form, the developer showed the advisee the breakdowns produced in previous sessions. Then the developer asked the advisee (a) to make any changes he might desire in the lists, (b) to mark any items which he thought his advisor would understand exactly enough, and (c) to mark on each list the one item that was "most important" and the one item that was "least important" to communicate to the advisor. (The developer requested the latter because he believed there was insufficient time available for more extensive prioritization.) Tables 17, 18, and 19 show the results as approved by the advisee. In each table, the "most important" item is listed first, the "least important," last, and all other items remain unranked in between.

Then the developer described some steps he intended to take with the advisor, and he suggested that there might be something more for the advisee and him to do. At this point the advisee commented:

MJ: Last time, uh, after leaving, I was thinking about the, the responses by the other people kinda made me feel, uh, it really opened my eyes to a lot of things. And it also made me feel like I'd somehow missed out on a lot Well, I don't want to dwell on that, but in some ways it made me feel sad, you know, that here were all these things that I could've been doing that I haven't been doing--that kind of thing, you know, of having misgivings.

The developer asked if the advisee was thinking of this in terms of experiences, or, "Gee, why didn't I think of that?" The advisee replied:

MJ: More like, uh, here's a year or more that's sort of been wasted in, in the sense that if I had gone through this earlier, thought about it, or had this kind of information . . .

D: You might have considered more things to do this year?

-
- *His (Arnold's) seeing the relevance of his experiences to my needs
 - *Me working on what I expect to deal with in future plans
 - *Me attempting to explain the why's and wherefore's of those future plans
 - *Getting help from Arnold in expressing them
 - *His reactions
 - *His immediate reactions
 - *His relating his past experiences to what I'm saying
 - *His explaining what was important to him in earlier years
 - *His explaining what is important to him now
 - *His explaining what is important to him in future
 - *His own "plans" (for example, he has spoken of his plans to build his own house)
 - *My asking about past experiences of his
 - *My hearing his description
 - *My hearing his evaluation
 - *My reacting to what he is saying
 - *My being able to talk about how it (what he is saying) fits in with my plans
 - *I could then talk further about my plans
 - *I would be interested in knowing those parts of my future plans which he has had
 - *I would be interested in knowing those parts of my future plans which he has for himself
 - *I would be interested in knowing how he feels about those parts of my future plans which he has had
 - *I would be interested in knowing how he feels about those parts of my future plans which he has for himself
-
- *signifies that Mike (the advisee) believes that Arnold (the advisor) will know "exactly enough" what Mike means by the item
- continued on next page

Table 17. First-level Breakdown of "To Clarify My Own Ideas About Future Plans"

-
- *Advisor asking me to write down future plans
 - *Me writing down future plans
 - *Mutual analysis of my future plans
 - *Possible reworking of my future plans
 - *Iteration going on
 - *Examining life goals
 - *Comparing life goals to plans
 - *Keeping life goals in mind
 - *Being able to get life goals out in the open
 - *Identifying important satisfactions to plan for (such as contact with nature)
 - *Identifying less essential satisfactions
 - *Identifying things to avoid in future plans
 - *Something important enough to consider making plans for (such as making my own music)
 - *Arnold not intent on other matters
 - *Arnold not distracted from my descriptions
 - *Me knowing how to ask him about his experiences
 - *His wanting to share his experiences
 - *My not mistaking his thoughtfulness and unusually slow pattern of response to signify lack of interest
 - *My not mistaking his thoughtfulness and unusually slow pattern of response to signify inability to grasp what I mean
 - *My not sensing that it just might not be a moment in which he can respond to me in that his thoughts are elsewhere
 - *Keeping in mind my past needs and examining how much they influence or might influence future plans and future behavior
 - *Absence of distractions (interruptions) by other people
-
- *signifies that Mike (the advisee) believes that Arnold (the advisor) will know "exactly enough" what Mike means by the item

Table 17. First-level Breakdown of "To Clarify My Own Ideas About Future Plans"

-
- *Think of ways that school can fulfill my purposes
 - See school as it relates to long term goals
 - Break down possible areas of interaction
 - *Set up a list of possible activities
 - *Rate possible activities
 - Avoid those possible activities with lowest ratings
 - *Be able to talk about some of the reasons behind the rank of the various possible activities
 - *Get some feedback as to whether those possible activities which I've ranked highest are most appropriate for long range goals
 - *Time limit for interview
 - *Write my own ideas about school
 - *Speak my own ideas about school
 - *Think of ways that school is fulfilling my purposes
 - *Considering ways that school fulfills purposes
 - Things that school does
 - Living in another culture as educational experience
 - *Making time for speaking Spanish (somehow has a bearing on my education, past and future experiences)
 - *Make time for carpentry
 - *Make time for leather
 - *Evaluate the assistantship as it relates to my ideas about school
 - *Evaluate the assistantship as to what effect it has on my education
 - *Absence of someone telling me how I should plan my education
-

*signifies that Mike (the advisee) believes that Arnold (the advisor) will know "exactly enough" what Mike means by the item

continued on next page

Table 18. First-level Breakdown of "To Clarify My Own Ideas About School"

-
- *Absence of someone not considering my plans for future
 - *Absence of someone not considering my goals for future
 - *Absence of someone working with ideas of traditional components of education
 - *Absence of someone saying these are the "in" courses or teachers to work on (with)
 - *Absence of someone using me to replan their school experience
 - *Early in morning
-
- *signifies that Mike (the advisee) believes that Arnold (the advisor) will know "exactly enough" what Mike means by the item

Table 18. First-level Breakdown of "To Clarify My Own Ideas About School"

-
- Absence of anxiousness, nervousness
- *Learn of variety of experiences in Horace's life
 - *Learn of failures in Arnold's life
 - *Learn of successes in Arnold's life
 - *Learn of expectations he has for his future
 - *Discuss a common topic in order to compare ideas
 - *Discuss a common topic in order to compare reactions
 - *Be able to describe what I plan to do
 - Be able to ask for advice about what Arnold might do in the same situation
 - *He makes verbal suggestions about my behavior
 - *He makes verbal suggestions about my attitudes
 - *He makes verbal suggestions about my work
 - *He makes verbal suggestions about my ideas
 - Good
 - Bad (change those)
 - Constructive criticism
 - *Point by point discussion of work at hand
 - Genuine interest in his work
 - *I read his stuff
 - Accepting the conflict between (a) wanting to have some things in common as a kind of security blanket for me and (b) wanting to have some things in common as mutual points of reference--and yet not laying my needs on Arnold
 - *I comment on his stuff (criticisms)
 - *I suggest changes in his stuff
-
- *signifies that Mike (the advisee) believes that Arnold (the advisor) will know "exactly enough" what Mike means by the item
- continued on next page

Table 19. First-level Breakdown of "To Have Protege Relationship With Arnold"

-
- *I tell others about his work
 - I trust his values
 - Mutual respect
 - He's really available to discuss
 - *He makes recommendations to others about me, my skills and abilities
 - *Close contact many aspects of work
 - *Books suggested
 - *Course of development
 - *I attend advisor's meetings
 - *I participate in L-group with other advisees of Arnold
 - *Co-author articles, papers
 - Advisee helps teach
 - He has limited number of advisees
 - *One-to-one meetings
 - Adjusting my style to Arnold's
 - *My ideas challenged by him and vice-versa
 - Not interfering with Arnold's free time
 - Our agendas are in the open to be dealt with
 - Horace comes to me for advice
 - We work together on projects of mutual interest
 - Working for another person not getting in the way of relationship with Arnold
 - *Arnold aware of my interests and concerns (my contemporary activity)
-
- *signifies that Mike (the advisee) believes that Arnold (the advisor) will know "exactly enough" what Mike means by the item

continued on next page

Table 19. First-level Breakdown of "To Have Protege Relationship With Arnold"

*Arnold not forgetting my interests and concerns (my contemporary activity)

*Not explaining my problems in a bemoaning manner

Not knowing very little about what Arnold is thinking

*Arnold not avoiding giving negative feedback

*Arnold not avoiding giving positive feedback

*Arnold not avoiding me

*Neither of us just a yes man

*Me not being slave, serf, errand boy

Absence of intimidation

He has some time

*He reads my stuff with feedback

He doesn't ignore my feedback

I don't ignore his feedback

Absence of jealousy

Absence of mistrust

He doesn't act in a hurry

*Time of his not being taken up by interaction with me (especially when more important matters are pressing)

*Work with advisor in same office

*signifies that Mike (the advisee) believes that Arnold (the advisor) will know "exactly enough" what Mike means by the item

Table 19. First-level Breakdown of "To Have Protege Relationship With Arnold"

MJ: Yah. But I wouldn't want to dwell on that, on the "poor me." It was more like, "Gee, this is really useful information coming from these other people." But it was a combination of, of feelings.

The developer asked the advisee if he contemplated making any decisions as a result of what he had been experiencing. The advisee replied:

MJ: I guess the main thing is to start working with Arnold on it.

D: I'm asking, really I'm fishing for the implications of your saying, "There are a lot of good ideas." And it's one thing to think of that in terms of the past--"Gee, I wish I had"--and another to say, "Well, now I have."

And then the developer asked:

D: Is it important now?

MJ: Yah, it's important. I'm reluctant to say, "Boy, I'm really gonna take advantage of this," because I just don't know. But it's very . . .

D: Yah, I want your realistic appraisal of that--I mean, your honest, direct . . .

MJ: I just don't know.

D: Then that's what I want to hear. [pause] Alright, what would you want to do next, if we were to do something next? I'm not proposing that, but as a hypothetical question . . .

MJ: I, well, as a hypothetical, I think that, um, you were describing the process of showing it to Arnold and seeing which ones he thought he understood and then seeing if that converged with my understanding of what I was saying and which ones didn't. How to work that out--that would be interesting. But this, this could go on forever. But that, that, that sounds worthwhile.

D. See, I'll be asking Arnold, too, what to do, what he expects to do next.

MJ: Yah.

D: And from my perspective, it's just, you know, since the world is full of options, it's just important to identify the next thing you want to do.

The session ended with the developer promising to give the advisee a copy of the typed report to the advisor and with the advisee promising to give the developer a copy of his life-goals paper that had not produced any additional needs when used as a test of completeness. The session had lasted about three hours.

Two days later the developer met with the advisor for the purpose of reporting the advisee's needs. The developer had re-typed the material as approved by the advisee. For each of the three needs, the most important dimension was listed first and the least important, last. Before giving the needs materials to the advisor, the developer reviewed some of the context in which the client demand study took place:

D: . . . I had a few meetings with Mike over a period of the last four or five weeks going through the steps of the procedure, and we'll see now how useful it is for you. O.k., the first thing that I would like to do, Arnold, is to review the context that these are directed to--as that context was defined by you [the previous month]. This is what I wrote down of a direct quote. I had some trouble with the tape because the batteries were low and so the speed was a problem; but I think this is what you said, and it's in my handwriting so why don't I read it, instead of you. Your definition of the domain was "that which has to do with decisions in terms of relationships with the School of Education during the next year"--in summary, advisement decision-making. And then you commented, regarding Mike in particular . . . and then the several people that you mentioned together, in the following way: "I don't know whether he has information that he wants me to have but he hasn't been able to give me--either he doesn't know he's got it, or he knows he's got it but

doesn't know how to tell some of it or interpret some of it or doesn't take the time to tell it. But I felt confused at this point . . . about what kinds of decisions they're going to make about their lives that are relevant to, first of all, are they going to continue working with the School next year; if so, in what kinds of ways do they need support, what kinds of experiences do they need, what kinds of help do they need, what kinds of decisions are they confronting? . . . How much do I know or how much don't I know about them that if I knew I could give them some more help or find somebody to." Now, when I worked with Mike, I didn't give him this detail. I'd pulled it off the tape at the time, and the judgment that I made was that it was probably simpler to start with, uh, the reference being simply: "The advisement process with Arnold." But that was your context. Now, in general, the procedure that we did was, first, for him to imagine the advisement process as he would like it to be with you, to think about it hypothetically, and then to make note of the things that were important parts of that desirable advisement process. And then after we did that, we did some tests of completeness with some other people's needs for advisement in their situations. As it happens, it wasn't [sic] any of your advisees. Uh, those tests of completeness were then applied; Mike revised his list in light of the stimuli and then we rank-ordered the list--he rank-ordered the list and weighted them. And then once that was done, then we started to do an operationalization of the several most important. So first, then, is the list of his needs, as defined by him.

The developer handed to the advisor the list of needs entitled, "Mike's needs for the advisement process with Arnold, in order of importance as of [two days ago]." The advisor said:

A: . . . I saw Mike yesterday for a minute and we were arranging to meet.

D: Uh, huh.

A: He said that he wished he'd had this when he first came as a doctoral student.

The developer commented that the advisee had said as much to him, too, at the last session.

D: . . . And the question for me was then and is now: is what happened useful at this point in time for him, from here on? 'Cause if it "would have been nice," that's one thing that's important to take into account because it may be important to do this, really important, most important, to do this for people who are just starting; uh [pause]

A: Of course, this is an adaptation of what you're really interested in doing, anyway.

The developer's voice indicating that he wasn't sure he agreed with that, he hesitatingly replied:

D: Right. Yah.

A: You're not really interested in counselling; you're interested . . .

D: [interrupts] Well, I'm interested [pause]--if this is, you know, a useful application of it, then that's terrific. [pause] But I do have the other interests. [He says to the tape recorder:] I've handed Arnold the list of needs. [pause, then he says to the advisor:] Incidentally, once again, the tape is for my benefit in reviewing what's happening in terms of this particular field test.

The advisor had begun reading the list of needs as shown in Table , and he asked:

A: How is he using this term, "protege"?

D: Uh, that's one of the partially operationalized wants; so that we can go through that. I have first level breakdowns on what he means by, "to clarify my own ideas about school," "to clarify my own ideas about future plans," "to have protege relationship with Arnold."

A: And "rhythm of communicating"?

D: No, just the first three, if you count the two parts of number one.

Continuing, the advisor smiled after reading items 15 through 21 and said:

A: This last set are a very unusual situation, huh?

The developer chose not to respond directly, but rather to continue the process:

D: Mmm. O.k., now, why don't you keep those. Now I'm going to want to know to what extent any of the things that we do--and particularly the data that I'm giving you--is in fact used by you in making decisions, including whatever decisions you may be sort of making internally right now, or even as a result of talking with Mike or what have you.

A: Uh, huh.

D: And at some point I'll need to be systematic in identifying what those decisions are. If you feel yourself making some decisions . . .

A: [interrupts] Well, I'm curious about the "protege"--what that means.

D: O.k., we can do that one next. I can show you what he says it means. Now, for this meaning I employed a pretty orthodox version of "Operationalization of Fuzzy Concepts" [Hutchinson and Benedict, 1970] and used two to three outside stimuli at the third step. Have you used the procedure?

A: Uh, huh.

D: [hands the advisor the pages entitled, "First-level breakdown of 'To have protege relationship with Arnold'"] So, this is a first-level breakdown--two and a half pages. Now, I must say that that's not in priority order, with the exception of the first item. The very first one is the most important. The very last one is the least important. And anything else in between is jumbled up--there's no priorities; we just didn't have time.

In a little more than two minutes, the advisor completed reading the list of dimensions. He smiled and said:

A: That's neat! A lot of good stuff here.

D: Yah.

A: [refers to what he had just read] How long did it take to elicit that?

D: This one set?

A: Mmm.

D: Say, about an hour and a half to two hours with Mike, plus the time that it took me to get the outside stimuli with other people's operationalization of, in that case, not "protege relationship with Arnold," but "protege relationship with their advisor" was the way it was put to those folks. Actually, I had three people do that.

A: The thing that's running through my head, now, with respect to this--the thing that I think I'm getting some insight into--is that, um, most of the students I work with, either as major advisor or just a block of people who drop in, seem to come in without my asking them to and without there being any necessary task involved. They just drop in. Uh, some do it only occasionally; some very frequently, and for a whole range of different reasons. Uh, but at least at first, or until something strong is built up, the initiative seems to come from them. At some point the initiative may come from me, uh, especially as we are getting to certain kinds of things, like comps and so forth, and I sense that they're backing off and getting frightened and I'll start taking some initiative in order to, uh, well, just in order to make them have a face-to-face relationship with me and get it out there rather than staying home and moaning, or whatever they're doing. But in Mike's situation, he does not come readily; he doesn't just drop in. And what I'm getting from this is that he does want some kind of relationship; he doesn't know how to go about it. He doesn't feel at ease just dropping in, apparently. Uh, he has all kinds of doubts about my time, my willingness, my interest in him, perhaps--enough interest in him to make it, uh, worth my time to spend the time with him when he really doesn't have anything that he's coming for, except to just drop in. Uh, that is, he hasn't gotten the signal from me that I enjoy people. And it doesn't really matter to me whether there's anything particular that we're supposed to be talking about, that I like them to drop in. And I have a hunch that it would perhaps be easier for him if there were some task that we were involved in,

together, for a period of time, until he got used to, built up enough assurance that he's not wasting my time by dropping in, and that he doesn't have to have an agenda to come in. I haven't given him those signals apparently in a way that he can pick them up. Or, if he has picked them up, he isn't really sure that that's for real.

D: Now, these may not be necessarily unfulfilled kinds of things, of course.

A: No. I understand that these are some things that he's already sensed and some that he's not sensed and so forth. Just that it's a mixed bag, you know, but this is what he means by "the protegee relationship."

D: Yah. And what you're doing now is what? Is comparing your concept of the relationship with what you've read and seeing some, to you, discrepancies.

A: Yah. Yah, I see him as being hesitant to impose. And I see him as being self-doubting.

D: Now, is there something in the operationalization that, uh, you're referring to; part of the data . . .

A: You mean, do I get this from this? Yah. Yah, uh. There are three or four or five places where he says [pause] Well, I think this whole business. I don't, whether he--"absence of anxiousness and nervousness"--I don't, whether he means that that's something he wants and he is anxious and nervous. Um. I sense that he is tense.

D: Uh, huh.

A: But I sense that he's not only tense with me, that he's tense in a lot of situations. Uh, but that he's no less tense with me which I would assume he should be at least somewhat less tense with me, uh, if he has, um. So that would be one clue to me that he's not at ease about coming in. And then the "Accepting the conflict between wanting to have some things in common is a kind of security blanket for me and wanting to have something in common as mutual points of reference--and yet not laying my needs on Arnold" suggest the continued concern about not, uh, not taking up my

time, but also, and what's being said here is that, he himself not wanting to be dependent on me for negative reasons. And he's afraid of that, apparently. Or concerned about that, that that might happen. Uh, either because he's seen it happen with other people in other situations, or he's had it happen to him, I don't know. [pause] There are a whole lot of things here in which he suggests that I don't know why they haven't happened, I guess. A lot of things he'd like to have happen, but they haven't happened.

D: Now what tells you they haven't happened? I mean, is it . . .

A: Uh, just my, I don't feel they've happened. Uh, he had a seminar with me, an independent study last spring, a year ago, with four other students. And, they finally decided to meet without me cause they were having so much fun. I think there were four or five of them. And then we went off at the end for a two-day retreat and each one of them took charge for a quarter of a day, half a day, for the two-day retreat, and I reacted and we all reacted to what each one was presenting that they had been working on. Uh, and I liked that. I thought that was great. It started out as a single person in independent study, and then that person wanted somebody to relate to, somebody other than me, and ended up with four or five of them and they started to meet without me.

D: Now is that, uh . . .

A: And those have all been very close people and Mike was a member of that. So some of these things, he's [pause] Yah, I guess I'm confused in here as to which ones of these are ones he wants and hasn't had, and which ones he's had and wants more of. Um. And here's one, "Not interfering with Arnold's free time." Uh.

The audio tape recording ended at that point and a few minutes of the meeting probably were not recorded. With a fresh cassette in use, the session resumed:

A: There are a lot of items here which indicate that he would like to have a peer relationship, at least to some degree; and, uh, somehow I sense that

he doesn't feel that that's been easy to establish. Which leads me again to think of some kind of mutual task that we both were involved in and were dependent upon one another for, to be completed. And he mentioned some things in here about reading one another's things and writing about one another's things and criticizing one another's work--this kind of thing--which suggests, all this, which is really a good insight for me as to how I might proceed. "Neither of us just a 'yes' man." "My not being slave, serf, errand boy." "Absence of intimidation." "He reads my stuff." "He doesn't ignore my feedback." "I don't ignore his." "Absence of jealousy."

D: The thought occurred to me as he was operationalizing, uh, that someone else might use the term, "peer," for some of the dimensions--a "peer relationship." He used "protege," but the concepts of "peer" and "protege" apparently overlap quite a bit. In fact, last Tuesday he even used the term "peer relationship" and kind of substituted . . .

A: Uh, huh. There's much more "peer" in here than "protege." My concept of a protege is, uh, well, I think that some people do need that feeling that they are a protege. Some of my advisees do need that for a period of time and then at some point they don't even realize that they're no longer in that, no longer see it that way. But the whole business of "father image" and all this comes in I'm sure, and that feeling of wanting that and just uh, uh. And I think that's a fairly honest kind of feeling in the sense there's no use their pretending that they are a peer if they don't feel like they're a peer. With Mike, he apparently is ambivalent to some extent about whether he's a protege or a peer and, uh, [pause] I'm still stuck as to why he doesn't come in.

The advisor seemed to be looking at the dimensions as clues to present dissatisfactions and to the advisee's motivations. The developer decided that it was important to identify some limitations in the data. Particularly he felt it was important to say that there had been no measurement of the extent to which needs were met or unmet. Client Demand Identification methodology does not include such measurement,

although further development into a Client Demand Analysis methodology would include measurement procedures.

D: Let me comment on what I hear you saying. I hear you analyzing this in terms of what may be going on in his head and how he may be analyzing his needs. That is, he sees he wants some things, and maybe he sees some things aren't happening, and--from what you suggest--it seems like more of what's on the paper represents the discrepancy, the unfulfilled needs.

A: Uh, huh. Uh, huh.

D: Now, I'm not sure that that's a reasonable assumption. I guess I want to caution you against that, because the context was to try to describe as completely as possible the desirable advisement process. And that presumably would include things that are happening as well as those that aren't. And, I want to suggest that the only data you have about what's not happening that's desirable to him is the data that you already have, perhaps, as you observe the advisement situation. And you're comparing what you know of it to the relatively complete description that's on these pages and saying to yourself, "There may be a discrepancy;" whereas he may not see that. In other words, these may not be unfulfilled needs, from his perspective. I, I don't know. In other words, I just wanted to caution you on that question of interpretation.

A: Well, . . . what I sense from this in terms of what he sees is an ideal situation: I didn't know how much he wanted in the way of an advisee-advisor relationship. I couldn't tell. Some students tell me quite frankly what they want, and sometimes it's more than I can give or more than I'm willing to give. But in his case I just didn't know what he wanted. Now I think I see, at least in sort of a holistic way, that he wants a pretty full relationship, a fairly rich relationship. And my hunch is that his first need, here, "to clarify my own ideas about school and future plans"--he's so confused about his own future, immediate future as well as long range future, about what he wants to do, I have a hunch that he doesn't want to come in to me with that because he can't work it out with his wife, can't work it out with himself, can't work it out with George [a person Mike worked for]--well, why come in and unload on me about it. I think

he has a feeling that there's nowhere to go until he knows where he wants to go. That is, he doesn't recognize that it's quite legitimate to come in and say, "I don't know what the hell's goin' on with me," and then see what happens in the relationship Maybe he doesn't come in because he's just too damn busy, but [advisor laughs] this is a good reason.

What the advisor had just said--particularly his concern about why the advisee didn't come to see him more often--prompted the developer to define a larger client demand (or personal welfare) context:

D: Well, what he wants for advisement is a piece of what he wants for the whole world in relation to himself and others. So, the question may be, "What piece of his total wants for all of life is this?" In other words, to infer that he's hesitant because he's not getting, or doesn't know how to approach it, that is one useful interpretation, I suppose. But a rival one would be that on his list of priorities of things that he wants altogether out of life, this one is somewhere down from the top, and he's spending the rest of his time with the other things. That's an interesting problem that I'm gonna have to work on in terms of the methodology.

A: Yah. Yah, a person can explain a lot about a need, and it can be a very interesting explanation, but it may not be high on his priorities.

D: Right.

A: That's correct. And you can really get way the hell off in left field somewhere on that one.

D: All, all that we know is that you want information about the advisement process from him according to him, and these are the things that are the most important [with respect to the advisement process]; you don't know the rest of his life.

A: That's correct. . . . Mike's confused about his hierarchy of needs, himself. I think I know what some of his basic interests are.

D: One of the things that this suggests to me--it's really consistent with this--would be to employ the

general approach with a person where the domain is really as large as the world, for that person.

A: Yah. Yah. That's true. I think that would be good. Yah, get some picture of where the more specific thing that you're gonna zero in on fits in with the rest so that you aren't off in. Because I think you're right: I think one tends to assume that whatever one is doing and one is responsible for must be very important to other people, too, and that may not be that important. . . .

With respect to the advisee's need "to communicate clearly my thoughts . . . ," the advisor described some of his previous interaction with the advisee in a seminar, and then he suggested:

A: . . . The thing that would help Mike and me would be for he [sic] and me to go for a four or five day hiking trip. That would clear it all up, 'cause I think that both of us enjoy the out-of-doors, and that would just break the ice or whatever is interfering. I think that would be a very useful thing to do. Some sense of that: we were talking yesterday a little bit and he said he did want to come and see me and would like to make a time for it. And I said, "Well, why don't you invite me for dinner?" And he said, "Oh, great! Would you come?" And I said, "Sure. Of course." So I'm going up there for dinner next week.

It appeared that both advisor and advisee were making some decisions using data from the C.D.I. study.

The developer next gave the advisor the list of dimensions for "To clarify my own ideas about future plans," followed by the list for "To clarify my own ideas about school." There was little interaction between the developer and the advisor. Then, apparently trying to envision the advisor-advisee relationship as Mike might want it, the advisor said:

A: In some ways I have the idea that what he would really like to do is to see me not as a faculty member--'cause school's not that important anyway--but

he'd like to see me as a person, a friend, an older friend who happened to be a neighbor. And to try to fit that image of what he would like out of a relationship into the whole school bit--preparing for comps and taking courses and on and on.

The developer thought this was a good point at which to test the advisee's dimensions for observability according to the advisor:

D: Notice that you're describing an image of the situation, using different terms than he does; and what I'm wondering, then, is to what extent, if you went down the list of each of these dimensions, you would feel that you know from what he said, exactly what he means. I guess I'd like to ask you to do that: to check off the items where you feel you know exactly what he means by each.

The advisor asked:

A: Can I modify that?

They both laughed.

D: Do whatever you want to do, but just tell me what it is.

A: Well, alright: I wouldn't pretend to know exactly what anybody means about anything, but I would pretend to have an estimate--that I would have a much clearer notion about some things and less clear about others--that kind of thing.

D: I guess what I'm looking for--on this cut--is where you feel you have a very close approximation.

A: O.k.

During this meeting, nothing was done with the results of the advisor's analysis, but copies showing the check marks were made for the advisee and developer after the meeting.

The developer broached the subject of evaluating the C.D.I. study by identifying decisions and then relating the C.D.I. data to the deci-

sions. The advisor mentioned some decisions he had made and some he thought he would make. Concerning this C.D.I. study and the advisement process with this particular advisee, the advisor commented:

A: . . . There's nothing missing. There's nothing that I intend or would like to have happen with respect to the advisement process that hasn't been touched on in this situation.

D: In terms of his needs according to him?

A: Yah, uh, I guess . . .

D: I guess I would include in that, perhaps, some of the other things you talked about earlier--that you weren't sure of.

A: Well, in this sense, that, uh [pause] I don't know just from this material, some questions I have, but I see some leads as to how I can pursue those questions, which come out of this material. So all the questions I have are not answered here.

D: That's fair enough. In the sense that you have questions that you want answered, that's part of the total advisement process. And in the sense that the answers are not here then this process is incomplete with respect to that.

A: But these give me some leads as to how I can go about those questions--which I didn't have before or which I hadn't thought of.

The advisor had an appointment to get to, and the session ended with arrangements for another meeting eight days later--after the advisor's evening with the advisee and his wife.

The day before the scheduled meeting with the advisor, the developer formulated three questions to ask him:

1. What decisions have you made (re: advisement process with advisee) since meeting with advisee briefly nine days ago?

2. What decisions do you anticipate making in the future?
3. What decisions do you want to make in the future?

The developer planned to have the advisor relate the C.D.I. data to these decisions where the advisor thought the data were, or would be appropriate. It then occurred to the developer to have some test-of-completeness material available for the decision-maker's identification of his decisions, past and future. To provide the test of completeness, the developer telephoned the advisee the next morning to see if he would be willing to help on short notice. He was willing, and the developer put these questions to him:

1. What decisions has Arnold made as part of or in relation to your advisement process since you two met nine days ago?
2. What decisions do you think Arnold will make as part of or in relation to your advisement process?
3. What decisions do you want Arnold to make?

Since there was only a brief time for the advisee to answer, the developer said that the priority of importance of the questions was the same as above sequenced. When the developer called the advisee again in a half hour as arranged, the advisee had a shorter list than the developer had hoped for, but it was all that the advisee said he could think of: five decisions under the first question, one under the second, and none under the third. The advisee said it seemed to him "hard to know what 'decision' means" as the developer uses the term.

The developer and the advisor met as scheduled.

D: I'd like to lead off with a question. . . . And

I'd like you to either say or write your answers. What decisions have you made as part of or in relation to the advisement process with Mike in the period of time since you met and he invited you to dinner?

The advisor responded orally.

A: One thing: to find ways of responding to him through a new insight or a reinforcement of an insight I have about some of the difficulties he's having. . . . Well, basically it's just a matter of my deciding to take the initiative now more in terms of making contact with him and finding ways to get him involved in things that I'm doing or that I know other people are doing that he would perhaps enjoy doing but that he won't do initially

D: Did you make any decisions about finding out about those things?

A: Yah, we talked about it at supper the other night. . . . And I see that he's gonna need a lot of subjective support and a lot of initiative on my part to encourage him to interact with me and with other people and to find things that he can do and enjoy doing. That's one decision. And the second decision was to--a delicate kind of thing--to keep having him look at whether or not he really wants to bother with the doctorate and to encourage him to do and at the same time not make him feel that it matters whether he does it, in terms of what's really important in life--that if he doesn't do it, it's not a sense of failure, it's because he has some other things that are more important to him. Not because it's a "bad thing" that he didn't complete his doctorate. But at the same time to encourage him in the sense that I think that if he wants to do it he could do it--it's just a matter of whether he wants to do it, not whether he's gonna fail at it, but just whether it's what he wants to do. And to keep encouraging him as long as he's in this environment to keep developing toward his doctoral, to get somewhere with it as long as he's here and not just, uh, sort of float in an ambiguous fluid. And those are, I guess, the two basic decisions.

The developer presented orally some test-of-completeness material for the advisor's consideration:

D: Now let me suggest some others as a kind of stimulus, because I asked Mike the same question just this morning and here were the things that he suggested. Uh, the question was, "What decisions has Arnold made as a part of or in relation to your advisement process?" 1. "That his [Arnold's] past experiences are important to me." Would you say that that is a decision?

A: Well, yes, that's an amplification of my first one. In terms of subjective support, one of the ways I see doing this is to involve him in my, uh, inner life to some extent--share it with him. This is one of the ways I would provide subjective support; do things with him: hiking, this sort of thing, talking about my own struggles and such.

D: Alright. Second: "That his past experiences should be shared with me."

A: Yah.

D: "That I need a guidance committee."

A: Yes, we did decide that. And that's part of the second one; if he's gonna stay here, then start making some specific decisions about how to do that and what that means. Right.

D: "That future plans are important to me and I need to see the relationship between future plans and school."

A: . . . O.k., that's a separate decision, I guess. I see that as part of the whole business about whether or not he's going to do his doctorate or not do his doctorate. It has to do with what he wants to do with his life. And the whole notion is not that this is bad and that's good, but that they need to be clarified and then acted on.

D: O.k., "That there are areas for discussion and areas to deal with."

A: Hmm. I guess that's not a new decision for me; it's just that I didn't know what they were. I didn't know how to approach the ones that I thought there might be.

D: You may have decided, then, as a result of it,
. . . on certain of . . .

A: On what the areas are that we can . . .

D: O.k. Now, the next question, then, is: What
decisions do you think that you will make or may
make as part of your advisement process with Mike,
in the future?

The question seemed to stimulate the advisor to think of more decisions that had been made already, recently, but with respect to the future. Like the advisor's discussion of the advisee's need list, his descriptions of these decisions were extended narratives, and the narratives were difficult for the developer to analyze immediately in the context of the meeting. Yet the developer did not want to lengthen this particular evaluation, nor did he want to schedule another meeting after he had had time to do a detailed analysis. He decided to have the advisor go through the reported needs and the operationalizations in order to identify which of the items--needs and dimensions of certain needs--the advisor believed he had already used or expected that he would use in decision-making about the advisement process with Mike. This, then, was an application of the "inefficiency" criterion.

With respect to the list of the advisee's needs, the advisor indicated there was only one needs statement that he either had not used or didn't expect to use: the seventh item, which appeared to be an incomplete thought (see Table 16). Regarding the operationalizations, the advisor's actual or expected use of the data, according to him, was comparably high (see Table 20).

Since, in reality, the C.D.I. study produced data other than those

Category of Data	A	B	C	D	E	F
	Quantity of Data According to Developer	Actual	Expected	Both or Either	Total (B+C+D)	% of Inefficiency $\frac{E}{[100-(E+A)]}$
Needs (Demands)	22			21	21	4%
Dimensions of "To Clarify My Own Ideas About Future Plans"	43		3	37	40	7%
Dimensions of "To Clarify My Own Ideas About School"	27		15	11	26	4%
Dimensions of "To Have Protege Relationship With [Advisor]"	62		2	58	60	3%

Table 20. Decision-maker's Use of Data for Decision-making

which were reported, or could be reported in writing, the developer wanted the advisor to make some additional comments:

D: . . . In addition to these sheets, there are other things happening, of course: interactions, the things we do, and what-have-you. So, I'd like you to comment on anything specifically that's been--maybe about the process--that has been information.

A: Well, I'd say that this was [pause]. The most significant thing to me about the process is that it looks like a low-level threat, it has a very low threatening level for some very potentially threatening areas in terms of human interaction--that it's a way for very threatening things to be addressed and looked at in a non-threatening way. I think I mentioned before that I was impressed with this as being a very interesting counseling technique and has some therapeutic overtones and undertones. Can almost see this being used between a man and his wife or a wife and her husband . . . But between any two or more people, this seems to be a way of getting at touchy stuff without too much threat to people's inner feelings or fear and so forth, uncertainty. Now, whether that's just because of the particular people that are involved [in this case] or whether that could be generalized, I don't know. It is an interesting, from that point of view. 'Cause I think the most important thing that's come out of this for me in terms of an advisor-advisee relationship is this whole subjective business rather than any objective information about, oh, courses that he wants to take, or. There's some things there--for instance, he talks about some other specific kinds of things that have a more objective nature--but the undertone of the whole thing for me is quite subjective. And maybe it's just that for me that's very important in an advisor-advisee relationship, anyway, that that level be reached--or else I find the objective kinds of contacts as being relatively innocuous and not very significant. And also when there are problems that come up dealing with an objective sort, I find that usually they're not very easy to solve until some subjective levels have been reached.

The advisor added:

A: I think probably, in terms of the time spent, I've picked up more information--much, much more information

--than I would've picked up had I spent that much time directly with him without the intervention, without your facilitation.

It was, he said, "information that I can use for decision-making."

The developer gave the advisor an estimate that there had been about nine or ten hours of direct contact between the advisee and the developer; the developer and advisor had spent about two and a half hours. Some of the time could be reduced in the future, the developer felt, and still accomplish similar results.

Then the developer sought the advisor's perception of any negative effects of the process in this application:

D: . . . Has it had any negative effects that you can sense?

A: [shakes his head]

D: Alright, um, then you're saying as far as the amount of time you spent that it's been valuable.

A: Uh, huh. [pause] I suspect it will affect some of my decisions about some of my other advisees.

D: Could you say some more about that?

A: Yah, I think that probably students see me as being, [pause] I had thought that students tended to see me as more available than most faculty members, but apparently that's not necessarily the case. And apparently I come across to some, [pause] I may come across, without knowing it, as being more preoccupied than I really am. And I think this whole business of putting more attention on the informal relationships is probably a good one to use with more of my advisees --I do it with several already, but probably should be doing it with more.

The developer reflected a moment on the problem of defining a "decision," as such. That morning, in attempting to provide test-of-

completeness material, the advisee had found the term, "decision," to be a problem. What the advisor in this session had called his two "basic decisions," seemed to the developer to be collections of decisions, somewhat ambiguously expressed. It seemed to him that the evaluation procedures that he had applied had failed to elicit the kind of decision data that he needed.

D: One of the problems that I've run into is testing of the procedure in terms of decisions made. At one level I can deal with a "decision" being whatever a person defines it, whatever you mean by that when I suggest that to you, then your answer is useful to me. It's nice to be able to think of it that way. But also it creates some problems--being ambiguous--in an immediate sense because I'd like to be able to quantify and match data with decisions.

A: Yah.

D: And when a person conceptualizes broad areas as being a basic decision, uh--there's nothing illegitimate at all about that . . .

A: No, but it's hard to quantify.

D: Yah. It means it's something that I need to consider more seriously in the methodology.

A: Well, I guess my reaction to that would be that that probably reflects a basic question I have about the whole competency-based approach, the whole behavioral objectives approach, as to whether or not there is something lost between the gestalt and the specific. When one attempts to break the gestalt down into specifics and then one looks at a single specific and then at another one and at another one, is it an additive process--or is there something unusual going on in the interaction which in itself is a creative thing that no specific will tell you about by itself? And I guess my tendency is to say, "Well, let's play around with it, but I don't want to spend much time playing around with it myself; I'm glad to have people play around with it, see whether or not we can get any further than we were" We don't seem to be

able to get very far on a lot of problems using the gestalt approach, the holistic approach, the insightful approach, so maybe we should be pretty careful about not damning some other approach. But my tendency is just to feel cautious about it.

D: I'm curious how you would place this procedure on that continuum--if that is a continuum--from gestalt to competency-based.

A: Well, let's see. Ever since I first talked to you when I came for an interview, I have felt that you are consistently making an attempt to make a marriage here and that you are not coming down anywhere on that. And this process, this still says to me you're not coming down anywhere on that yet. You're still there, where you were when we were interviewing one another, I guess. That was the perception I had of you then in that first short talk we had and it still is my perception. And this bears it out--that you push to see what you can get out of the specific, but you don't, apparently, insist that that has to be done or else the whole damn thing's no good. Uh, you're aware of, uh, how easy it is to avoid a problem by using the gestalt, so you want to get at the problem, do something about it, and make some sense out of it. But you're also aware that a lot may be slipping through the net if we stay with the specifics. So I think that I would find you still trying to really get some marriage between the two, or some synthesis.

D: Yah, I would hope that this procedure would be bridging those approaches.

A: Yah, I think that in our talks, or in this process, we've been slipping back and forth between these levels of abstraction in an attempt to see if one would feed the other.

The session was drawing to a close on schedule. The developer asked:

D: Is there anything that you would like me to do?

A: Mmm, no.

D: O.k., uh, anything you'd like me not to do?

A: [he laughs] No. No, I'd like to read your dissertation when you get it done. I'd enjoy doing that.

The developer referred again to the analysis of decisions:

D: Swell. Prior to that, in fact, my present intention is to analyze the areas that you said you made or were making. What you broke down to two, I hear in terms of many things. And that's probably because, you know, the same problem--you're thinking of the one or two things are the gestalt of it all and the specifics are just part of the picture. Then I guess I want to look at that in terms of using those specifics as being discrete items, not necessarily complete, and attempting to make a match-up there, as best I can from what I hear you say on the tape.

Then a question about the procedure for stating decisions:

D: I'm curious--it's never possible to turn back time--but I'm curious what would have been the outcome had I asked you to write the decisions. . . .

The advisor thought he would have resisted having to write, for reasons of time.

A: . . . I guess my resistance would have been on the time element, it would have taken a lot of time to have done that, a lot of time. I would have probably resisted it for that reason. But you might have gotten something more out of it, I don't know. I might have given it further thought than I did, I think.

The session concluded with mutual expressions of appreciation.

As described above, these applications of C.D.I. methodology did in fact produce client demand data for decision-making. Therefore the methodology can be said to have worked, as a whole, under the specific circumstances of these particular field tests. However, some parts need to be revised. Immediate revisions to Draft I based on the field tests are discussed in Chapter V. Implications of the field tests for further

research, development and application are among the topics discussed in Chapter VI.

CHAPTER V
REVISIONS TO DRAFT I RESULTING
FROM THE EVALUATIONS

Although the tests of logic did not result in any substantive revisions of Draft I, the field tests had different results. The field tests turned out to be considerably more complex than Draft I specified. The number of interactions between the developer and each other person was far greater than the written procedures of Draft I would suggest. Therefore, the developer was required to further specify many procedures as he went. This, of course, reaffirms the judgment that a developing methodology should be field tested initially in the simplest available conditions--because even those conditions are likely to be sufficiently complicated. Most importantly, the field tests did provide the developer with data that he has been able to use for revising the methodology. In fact, more data have been provided than are reasonable to integrate into the next level of written specifications. Draft II, which is appended to this document, incorporates some changes resulting from the field tests and some changes resulting from ordinary methodological development.

This chapter will present those revisions to Draft I that seem to the developer to be appropriate for Draft II specification. In other words, the chapter presents those results of the field tests which have in fact become revisions to the methodology. Other results of the field tests that have implications for further research, development

and application will be treated in the following chapter.

These revisions are discussed in the present chapter:

- Soliciting the interest of persons for whom the methodology might be applied
- Choosing whether to maintain a decision log or depend upon later recall of decisions
- Qualifying the criterion of "importance" in terms of each specific application within the methodology
- Asking whether the decision-maker has any time frames in mind with respect to the domains of concern to him
- Providing the participants with the methodological reasons for doing particular steps and sub-steps
- Providing the participants with written definitions of some prioritization criteria
- Choosing whether contact with the client should be made initially by the identifier or the decision-maker
- Encouraging participants to freely express any concerns about the process
- Developing stimulus questions
- Converting "negative" poles to "positive" attributes of demands
- Omitting Force-field Analysis from Draft II

At the beginning of the field tests it was necessary to solicit the interest of some participants, but Draft I had no specific procedures for accomplishing this. Therefore, the developer designed a very brief approach to promoting the methodology. It was crude, but it worked. A decision-maker did express his interest in the developer's performing a client demand identification study in his behalf. In broad terms, the approach involved identifying the population of poten-

tial decision-makers with whom the developer wished to work. Then, the developer contacted those potential decision-makers in a randomly chosen sequence, briefly outlining in writing what he proposed to do. The approach seemed reasonable because the developer needed only one decision-maker to work with, and he really did not have any preferences as to who that should be. Any member of the population, potentially, would do. This particular approach thus would seem advisable whenever there are more persons than the identifier can work with and when he has no preferences. It could be used, for example, after the identifier has identified some potential decision-makers, has prioritized them according to his own goals for doing client C.D.I. work, and is ready to contact the first priority category of decision-makers. Draft II includes procedures for soliciting interest.

Near the end of the second field test, when the time came for evaluating the extent to which the reported data were used in decision-making, the developer followed the prescribed procedure of asking the decision-maker to recall any decisions he had made; and the developer also added a procedure calling on the decision-maker to identify any decisions he anticipates making or would like to make. It was too late to ask the decision-maker for a log of his decisions and of the data he used in making those decisions. Although the latter procedure (the log) had been an alternative in the methodology under the evaluation heading (step XI.), it was illogical not to have specified an earlier point at which the decision-maker should be asked to keep a log (or even to cause someone else to keep a log). Thus for Draft II, a procedure has

been included at an earlier stage, the purposes of which are (a) to have the decision-maker choose whether to have a log or later try to recall his decisions and data and (b) to cause the decision-maker to be self conscious about the relationship between the client demand study and his decision-making. Even if the decision-maker chooses not to maintain a log, it is believed that the request alone will stimulate him to better remember his decisions for later recall--and there may be the desirable effect of having him more consciously try to use any data that he obtains from any stage of the C.D.I. study.

It is clear to the developer that the oft-used criterion of "importance," which is part of most prioritization procedures, should be qualified for each circumstance. In other words, the identifier needs to say, when he is using the criterion: "Importance for what." For example, when he is asking the temporary decision-maker to prioritize the decision-makers, the criterion should be "importance of having them be provided with client demand data." When the identifier is asking the decision-maker to prioritize clients, the criterion should be "importance of having data about those clients' demands." When the client is asked to prioritize his demands, the criterion should be "importance of having the demand met." These changes from Draft I are expected to focus the participants' attention better than using the more generic criterion which Draft I employed. The use of multiple criteria other than "importance," however, would seem to be excellent for testing the completeness of a prioritization. Of course, wherever criteria other than importance ought to be suggested as part of the initial prioritization

zation--for example, the criterion of "sequence in which data may be needed for decision-making with respect to several domains"--then, whatever those criteria are, they should be part of the initial considerations and not just used as tests of completeness.

Draft I did not specify that the decision-maker be asked to name whatever time-frame(s) he may have in mind with respect to a domain--such as "municipal transportation services in the next three years." It seems advisable, however, to ask the decision-maker to designate time-frames, if he has any in mind. This information can be given to the client to help him focus on demands related to that period of time. Draft II incorporates procedures for this. Still, it may be advisable to ask the client initially for his demands without reference to a time-frame, and then ask him to say which of those demands are also demands that should be met within the time-frame that the decision-maker is most concerned about. Later drafts may incorporate such a procedure.

In applying C.D.I. methodology during the field tests, the developer occasionally was asked to explain procedures such as prioritization, testing for completeness, and testing for observability. Draft II therefore provides for the identifier to explain both what the next step is and the general reason for it, whenever doing so is likely to enhance the participant's ability to produce the intended outcomes for the given procedure.

Draft I called for the identifier to explain to the participant what certain prioritization criteria might mean; it is believed that

this procedure can be further specified to have the identifier be prepared to give the participant a brief written listing of those things along with the identifier's written explanation. The participant will then have something to refer to as a stimulus. The identifier should avoid giving the written explanations immediately, unless the participant appears stumped, because they may have the undesirable effect of unnecessarily limiting his freedom to operationalize criteria in such a way that his own values are freely operative in implementing the procedures.

While Draft I provided for contact with the client to be established by the identifier, in the field test the decision-maker wanted to establish the contact. In fact, the decision-maker felt there was some risk that the client would not be willing to participate unless the initial contact was made by the decision-maker. The decision-maker did make the contact, and the client did participate cooperatively. Draft II therefore provides for having the decision-maker choose whether he wishes to contact the client himself or to have the identifier do it.

During the field test the identifier encouraged participants to feel free at any time to ask questions, make comments, or raise objections. Draft II makes explicit such opportunities for impromptu expression from the participants. The identifier is likely to learn from the participants things that are problems for them or even things they really like about what they are experiencing. Obviously the problems will need to be considered; and the things that the participants like

may suggest reiteration of some procedures, addition of others, or elimination of still others from a particular application.

Draft I indicated the sense of what the basic stimulus question for the client should be: "Identifier asks the client to imagine the domain as he really desires it to be; Identifier asks the client to describe the things he wants to have happen to himself or to others (note whom) in his conception of the domain's desirable state." In implementing this step, the developer found himself stating and restating the stimulus question in somewhat different form each time--perhaps to the confusion of the client. There is probably no single, exact phrasing that can be specified in advance for all applications. Draft II prescribes some steps for building the stimulus, gives an example, and instructs the identifier to write out the stimulus for decision-maker approval. With a written stimulus available, both the identifier and the client are less likely to be confused. Moreover, if the stimulus is written and it does not seem to be working as intended, the identifier will be able to identify the flaw, if there is one, more easily. For a later draft, it seems reasonable to provide for field-testing the stimulus before actually using it.

In the procedure for operationalization of the client's demands, two hypothetical situations (stimuli) are used: one in which the demand is fully present and one in which the demand is absent. The second one is intended to elicit the "negative" ends of dimensions that the client has not thought of in responding to the first one. In Draft I, however, no procedures were provided for stating the "positive" ends,

which are attributes of the demand. There appeared to be some confusion in the minds of both the client and the identifier as to what to do with these second situation responses. In Draft II there is a procedure for making the conversion from the "negative" ends into the "positive" attributes of the demand. This specification is expected to eliminate the confusion and assure the maximal use of the responses.

As one of the tests of completeness for the client's identification of his demands, Draft I called for asking the client to do a Force-field Analysis with respect to each demand. The client was to be asked to check whether his list included strengthening the specific "driving forces" and weakening the "restraining forces" and whether thinking about them suggested other demands that he had not already listed. This procedure was not used in the field test. The developer believes that other tests of completeness specified in Draft II are sufficient, so the Force-field Analysis has been omitted from that draft.

The following chapter discusses the developer's recommendations for further research, development and application of the methodology.

CHAPTER VI

RECOMMENDATIONS FOR FURTHER RESEARCH,
DEVELOPMENT, AND APPLICATION

As suggested in Chapter II, at a point in time a developing methodology may not provide an absolute solution to the complete class of problems from which its purpose is derived. The methodologist strives, however, to approximate this concept of perfect solution within the resources actually available up to that point in time. Chapters III, IV, and V record the development, testing and immediate revision, respectively, of Draft I of C.D.I. methodology. Now, the question is, what activities can occur next? This chapter will indicate a number of possibilities.

In preparing for both Chapter V and the present chapter, the methodologist followed these steps:

1. Name all the revisions that the methodologist can think to make in Draft I without direct reference to any documentation.
2. Test the completeness of that list.
 - a. Review Draft I with its rationale (Chapter III) and note any changes to be made.
 - b. Review the field test descriptions (Chapter IV) and note any problems that suggest revising Draft I.
 - c. Review the methodologist's log and other notes pertaining to the field tests, noting any changes which might be made in the methodology.
 - d. Review the field test descriptions, noting any differences between what was done and what Draft I specified to be done, and determining whether those differences suggest revisions.

3. Write Draft II of C.D.I. methodology.
4. Abstract from Draft II the actual revisions which stem from the tests of logic and field tests; report these revisions in Chapter V.
5. Determine which of the remaining revisions, or problems, identified above are most important to discuss in terms of recommendations for further activity; discuss those in Chapter VI.
6. Identify recommendations for applying C.D.I. methodology; discuss them in Chapter VI.
7. Identify recommendations for further research; discuss them in Chapter VI.

In the Abstract, it was said that this study can best be understood as a series of successively narrower focuses from a very broad problem area to the specification, testing and revision of an operational solution to a narrow, but important, set of specific problems. Most of the present chapter can be thought of as a set of even narrower focuses: a list of things to do next, a kind of "menu" for selecting further activities in methodological research, development and application. If there is a logic to the order in which the recommendations are presented, it is that application of C.D.I. methodology may already be warranted under some circumstances; therefore, application is discussed first. Development is discussed second because further development seems reasonable and readily can be performed based on data already provided by this study. Research is discussed third because, in general, implementing the research recommendations will require more resources than will the development recommendations. Then, in the fourth, and concluding, section the approach is reversed. There, the focus is broadened to

some more general implications of the methodology.

Recommendations for Application

1. Apply the methodology in the academic advising process at the graduate level.

Based on results of the main field test, including the advisor's (as decision-maker) comments in the final session, it seems reasonable to recommend that C.D.I. methodology be applied in graduate-level advising relationships, provided that both advisor and advisee are willing participants.

2. Find additional applications.

It is reasonable to believe that other situations exist to which C.D.I. methodology can be applied in its current form. They might be one-to-one "helping relationships" or they might be more complex situations. Draft II provides some procedures for identifying potential applications.

Recommendations for Development

3. Specify procedures for identifying and allocating resources among the parts of the methodology for purposes of application.

The identifier should have procedures by which the resources that are available for client demand identification can be identified as such and can be allocated among the parts of the methodology for a particular application. Draft II provides some procedures for this purpose.

4. Design standard forms where appropriate.

For some of the procedures, standard forms can be designed for use by the identifier or other participants. Resource allocation and scheduling charts can be designed as has been done for Draft II. One or more standard forms can be developed for service agreements. Instruments can be standardized in format as has been done in part within Draft II. Other forms are possible.

5. Provide examples where doing so will help the identifier perform a step which has not yet been fully operationalized.

For instance, an identifier will be aided in constructing appropriate hypothetical situations if he is given examples. Draft II provides two such examples of stimuli and other examples for other steps. It would be desirable to have more.

6. Revise the rationale for the procedures as new procedures are developed.

Draft II provides a number of new specifications for which rationale can be written. As development continues, so will the need for written rationale.

7. Design a recommended short route through the procedures.

What is the shortest form of the procedures that an identifier can follow, presumably with minimal resources, and still be said to be identifying client demands? What resource allocations should be made to each such step?

8. Design some procedures whereby an identifier can prepare to apply client demand identification methodology.

Preparatory procedures would include such things as learning the methodology, determining one's own goals for applying C.D.I. methodology, and identifying client demand for application of the

methodology. Draft II has some preparatory procedures, but they are incomplete.

9. Provide for taking advantage of serendipitous occurrences.

In notes to the identifier and possibly in specifications, the identifier should be advised to look for, and use, the "unexpected." For instance, in the main field test of Draft I, the advisee (as client) mentioned that he had written a paper a year earlier on his life goals, at the request of his advisor. The identifier was later able to use that paper as a test of completeness for the advisee's demands with respect to advisement.

10. Design sub-sets of procedures for dealing with different kinds and sizes of decision-makers and clients.

Certain procedures can be expected to differ between decision-makers who are individual persons and those who are groups. Similarly, different procedures may be required for clients who number in the hundreds or thousands than for individual clients. Some of the differences involve sampling and alternative instrumentation. Draft II provides some procedures related to the recommendation.

11. Provide procedures for measuring and reporting the extent to the client demands are met or unmet.

Procedures for this purpose would enable C.D.I. methodology to become Client Demand Analysis methodology, which could provide additional needed data for decision-making. The measurement process being developed for Fortune/Hutchinson Evaluation Methodology (Hutchinson, 1972b) and for Needs Analysis Sub-methodology for Education of the Handicapped (Hodson, Hutchinson, Thomann and

Coffing, 1973) are considered adaptable for client demand analysis. And reporting procedures can be adapted as well (Hutchinson, 1972c).

12. Develop procedures for integrating this methodology with other methodologies.

How might client demand methodology be employed as part of Needs Analysis Methodology (Coffing and Hutchinson, 1972), for instance? As part of Fortune/Hutchinson Evaluation Methodology (Benedict, 1973)? As part of a methodology for promoting the General Welfare (Hodson, Coffing and Hutchinson, 1972)? As part of Hutchinson/Thomann Metamethodology (Thomann, 1973)? And then how might other methodologies be employed as part of client demand methodology-- for instance, Fortune/Hutchinson Evaluation Methodology?

13. Develop sub-methodologies.

It seems reasonable to develop sub-methodologies for special circumstances in which the methodology might be used often. For example, a sub-methodology for the advisement process could be developed which would be a refinement of the general C.D.I. methodology. A sub-methodology would include tailor-made procedures such as standardized test-of-completeness materials and would exclude procedures that are not needed for the particular class of applications. Moreover, the general methodology could include the procedures whereby an identifier might develop sub-methodologies, as needed.

Recommendations for Research

Research as used here includes both conclusion-oriented research, the purpose of which is to produce generalizable knowledge, and decision-oriented research, the purpose of which in this case is to produce data for decision-making with respect to methodological development.

The latter includes tests of logic and field tests.

14. Conduct tests of logic with additional persons.

Some gaps in the methodology might be identified by having additional persons review the rationale and procedures at the Draft II stage. The reviewers should include current public service decision-makers as well as methodologists. Whenever sub-methodologies are developed also, then tests of logic should be performed by persons acquainted with the special area of application.

15. Field test Draft II under alternative "simplest available conditions."

In addition to graduate-level advising, there are other relatively simple situations in which Draft II could be field-tested. As suggested in Chapter IV, the "helping professions" have many of these, and others can probably be identified.

16. Field test where the temporary decision-maker will determine the priorities of the decision-makers.

In the reported field tests of Draft I, the methodologist did not use temporary decision-maker priorities for selecting the first (next) decision-maker with whom to work. Instead, the decision-maker was selected directly by contact from the methodologist.

This was deemed to be an appropriate course for initial field testing, but in the next field test the procedures could be followed without such an arbitrary break.

17. Field test where certain parts of the methodology definitely can be tested.

Field tests should be conducted that would test, for example, the identification of demands where the client is a group rather than an individual. Another example would be the identification of decision-maker concerns about domains and clients where the decision-maker is a group rather than an individual.

18. Follow a more systematic gap analysis procedure in field testing.

While the procedures used in this study were reasonable for initial field testing of C.D.I. methodology, subsequent testing might employ more systematic analysis. For each methodological specification, one might record in tabular form the answers to questions such as, was the specified procedure performed? and, did the intended outcome occur? Part of such a gap analysis procedure might look something like the following draft:

- I. Determine whether the first (next) specified procedure was actually performed.
 - A. If yes, go to step II.
 - B. If no, go to step III.
 - C. If no procedures remain to be analyzed, this gap analysis procedure is completed.
- II. Determine whether the specified procedure had the intended outcome.
 - A. If yes, was that outcome appropriate, given

the rest of the application?

1. If yes, are there any changes at all implied?
 - a. If yes, identify them.
 - b. Go to step I.
 2. If no, are there any changes at all implied?
 - a. If yes, identify them.
 - b. If no, reconsider whether the outcome was not appropriate and go to step II. A.
 - c. Go to step I.
- B. If no, was the outcome appropriate, nevertheless, given the rest of the application?
1. If yes, are there any changes at all implied?
 - a. If yes, identify them.
 - b. Go to step I.
 2. If no, are there any changes at all implied?
 - a. If yes, identify them.
 - b. If no, reconsider whether the outcome was not appropriate and go to step II. B.
 - c. Go to step I.

III. Determine whether the intended outcome occurred anyway.

- A. If yes, go to step II. A.
- B. If no, go to step II. B.

19. Conduct conclusion-oriented research on the power of various tests of completeness.

Another recommendation for research would be to determine which alternative tests of completeness appear to work best under what circumstances and in what order.

20. Conduct research on alternative forms of the basic operationalization stimuli.

For operationalizing client demands, alternative forms of the hypothetical situations may have different degrees of effectiveness in interaction with different persons. One could attempt to develop predictive measures of which forms to use based on, for instance, various aptitude measures.

Some Implications of the Methodology

Beyond the internal development of C.D.I. methodology there are some broader implications that are important to discuss, some implications that arise from the existence of the methodology even in its current form. One of these is the feasibility of more directly communicating the desires, needs, wants of people as defined by them. There are as yet no guarantees that such communication can be made on a large scale, certainly, but it seems possible. Given the existence of C.D.I. methodology, it seems more possible, now, that public service decision-makers who want such information will be able to get it. It also seems possible that constituent groups may be enabled to better communicate their demands by themselves employing C.D.I. methodology. A number of organizations have formed in recent years for the purpose of influencing public decision-making: Common Cause, Ralph Nader's "Public Citizen," the National Organization for Women, the National Welfare Rights Organization--to mention a few at the national level alone. Conceivably, a form of C.D.I. methodology can be employed by constituent groups in such a way that less ambiguous, and more clearly

representative, communications can occur.

Another implication is that "metamethodology" as conceived by Hutchinson (Thomann, 1973) can provide a viable set of concepts and procedures for developing social science methodology. The present study was not designed as a specific test of "metamethodology," but the existence of a C.D.I. methodology which has actually accomplished its defined purpose on even a limited scale implies that other methodologies can be developed for other human purposes.

The existence of both the "metamethodology" and C.D.I. methodology implies that it is possible to fill some important, identifiable gaps in certain fields. In the field of public planning, for instance, there is a gap in the area of "identifying the public interest" (Wheaton and Wheaton, 1972) which it appears C.D.I. methodology can help fill. In the methods of planning-programming-budgeting, there is a similar gap in terms of the "objective function," the formulation of goals which a P.P.B. system is supposed to optimize. C.D.I. methodology may contribute to the formulation of goals based on what constituents desire. In education and other areas of public administration, the existence of C.D.I. methodology implies the possibility of turning the concept of "accountability" into a methodology for accomplishing public ends.

At perhaps the broadest level, C.D.I. methodology conceivably can be instrumental in promoting the general welfare by providing a piece of General Welfare Methodology. In reviewing the author's dissertation proposal (Coffing, 1971), a member of the committee, Stanley Young,

observed that the proposed development appeared to represent a new and potentially viable way to identify the General Welfare--a problem of theoretical and practical concern to political theorists, economists and public administrators. The issue is related to Young's conceptual work on "organizational programming" (Young and Coffing, 1971), which was one of the two major intellectual stimuli for this current C.D.I. development effort (the other major stimulus being Hutchinson's conceptualization of "metamethodology"). The concept of a General Welfare Methodology was discussed from time to time in the ensuing year with Young, Hutchinson and others, and in June, 1972, the author wrote a brief first conceptualization, which demonstrates how direct this implication of C.D.I. methodology actually has been:

A Methodology for Promoting the General Welfare--Draft I

Richard T. Coffing, June 8, 1972

(Alternative title: A Methodology for Increasing the Value of Organizational Decisions in Terms of the Personal Welfare of the Constituent Persons)

- 1.0 Identify the personal welfare of the constituent persons.
- 2.0 Determine to what extent the personal welfare of the constituent persons is unmet.
- 3.0 Design or redesign methods (e.g., methodologies, programs, agencies) for meeting personal welfare of the constituents, given the results of 2.0.
- 4.0 Implement the methods.
- 5.0 Evaluate the implemented methods, using Fortune/Hutchinson Evaluation Methodology.
 - 5.1 If welfare met, then re-evaluate periodically.
 - 5.2 If welfare not met, then go to 3.0.

- 5.3 If welfare changes, then go to 1.0.
- 6.0 Repeat steps 1.0 and 2.0 as often as necessary to identify and/or determine unmet welfare.

Subsequently, William Alan Hodson became the principal developer; Draft II has been developed (Hodson, Coffing and Hutchinson, 1972); and it is being initially field tested by Hodson.

The general welfare implications of C.D.I. methodology bring the discussion back to the very broad problem area with which this study began: the functioning of the political system. Only, now another dimension of that very broad problem area has been identified: the methodological. And the development of a methodology aimed at solving a piece of the broad problem turns out to have stimulated methodological development aimed at solving the broadest problem itself. This is perhaps a good way rhetorically, at least, to demonstrate that the development of C.D.I. methodology may represent the establishment of an essential (and heretofore missing) link between the micro and macro conceptions of human welfare. C.D.I. methodology perhaps provides a means by which the subjective concerns of individual people can be objectively communicated; the methodology may give operational meaning to the welfare purposes which the author believes are in fact the primary purposes of all social organization. It may help promote the General Welfare. Further development can tell, and Draft II appended to this study is the next modest step in the development of Client Demand methodology.

APPENDIX

CLIENT DEMAND IDENTIFICATION METHODOLOGY--DRAFT II

Richard T. Coffing¹
University of Massachusetts

March 1973

Purpose

The purpose of this methodology is to provide client demand data for public service decision-making.

Role Definitions

Identifier: a person who applies this methodology.

Temporary Decision-maker: a person who controls the resources available for applying the methodology.

Decision-maker: a person or group for whose decision-making use some client demand data are to be provided.

Client: a person or group whose demands a decision-maker wants to have identified as defined by the client.

¹The methodologist gratefully acknowledges major contributions to this draft by Thomas E. Hutchinson and William Alan Hodson and critical reviews by Stanley Young, James Thomann, M. Venkatesan, David S. Flight, William Wolf, Jr., Larry Benedict, Leon Jones and graduate students in the methodologist's course on Client Need Analysis. Portions of this draft have been adapted from Needs Analysis Sub-methodology for Education of the Handicapped. Development of the latter was sponsored during 1972-73 by a grant from the Connecticut State Department of Education through Area Cooperative Educational Services, North Haven, Connecticut, with the methodologist as principal investigator and project director.

Outline of Main Elements

- I. Identifier prepares to implement C.D.I. methodology.
- II. Identifier negotiates a service agreement.
- III. Identifier plans the C.D.I. design(s).
- IV. Decision-maker identifies the domains and clients of concern to him.
- V. Client identifies his demands with respect to a domain.
- VI. Client operationalizes his demands.
- VII. Identifier reports client demand data to the decision-maker.
- VIII. Identifier evaluates each design.
- IX. Identifier redesigns, as necessary.

Procedures

- I. Identifier prepares to implement C.D.I. methodology.
 - A. Identifier determines the amount of time and other resources he has for these preparation activities, and he plans to complete them within those resources.
 - B. If identifier has learned the methodology and its rationale, he goes to step I. D.
 - C. Identifier learns the methodology and its rationale.
 1. Identifier reads available documentation of the methodology (see Coffing, 1972, 1973, or more recent documentation, if known).
 2. Identifier participates in a course or workshop on the methodology, if available.
 3. Identifier practices the methodology.
 4. If there are any parts of the methodology the identifier does not understand, he consults other identifiers, the developer of this methodology, or other methodological developers.

I. (Continued)

- D. If identifier has previously specified his own goals for applying C.D.I. methodology and the goals have not changed, he goes to step I. F.
- E. Using the Goals Process of Fortune/Hutchinson evaluation methodology (Benedict, 1972), identifier specifies his own goals for applying C.D.I. methodology. (For example, he may desire to spend half of his time for the next year doing C.D.I. work; he may want at least half of his C.D.I. work to provide client demand data pertaining to a particular group of persons; he may want an income of a certain amount for doing C.D.I. work.)

Note: The identifier should plan to undertake only those C.D.I. applications which he believes will help accomplish those goals.

- F. Identifier identifies client demands for applying C.D.I. methodology--that is, he identifies client demands for "being provided with client demand data for public service decision-making."
- G. Given his own goals for doing C.D.I. work and given his identification of client demands for applying C.D.I. methodology, identifier chooses the next step to be performed.
 - 1. If identifier thinks client demands for applying C.D.I. methodology are likely to produce sufficient C.D.I. work to fulfill his goals, he goes to step I. H.
 - 2. If identifier does not think the demands are sufficient to produce C.D.I. work that will fulfill his goals, he chooses the next step to be performed.
 - a. If he wants to alter client demands for C.D.I. work in the direction of fulfilling his goals, he develops and implements a plan for promoting C.D.I. services, then goes to step I. F.
 - b. If he wants to reconsider his goals, he goes to step I. E.
 - c. If he wants to quit, he stops here.
 - 3. If identifier's goals are completely fulfilled or there are no remaining demands for applying C.D.I. methodology, identifier stops here.

I. (Continued)

- H. Identifier prioritizes the clients for C.D.I. data in terms of his own goals for doing C.D.I. work.
- I. According to his priorities, identifier contacts each client in turn until he finds one who wants to begin negotiating a service agreement or until no more clients remain to be contacted.
- J. If no more clients remain to be contacted, identifier goes to step I. G. 2.
- K. If there is a client who wants to begin negotiating, identifier screens the potential application in terms of appropriateness of the methodology and in terms of desirability from the perspective of identifier's goals.

II. Identifier negotiates a service agreement.

- A. Identifier explains to the temporary decision-maker (see Role Definitions above) the nature and purpose of C.D.I. methodology.
- B. Identifier and temporary decision-maker determine the total amount of resources--identifier's time, temporary decision-maker's time, travel money, and so on--that are available for negotiating a service agreement.
- C. Identifier and temporary decision-maker plan how to complete their negotiations within the available negotiation resources --that is, they allocate those resources to the remaining activities of step II.
 - 1. Identifier and temporary decision-maker fill in the blanks in the Negotiation Resource Allocation Chart (NRAC) shown in Figure 1.
 - 2. Identifier and temporary decision-maker plan a schedule for negotiation.
- D. Identifier and temporary decision-maker determine preliminarily what resources are available for implementing the methodology.
 - 1. Identifier explains to temporary decision-maker that implementing the methodology will require peoples' time and expenses--not only the time of the identifier but also of the temporary decision-maker, the decision-makers

Figure 1. NEGOTIATION RESOURCE ALLOCATION CHART (NRAC)

Negotiation Step	Resource		Total Resources	Temporary Decision-maker's Time	Identifier's Time	Others' Time	Other Resources
	%	Amount					
		Amount %					
XXXXXXXXXXXXXXXXXXXX	100%						
D. Preliminary Resource Identification							
E. Identification of Decision-makers							
F. Allocation of Resources to Decision-makers							
G. Determination of Other Service Agreement Provisions							
H. Approval of the Service Agreement							

II. D. 1. (Continued)

(see Role Definitions) for whom data are to be provided, the clients of concern, and so on; further, the identifier explains that C.D.I. work must be done within the available resources.

2. Identifier suggests that the temporary decision-maker should identify preliminarily a minimum, attainable level of resources to allocate to C.D.I. work, explaining that, at the temporary decision-maker's option, the allocation can be changed during negotiations as he learns the implications of a particular level of resource allocation.
 3. Identifier asks temporary decision-maker to identify the resources (at least a minimum, attainable level) that are available for C.D.I. work.
 4. Identifier records those resources that are identified by the temporary decision-maker.
- E. Temporary decision-maker identifies the decision-makers for whom client demand data are desired.
1. Given the resources that are allocated to step II. E. in the completed Negotiations Resource Allocation Chart, the identifier allocates those resources to the remaining activities of this step and plans to complete the step within those resources.
 2. Identifier asks temporary decision-maker to provide a list of the decision-makers (individuals or groups) for whom client demand data are desired.

Note: The list may be provided in writing or it may be constructed by the identifier as he listens to the temporary decision-maker. If the latter is done, then the temporary decision-maker should be asked to review and approve or modify the resulting list.
 3. If the list of decision-makers is not broken down into one decision-maker to a line, the identifier and temporary decision-maker break it down together.
 4. Identifier tests the completeness of the list.
 - a. Identifier explains that "testing for completeness"

II. E. 4. a. (Continued)

is intended to provide the temporary decision-maker with additional perspectives that may stimulate him to think of additional decision-makers for whom he desires client demand data.

- b. Identifier asks temporary decision-maker to review a potentially broader list of persons and to modify his list if he so chooses.
 - (1) Identifier obtains a list of all persons associated in some way with the enterprise(s) with which the temporary decision-maker is concerned.
 - (2) Identifier asks temporary decision-maker to examine the list of all persons and to ask himself for each person whether that person is an individual decision-maker or a member of a decision-making group for whom client demand data are desired.
 - (3) Identifier records any changes which temporary decision-maker chooses to make in his list.
 - c. Identifier asks temporary decision-maker to review another person's list.
 - (1) Identifier asks temporary decision-maker to name another person whose perspective he respects but which might be different from his own and from whom a list should be obtained.
 - (2) Identifier obtains the other person's list of decision-makers who he believes should be provided with client demand data for decision-making.
 - (3) Identifier asks temporary decision-maker to examine the other person's list and to ask himself for each item on it whether that individual or group is a decision-maker for whom he, the temporary decision-maker, desires client demand data.
 - (4) Identifier records any changes which temporary decision-maker chooses to make in his list.
5. Identifier asks temporary decision-maker to eliminate

II. E. 5. (Continued)

from the list any decision-maker who the temporary decision-maker believes will not willingly cooperate in a C.D.I. application.

6. Identifier asks temporary decision-maker to approve or further modify the list of decision-makers for whom he desires client demand data.
- F. Temporary decision-maker allocates resources to those decision-makers for whom client demand data are to be provided.
1. If there is only one decision-maker for whom client demand data are desired, identifier goes to step II. F. 4.
 2. Given the resources that are allocated to step II. F. in the completed Negotiation Resource Allocation Chart, the identifier allocates those resources to the remaining activities of this step and plans to complete the step within those resources.
 3. Temporary decision-maker prioritizes the decision-makers.
 - a. Identifier explains to temporary decision-maker that prioritization is a prerequisite for allocating resources for C.D.I. work.
 - b. Identifier asks temporary decision-maker to prioritize the list of decision-makers in terms of the importance of their being provided with client demand data.

Note: Prioritization is completed when temporary decision-maker decides he has rank-ordered all the decision-makers for whom he wants to allocate resources under the service agreement.
 - c. If temporary decision-maker asks identifier for advice on how to prioritize according to the criterion, identifier asks him to draw from the list, without replacement, the one decision-maker who should be provided with client demand data if only one decision-maker could have it, then to reiterate the procedure for the remaining list until prioritization is completed.
 4. Temporary decision-maker identifies the total resources

II. F. 4. (Continued)

that are available for implementing the methodology for those decision-makers.

- a. Identifier asks temporary decision-maker whether he wants to make any changes in the preliminary determination of resources from step II. D. 3.
- b. If temporary decision-maker does not want to change the resource determination, identifier goes to step II. F. 5.
- c. If temporary decision-maker wants to change the resources, identifier asks him to say what changes he wants to make.
- d. Identifier records any changes.
- e. Identifier tests the completeness of the temporary decision-maker's list.
 - (1) Identifier asks temporary decision-maker to consider availability of the following kinds of resources, if he has not already done so, and to make any changes in his list that he may choose:
 - Decision-maker(s) time
 - Client(s) time
 - Temporary decision-maker time
 - Time of persons who might provide test-of completeness materials at any point in the C.D.I. design.
 - Volunteer time
 - Clerical time
 - Identifier's time
 - Time of other persons who might assist identifier
 - Supply and expense funds

II. F. 4. e. (1) (Continued)

- Office space
- Clerical equipment
- (2) Identifier asks temporary decision-maker to consider at least one other person's list of resources.
 - (a) Identifier asks temporary decision-maker to name at least one other person whose perspective he respects but which may be different from his own and from whom a list should be obtained.
 - (b) Temporary decision-maker or identifier obtains the other person's list.
 - (c) Identifier asks temporary decision-maker to examine the other person's list and to consider making any modifications in his own list that may be suggested.
- (3) Identifier asks temporary decision-maker whether there are additional sources of resources such as public agencies, private enterprises, charitable or educational organizations, foundations, and so on, and to consider making any modifications in his list that may be suggested.
- f. Identifier records any changes.
- g. Identifier asks temporary decision-maker to confirm his resource list with any modifications he has chosen to make.
- 5. Temporary decision-maker allocates the available resources to the decision-makers for whom client demand data are desired.

Note: At any point in the following process that the identifier thinks appropriate, he should point out some implications for resource allocation that are suggested by the nature of particular decision-makers on the list. As a general rule, for example, more resources will be required to provide a given level of client demand data for

II. F. 5. (Continued)

a group decision-maker than for an individual decision-maker.

- a. Identifier asks temporary decision-maker whether he wants to allocate resources evenly to each of the prioritized decision-makers (for example, 25% to each of four decision-makers).
- b. If the temporary decision-maker wants to allocate resources evenly, identifier goes to step II. F. 5. h.
- c. Identifier asks temporary decision-maker whether he wants to allocate 95% or more resources to the first priority decision-maker and the remaining resources to all the rest.
- d. If temporary decision-maker wants to allocate 95% or more resources to the first priority decision-maker, identifier asks what the percentage allocation should be and goes to step II. F. 5. h.
- e. Identifier asks temporary decision-maker whether he wants to allocate resources according to the following formula: (100% divided by the sum of the ranks of the prioritized decision-makers) times the reverse order of the ranks.

Note: Identifier should do the calculation before asking the question, so he can then show what this calculation produces. An example of this formula for four prioritized decision-makers would be:

$$\frac{100\%}{1+2+3+4} = \frac{100\%}{10} = 10\%$$

10% X 4 = 40% for 1st priority decision-maker
 10% X 3 = 30% for 2nd priority decision-maker
 10% X 2 = 20% for 3rd priority decision-maker
 10% X 1 = 10% for 4th priority decision-maker

- f. If temporary decision-maker wants to allocate resources according to the formula in step II. F. 5. e., identifier goes to step II. F. 5. h.
- g. Identifier asks temporary decision-maker whether he

II. F. 5. g. (Continued)

wants to allocate resources more evenly or more unevenly than the formula in step II. F. 5. e. and then recycles through steps II. F. 5. e., f. and g. for the new range(s) established by the answer, until the temporary decision-maker chooses a percentage allocation.

- h. Identifier constructs a blank Design Resource Allocation Chart (DRAC) as shown in Figure 2.
- i. Identifier enters the percentage for each decision-maker in the spaces provided in that decision-maker's column, and he enters the total % and amount in the "Total Resource" column of the DRAC.
- j. Identifier distributes the amounts of available resources among the decision-makers according to the percentages.
- k. For each decision-maker (i.e., within each DRAC column), identifier distributes resources among the remaining steps of the methodology.
 - (1) Identifier examines the percentage distributions shown in Figure 3 and makes any changes that are suggested by the circumstances of the particular service agreement.
 - (2) In the DRAC, identifier distributes to the remaining steps the amounts of each category of resources according to the percentages he decides.
- l. Identifier examines the completed DRAC for its implications for C.D.I. design, and makes any adjustments not in conflict with temporary decision-maker's allocation among decision-makers.
- m. If there is any implication which suggests to the identifier that one or more allocations should be reconsidered by the temporary decision-maker, identifier tells the temporary decision-maker what the implication is and asks the temporary decision-maker whether he wants to make some alternative allocation.
- n. If temporary decision-maker makes some alternative allocation, identifier recycles to II. F. 5. l. for that change.

Figure 2. DESIGN RESOURCE ALLOCATION CHART (DRAC)

Step	All Resources		Allocation to No.1 Decision-maker		Allocation to No.2 Decision-maker		(Reiterate for each Additional Decision-maker)
	%	Amount	%	Amount	%	Amount	
	100	XXXX		XXXX		XXXX	
III-IX Total							
Temporary Decision-maker Time							
Decision-maker Time							
Clients' Time							
Other Persons' Time							
Identifier's Time							
Other Resources							
III Sub-total							
IV Sub-total							
V Sub-total							
VI Sub-total							
VII Sub-total							
VIII Sub-total							
IX Sub-total							

Figure 3. SOME PERCENTAGE DISTRIBUTIONS OF RESOURCES AMONG THE DESIGN STEPS (III-IX) FOR A GIVEN DECISION-MAKER

Category of C.D.I. Resource

Design Step	Temporary Decision-maker Time	Decision-maker Time	Clients' Time	Other Persons' Time	Identifier's Time	Other Resources
III	50%	20%			8%	5%
IV		40%	5%	20%	7%	10%
V			25%	30%	20%	15%
VI			65%	40%	40%	35%
VII		10%			7%	20%
VIII	20%	15%	5%	10%	10%	5%
IX	30%	15%			8%	10%
TOTALS	100%	100%	100%	100%	100%	100%

II. F. 5. (Continued)

- o. Identifier asks temporary decision-maker to review the DRAC and modify or approve all entries.
- G. Identifier and temporary decision-maker determine other service agreement provisions (for example, duration of the agreement, continuing responsibilities of the temporary decision-maker, payment schedule, reporting schedule, confidentiality, incorporation of the methodology into the agreement by reference, and so on) at a level of detail which they believe is appropriate to the particular circumstances.
- H. Given an agreement acceptable to them, identifier signs the agreement and temporary decision-maker signs or secures approval from whoever must approve the agreement by law or policy.

III. Identifier plans the C.D.I. Design(s).

- A. From the Design Resource Allocation Chart (DRAC) of the service agreement, identifier allocates the resources for step III to the activities of this step and plans to complete the step within those resources.
 1. Identifier constructs a blank Planning Resource Allocation Chart (PRAC) as shown in Figure 4.
 2. Identifier allocates on the chart the resources available for step III activities.
- B. Identifier secures the cooperation of the decision-makers.
 1. Identifier arranges a meeting with each decision-maker who is available.
 - a. Identifier explains the nature and purpose of C.D.I. methodology and of the service agreement.
 - b. Referring to the service agreement DRAC, identifier asks decision-maker to confirm the amount of time he is willing to make available to the identifier.
 - c. If there are differences greater than 10% between the service agreement DRAC and the decision-maker's response, identifier asks temporary decision-maker to resolve the differences.
 - d. Identifier asks decision-maker to say what is his

Figure 4. PLANNING RESOURCE ALLOCATION CHART (PRAC)

Step III Planning Activity	1st Priority Decision-maker	2nd Priority Decision-maker	(Reiterate For Each Additional Decision-maker)
Total Allocated to Step III from DRAC			
Step III. A.			
Step III. B.			
Step III. C.			
Step III. D.			
Step III. E.			
Step III. F.			
Step III. G.			
Step III. H.			

III. B. 1. d. (Continued)

last date of availability within the agreement period and any known periods of unavailability; and identifier records those dates.

2. For any decision-maker who is not available to meet with identifier, identifier asks temporary decision-maker to provide him with the first and last dates when the decision-maker will be available within the agreement period and any known dates of unavailability.
 3. If any information sought in steps II. B. 1. and II. B. 2. remains unknown, identifier periodically seeks the information.
 4. In accordance with the service agreement's provisions for modification, identifier makes any changes that the temporary decision-maker approves in the DRAC, resulting from securing decision-maker cooperation.
- C. Identifier plans a sequence through steps IV to IX of the methodology.
1. Identifier constructs a blank Design Schedule Chart (DSC) as shown in Figure 5.
 2. Identifier enters on the DSC, all known availability information.
 3. Identifier plans the beginning and ending dates for steps IV to IX for each decision-maker.
- D. Identifier implements step IV for the scheduled decision-makers; and when the step is completed for any decision-maker, identifier goes to step III. E.
- E. Identifier or decision-maker secures the cooperation of clients.
- F. Identifier plans a sequence by client and domain through the activities of steps V to IX for a particular decision-maker and then identifier goes to step V.
- G. Identifier reports to temporary decision-maker the status of the plans, and he asks temporary decision-maker to make any specific decisions that identifier may require in implementing the methodology (for example, a change in availability of a Decision-maker may suggest a change in resource allocation).

Figure 5. DESIGN SCHEDULE CHART (DSC)

For ____-Priority Decision-maker _____ (name) _____

First Date Available	
Last Date Available	
All Known Periods of Unavailability	
Schedule for Step IV	
Schedule for Step V	
Schedule for Step VI	
Schedule for Step VII	
Schedule for Step VIII	
Schedule for Step IX	

- IV. Decision-maker identifies the domains and clients of concern to him.
- A. Given the Design Resource Allocation Chart (DRAC) and the Design Schedule Chart (DSC), identifier allocates the resources available for step IV to the activities of the step and plans to complete the step within those resources.
1. Identifier constructs a blank Domain-Client Resource Allocation Chart (D-CRAC) as shown in Figure 6.
 2. Identifier allocates on the chart the resources available for step IV activities.
- Note: Only those activities should be scheduled that can be accomplished within the available resources. For example, if time of the decision-maker is minimal then most testing for completeness may need to be eliminated.
- B. Identifier arranges a meeting with the particular decision-maker.
1. Identifier explains in brief the nature and purpose of C.D.I. methodology and of the service agreement.
 2. Identifier asks decision-maker to comment or raise any questions at all that occur to him during the C.D.I. procedures, and tells the decision-maker that he will try to answer them in the context of the methodology either immediately or at some other point.
 3. Identifier shows decision-maker the schedule which identifier has planned for C.D.I. work with him, asking decision-maker to approve the schedule or suggest modifications.
 4. Identifier responds to any suggested modifications by making the changes or by explaining why a particular change cannot be made in view of the schedule for other steps and for other design-makers.
 5. Identifier asks decision-maker to agree to the resulting schedule.
 6. If a series of meetings will be required, identifier and decision-maker establish those appointments.
- C. Identifier decides whether to have decision-maker identify

Figure 6. DOMAIN-CLIENT RESOURCE ALLOCATION CHART (D-CRAC)

For Decision-maker _____ (name) _____

Total Resources Allocated to This Step from DRAC	
Allocation to Step IV. A.	
Allocation to Step IV. B.	
Allocation to Step IV. C.	
Allocation to Step IV. D.	
Allocation to Step IV. E.	
Allocation to Step IV. F.	
Allocation to Step IV. G.	
Allocation to Step IV. H.	

IV. C. (Continued)

domains first or clients first--based on identifier's estimate of which alternative will give decision-maker the greater freedom to fully identify what he is most concerned about.

Note: If the identifier has no reason for choosing one alternative over the other for this particular decision-maker, he should have the decision-maker identify clients first.

D. If identifier chooses to have decision-maker identify domains first, identifier goes to step IV. G.

E. Identifier explains in brief the evaluation procedures of the methodology (step VIII), and asks the decision-maker to begin keeping, or cause to be kept, a log of decisions that he makes pertaining to domains or clients of concern to him. Identifier further explains that the purpose of this request is to begin observing as early as possible the decisions for which client demand data may be needed but is not available. The log should include if possible some indication of the data of any kind that he used and the data of any kind that he wanted but did not have.

F. Decision-maker identifies the clients of concern to him.

1. Identifier asks decision-maker to make a list of all the clients he can think of with whom he is concerned; clients may be listed as individual persons, groups or categories.

a. If the list is given orally, then identifier takes notes or tape-records what decision-maker says and then transcribes the list as soon as possible.

b. Identifier re-writes the list if necessary in order to have one client (individual, group or category) per line, and asks decision-maker to approve the analysis or change it.

2. Identifier tests the completeness of the list, asking decision-maker to modify his list accordingly, if he chooses.

a. Identifier explains that tests of completeness are intended to stimulate a decision-maker to think of other clients with whom he really is concerned but who he happened to omit from his initial list.

IV. F. 2. (Continued)

- b. Identifier asks decision-maker to make a list of all the clients he can think of with whom he is not concerned, explaining that sometimes such clients turn out to be of concern or listing them may suggest other clients who are of concern.
 - c. Identifier furnishes decision-maker with lists from other persons:
 - Available lists from other decision-makers;
 - Lists from persons designated by the decision-maker as having perspectives he respects but which may be different from his own;
 - Lists developed from sources related in some way to decision-makers' responsibilities such as statutes, regulations, correspondence, complaint registers, payrolls, membership rosters, subscription lists, application files, voter registers, license registers, editorials, patient records, clinic files, enrollment records, tax rolls, and police blotters;
 - Lists of identified clients of other, similar enterprises or service areas;
 - Lists from already identified clients, indicating other clients they think of;
 - Results of survey research in which persons have identified themselves as clients.
 - Lists from any other sources designated by the decision-maker.
 - d. Identifier asks decision-maker to think of persons who have nothing whatsoever to do with his areas of responsibility and then to seriously consider whether or not they really are clients of concern to him.
3. Identifier asks decision-maker to eliminate from his list any clients whose demands he does not want any data about.
 4. Decision-maker prioritizes the list of clients.

IV. F. 4. (Continued)

- a. Identifier explains to decision-maker that prioritization is prerequisite to resource allocation for implementing the rest of the methodology.
- b. Identifier asks decision-maker to number the clients in order of the importance of his having data about their demands as defined by them during the period of the service agreement. Decision-maker begins with number 1 for the most important client, number 2 for the next most important, and so on, until prioritization is completed.

Note: Decision-maker should be told that he should stop prioritizing when he has ranked all clients from whom he wants some client demand data during the period of the service agreement.

- c. Identifier tests the completeness of the decision-maker's prioritization, asking him to modify the priorities accordingly, if he desires.
 - (1) Identifier reiterates the purpose of testing for completeness.
 - (2) Identifier shows decision-maker a list of defined criteria (see Figure 7) that may suggest alternative priorities to him.
 - (3) Decision-maker reviews one or more alternative prioritizations of the same clients.
 - (a) Identifier asks decision-maker to designate at least one other person whose perspective he respects but which may be different from his own and from whom a prioritization should be obtained.
 - (b) Either the decision-maker or the identifier obtains the alternative prioritizations.
 - (c) Decision-maker makes any changes in his prioritization that he chooses.
5. Identifier furnishes decision-maker with a neat copy of the prioritization, asking him to make any final changes and approve it.

Figure 7. SOME DEFINED PRIORITIZATION CRITERIA

-- Importance to the decision-maker

The criterion, 'importance to the decision-maker for purposes of his decision-making,' is likely to have some subjective meaning for the decision-maker. The criterion might be applied by asking the decision-maker to name the most important client/constituent, putting that one first, then to name the least important, putting that one last; work up a complete priority ranking from both ends.

-- Urgency of obtaining the data

The decision-maker may want data from certain clients first--perhaps because he has decisions to make with respect to them before decisions with respect to others, or perhaps one client is adversely influencing the enterprise as the decision-maker sees it.

-- Importance of paying at least some attention to an individual or client group

There may be a number of clients which the decision-maker wants to attend to, or at least give the appearance of attending to; these should be indicated, probably as a dichotomous ranking, in combination with other approaches.

-- Actual or potential support for the enterprise

The decision-maker may want to obtain client demand data first from those persons who actually support or potentially might support the enterprise in some way--such as making a large bequest in the case of a private university or voting for a bond issue in the case of a public hospital.

-- Estimated level of client dissatisfaction

The decision-maker may be concerned initially with learning more specifically what the most dissatisfied clients want; for instance, when the city's burning, a comprehensive study of the demands of all citizens may not be the most expeditious means of putting out the fire.

-- Accessibility

It may be impractical--too costly, for example--to gain access to certain clients; the judgment might be made that the easiest-to-reach clients be studied first. In doing a C.D.I. study for a state mental health program, one might not wish to begin with clients who have been judicially committed to an institution as dangerous to themselves or others.

Figure 7. SOME DEFINED PRIORITIZATION CRITERIA (Continued)

- Decision-maker doubt as to what a client's demands are
The decision-maker may be confident he knows the specific dimensions of some or many clients, and he may therefore be much more concerned about the demands of those clients he is less confident about.
- Draw from the list, without replacement, the one client whose demands should be identified if identification could be done for only one client; reiterate until prioritization is completed.

IV. F. (Continued)

6. Identifier reminds decision-maker of the decision log and asks him to record any decisions he may have made during the client identification procedures.
- G. Decision-maker identifies the domains of concern to him for purposes of his decision-making.
1. Identifier obtains decision-maker's current concept of the domain which is of concern to the decision-maker for purposes of his decision-making.
 - a. Identifier asks decision-maker to describe the service area(s) of concern to him: "What service area(s) do you make decisions about; and what service area(s) do you want to make decisions about?"
 - b. Identifier asks decision-maker, "For each service area you have described, is there a larger area of which it is a part? If so, describe the larger area."
 - c. Identifier asks decision-maker, "For each of the larger areas you have described, is there a still-larger area of which it is a part? If so, describe the still-larger area."
 - d. Identifier asks decision-maker to provide a term of designation for each area described in sub-steps 1-3.
 - e. Identifier draws for decision-maker review and approval a Venn diagram depicting the areas, using the names given in sub-step 4. (see Figure
 - f. Identifier asks decision-maker to consider for each service area ("X") and for each related larger area ("Y") the following question: "Is there any component of Z that is not X and not Y and about which you make decisions or want to make decisions? If so, repeat sub-steps b. through f. for that component."
 - g. Identifier asks decision-maker, "Is there any component of Y that is not X and about which you make decisions or want to make decisions? If so, repeat steps 2-7 for that component."

IV. G. 1. (Continued)

- h. Identifier asks decision-maker to identify all service areas about which he (the decision-maker) desires client demand data.
2. Identifier applies tests of completeness, asking the decision-maker to modify his concept of the domain(s) of concern to him, if he wishes to do so.
- a. Identifier shows decision-maker some descriptions of service areas as identified by other persons (such as clients, other decision-makers, and decision-makers in other enterprises).
 - b. Identifier asks decision-maker to review the client list produced by step IV. F. and to match the items on that list with the service area(s) identified thus far in step IV. G.
 - (1) Decision-maker reviews client list and matches items to the identified service area(s), including multiple matches, if appropriate.
 - (2) Decision-maker considers results of matching:
 - (a) If there is a complete match and the decision-maker thinks of no other clients or service areas, then proceed to sub-step 2. c.
 - (b) If there is a client for which there is not a matching service area, then is there a service area missing, is there a mis-defined service area, or is the client really not a client of concern to the decision-maker?
 - (c) If there is a service area for which there is not a matching client, then is there a client missing or is the service area really not of concern to the decision-maker?
 - (d) If the decision-maker thinks of additional clients, service areas, or thinks of revised definitions, then does he want to make changes accordingly?

IV. G. 2. b. (Continued)

- (3) Decision-maker considers revising priority order of list, if changes to the list are made during the preceding sub-step b.
- c. Identifier asks decision-maker to think of other service areas that are parts of Y (see sub-steps IV. G. 1. f. and g. for the referent of "Y") and to seriously consider the implications of those parts not being identified by him as areas about which he wants client demand data.
3. For each domain, identifier asks decision-maker to state the one (or more) time-frame, if any, that he wants client demand data about. For example, the decision-maker may want to know present client demands for one domain over the next 5 years, but for another domain only for the next 6 months; or he may have no time-frame in mind at all.
4. Each time-frame of each domain constitutes a separate concern for purposes of the methodology, so the identifier lists them as if they were individual domains.
5. When there are more than one domain (and/or more than one time-frame), decision-maker prioritizes them.
 - a. Identifier asks decision-maker to number the domains in priority order in terms of the importance to him of having client demand data about them during the period of the service agreement.

Note: Decision-maker should be told to stop when he has ranked all the domains for which he wants client demand data during the period of the service agreement.
 - b. Identifier tests the completeness of the prioritization, asking decision-maker to make any changes in rank that he chooses to make.
 - (1) Decision-maker reviews prioritization of the same domains by one or more other persons whose perspective he respects but which may be different from his own.
 - (2) Identifier asks decision-maker to seriously consider any implications for priority ordering

IV. G. 5. b. (2). (Continued)

the domains that may be suggested by the following criteria:

- Sequence in which decision-maker wants to make decisions about different domains.
 - Program development priorities.
 - Level of controversy about what services should be provided.
 - Practicability of making any service changes within a given time-frame.
6. Identifier furnishes decision-maker with a neat copy of the prioritization, asking him to make any final changes and approve it.
 7. Identifier reminds decision-maker of the decision log and the importance of recording decisions he makes at any time.
- H. Decision-maker combines his concerns for clients and domains.
1. Identifier explains that the two prioritized lists (one of clients and one of domains) must be combined in the form, "a client's demands about a domain," in order to provide direction to the identifier for conducting the C.D.I. study.
 2. Identifier asks decision-maker to review his previous matching of clients and domains and to make any changes that are implied by any subsequent changes in the client list or domain list.
 3. Identifier asks decision-maker to prioritize the matched pairs of clients and domains in terms of importance to him of being provided with data with respect to each combination during the period of the service agreement.
 4. Identifier asks decision-maker to allocate "100% of importance" among the prioritized combinations.
 5. If decision-maker asks for assistance in allocating "100% of importance" among the combinations, identifier applies the allocation procedure specified in step II. F. 5.

IV. H. (Continued)

6. Identifier examines the allocation and describes any implications for C.D.I. work which suggest that the decision-maker should reconsider the allocation.
7. Identifier asks decision-maker to make any final changes in the combinations, priorities and weights and to approve the list.
8. Identifier examines domain descriptions in order to determine whether there are any conceivable problems for communicating the domain to the clients whose demands will be sought.
9. If identifier believes changes in the domain names or descriptions may be needed, he prepares a written statement incorporating the changes and asks the decision-maker to review and modify or approve the statement(s).
10. Identifier briefly explains to the decision-maker the nature and purposes of steps V, VI and VII, asking the decision-maker to make any comments or raise any questions he may have.
11. If no comments are made or questions raised which require identifier's response, identifier goes to step III to determine the next activity to be implemented.
12. Identifier responds to the decision-maker's comments or questions in the context of the methodology.

V. Client identifies his demands with respect to a domain.

- A. Given the Design Resource Allocation Chart (DRAC) and the Client Schedule Chart (CSC), identifier allocates the resources available for step V to the activities of the step and plans to complete the step within those resources.

Note: A Client Schedule Chart (CSC) is comparable in structure to a Design Schedule Chart (DSC) but procedures have not been specified in step III. F. for creating the Client Schedule Chart.

1. Identifier constructs a blank Identification Resource Allocation Chart (IRAC) as shown in Figure 8.
2. Given the first (next) scheduled client-domain combination (see step III), identifier determines which sub-set

Figure 8. IDENTIFICATION RESOURCE ALLOCATION CHART (IRAC)

For ____-Priority Client _____ (name)

of Concern to Decision-maker _____ (name)

Total Resources Allocated to This Step from DRAC	
Allocation to Step V. A.	
Allocation to Step V. ____. (Fill in remainder of form with sub-steps of V. B. or V. C. or V. D., depending on whether Case I, Case II, or Case III is being implemented)	
-----	-----
-----	-----
-----	-----

V. A. 2. (Continued)

of procedures are to be implemented.

- a. If the client is an individual, identifier plans to implement step V. B. (Case I).
 - b. If the client is a group of persons that number less than 11, identifier plans to implement step V. C. (Case II).
 - c. If the client is a group of persons that number more than 10, identifier plans to implement step V. D. (Case III).
3. Identifier allocates on the IRAC the resources available for step V activities.

Note: Only those activities should be scheduled that can be accomplished within the available resources. For example, if resources are minimal, then most tests of completeness may need to be eliminated; and where the clients are numerous, small samples may be required.

B. (Case I) Individual client identifies his demands.

1. Identifier arranges a meeting with the client.
2. Identifier briefly explains the nature and purpose of C.D.I. methodology and of this particular study and he tells the client the name or position of the decision-maker.
3. Identifier asks client to feel free to ask any questions, make any comments or raise any objections he thinks of at any time during the process.
4. Identifier provides the client with the decision-maker's definition of the domain (including the time-frame, if any).
5. Identifier asks the client, in the context of the particular domain, to "imagine (the domain) as you really want it to be. What are the things you see happening?" Identifier asks the client to write down those things or tell them to the identifier.

V. B. 5. (Continued)

Note: Although having the client write the things down is preferable ordinarily, circumstances may suggest having the client tell orally what is happening--in which case, the identifier takes notes and/or tape-records what the client says.

6. Identifier analyzes the client's response into unitary demand statements.
 - a. Identifier separates the client's response into a list of unitary demand statements, i.e., into single demands, with one demand statement per line.
 - b. Identifier asks the client to modify or confirm the demand statements as analyzed.
7. Identifier tests the completeness of the client's demand list, asking him to modify the list if the tests "suggest to you any things that are also part of what you really want (the domain) to be."
 - a. Identifier explains that tests of completeness provide additional perspectives that can suggest things that a client wants but which he may not have thought of in developing the first list.
 - b. Identifier furnishes client with other peoples' demand statements, and records any changes that the client wants to make in his list.
 - (1) If identifier has already obtained some demand statements from other persons, he furnishes those, or
 - (2) Identifier asks client to name at least one other person whose perspective he respects but which probably is different from his own and from whom some demand statements can be obtained; identifier then obtains the other persons' lists using steps V. 3-6, and asks the client to review the responses.
 - (3) Identifier asks client to think of any things that are "wrong" with the domain as it now exists and to see whether his demand list provides for correcting those things.

V. B. 7. b. (Continued)

- (4) Identifier asks client to think of any things that are "right" about the domain as it now exists and to see whether his demand list provides for continuing those things.
8. Identifier asks the client to modify or confirm the list of demand statements.
9. Client prioritizes his demands.
 - a. Identifier explains that priority ordering of the demands is important for carrying out the next steps of the C.D.I. study.
 - b. Identifier asks client to put the demands into priority order in which the demand he most wants to happen (or to continue happening) is number 1, the demand he next most wants to happen (or to continue happening) is number 2, and so on, until he has prioritized all the demands.
 - c. Identifier asks the client to allocate "100% of importance" among all the prioritized demands.
 - d. If client asks for assistance in allocating "100% of importance" among the demands, identifier applies the allocation procedure specified in step II. F. 5.
 - e. Identifier furnishes the client with a neat copy of the prioritized list of demands, asking him to modify the statements, priority order or weighting if he chooses and to approve the list for reporting to the decision-maker.
10. Identifier tests the demand statements for direct observability, i.e., for whether the demands are stated in terms of directly observable behaviors or states.
 - a. Identifier asks client two questions about the first (next) demand statement.
 - (1) Identifier asks, "If you sent someone else somewhere to see whether this demand was actually being met, do you think he would come back with exactly the same information that you would if you went, yourself?"

V. B. 10. a. (Continued)

- (2) Identifier asks the client the same question only substituting the decision-maker's name or title in place of the identifier's.
 - b. If there is no item, identifier goes to step III to determine the next activity to be implemented.
 - c. If the client answers "Yes" to both questions, then the identifier marks the demand statement for reporting to the decision-maker in step VII.
 - d. Identifier goes to step V. B. 10. a.
- C. (Case II) Identifier obtains demand statements of a client who is a group of persons that number less than 11.
1. Identifier arranges a single meeting of all the clients, if possible; otherwise, he arranges the fewest possible number of meetings.
 2. Identifier briefly explains the nature and purpose of C.D.I. methodology and of this particular study, and he tells the clients the name or position of the decision-maker.
 3. Identifier asks the participants to feel free to ask questions or to comment on the process at any time.
 4. Identifier provides the clients with the decision-maker's definition of the domain (including the time-frame, if any).
 5. Identifier asks clients to respond to the following stimulus: "Imagine (the domain) as you really want it to be; what are the things you see? Write those things down."
 6. After a few minutes, identifier says, "Try to imagine everything that is part of (the domain) as you really want it to be--everything that is happening or that exists as you imagine (the domain) meeting the demands, needs or wants that you have for it."
 7. After a few minutes, identifier tests the completeness of the clients' responses.

V. C. 7. (Continued)

- a. Identifier asks clients, "Now, I want you to think of any of (the domain) that exists today, and note any things that you believe are 'wrong.' Then look at what you have already written and see if you have provided for correcting those things. If not, consider saying something about correcting them."
 - b. Identifier asks clients, "Again, think of (the domain) as it now exists and note any things that are 'right.' Then look at what you wrote and see if you provided for continuing them. If not, and if they are part of what you want (the domain) to be, say something about continuing them."
8. Identifier collects the responses and tells the clients that his next task is to assemble what they have written into a survey instrument so that they all may have the opportunity of seriously considering everyone's statements.
 9. Identifier analyzes the responses into a list of unitary demand statements, i.e., into single demands, with one demand statement per line; and he eliminates exact duplicates. Where more than one wording seems possible, identifier writes each alternative possibility.
 10. Using the unitary demand statements, identifier produces a survey instrument in the form below:
 - _____ 1. [Demand Statement]
 - _____ 2. [Demand Statement]
 - _____ 3. [Demand Statement]

Identifier adds the title "Client Demand Survey for (Name or Title of the Decision-maker)," provides the decision-maker's written domain definition and the following instructions:

"Imagine (the domain) as you really want it to be. Read each item in the list that follows. If the item is part of what you really want (the domain) to be, place a check-mark in the space to the left of the item. After completing the above, go back over the list and circle the numbers of the five most important items you checked. Note: You may perceive that some of the items are redundant. Do not

V. C. 10. (Continued)

be upset by this. They are not stated in exactly the same words, and they are there so you can make fine distinctions should you care to do so. However, if you do perceive that two or more items mean the same thing, then you should treat them alike-- either checking them or leaving them blank in accordance with the basic instructions above."

11. Identifier arranges for the clients to respond to the survey instrument.
 12. Identifier tabulates the results.
 - a. For each item on the survey instrument, identifier counts the number of check-marks and the number of circles.
 - b. For each item, identifier computes a total which equals the number of check-marks plus ten times the number of circles.
 13. Identifier tests for observability.
 - a. For the item that has the highest (next highest) computed total, identifier tests whether the item is stated as a directly observable behavior or state.
 - b. If there is no item, identifier goes to step III to determine the next activity to be implemented.
 - c. If the item is a directly observable behavior or state, identifier marks it for reporting to decision-maker in step VII.
 - d. Identifier goes to step V. C. 13. a.
- D. (Case III) Identifier obtains demand statements of a client who is a group of persons that number more than 10.
1. Identifier determines whether sampling is necessary.
 2. If sampling is not necessary, identifier goes to step V. D. 4.

V. D. (Continued)

3. Identifier determines a sample size according to the following chart:

<u>size of total client group</u>	<u>sample size</u>
11 - 20	8
21 - 50	15
51 - 100	20
101 - 200	25
200 - 400	30
400 - 800	35
over 800	40 plus 2% of no. over 800

4. Identifier arranges the fewest number of meetings that are necessary to have the participation of each member of the sample.
- Using a table of random numbers, identifier assigns a sequence for contacting the client population.
 - According to the random sequence, identifier contacts the client population individually and arranges the fewest number of meetings necessary for participation of each person who is available, until the sample size is reached.
5. At the meeting with the first (next) sample member(s), identifier briefly explains the nature and purpose of C.D.I. methodology and of this particular study, and he tells the clients the name or position of the decision-maker.
6. Identifier asks clients to feel free to make comments or raise questions or objections at any time during the process.
7. Identifier provides the clients with the decision-maker's definition of the domain (including time-frame, if any).
8. Identifier asks clients to respond to the following stimulus: "Imagine (the domain) as you really want it to be; what are the things you see? Write those things down."

V. D. (Continued)

9. After a few minutes, identifier says, "Try to imagine everything that is part of (the domain) as you really want it to be--everything that you see happening or existing as you imagine (the domain) meeting the demands, needs or wants that you have for it."
10. After a few minutes, identifier tests the completeness of the clients' responses.
 - a. Identifier asks clients, "Now, I want you to think of any of (the domain) that exists today, and note any things that you believe are 'wrong.' Then look at what you have already written and see if you have provided for correcting those things. If not, consider saying something about correcting them."
 - b. Identifier asks clients, "Again, think of (the domain) as it now exists and note any things that are 'right.' Then look at what you wrote and see if you provided for continuing them. If not, and if they are part of what you want (the domain) to be, say something about continuing them."
11. Identifier collects the responses and tells the clients that his next task is to assemble what they have written into a survey instrument so that they all may have the opportunity of seriously considering everyone's statements.
12. Identifier analyzes the responses into a list of unitary demand statements, i.e., into single demands, with one demand statement per line; and he eliminates exact duplicates. Where more than one wording seems possible, identifier writes each alternative possibility.
13. Identifier counts the number of items and determines the number of survey instruments to be produced according to the appropriate cell of the following chart:

	1-50	51-100	101-200	over 200
11 - 20	1	1	1	1
21 - 50	1	1	1	2
50 -100	1	2	2	3-4

V. D. (Continued)

14. If more than 1 survey instrument is to be used, identifier determines the average instrument size and randomly assigns items to each instrument in turn until all items have been assigned.
15. Using the unitary demand statements, identifier produces a survey instrument in the form below:
 - _____ 1. [Demand Statement]
 - _____ 2. [Demand Statement]
 - _____ 3. [Demand Statement]

Identifier adds the title "Client Demand Survey for (Name or Title of the Decision-maker)," provides the decision-maker's written domain definition and the following instructions:

"Imagine (the domain) as you really want it to be. Read each item in the list that follows. If the item is part of what you really want (the domain) to be, place a check-mark in the space to the left of the item. After completing the above, go back over the list and circle the numbers of the five most important items you checked. Note: You may perceive that some of the items are redundant. Do not be upset by this. They are not stated in exactly the same words, and they are there so you can make fine distinctions should you care to do so. However, if you do perceive that two or more items mean the same thing, then you should treat them alike--either checking them or leaving them blank in accordance with the basic instructions above."

16. Identifier determines average size of the sample groups (total client group divided by number of survey instruments), randomly assigns clients to each group, and randomly assigns one instrument to each group; he then arranges for the clients to respond as individuals to the one instrument assigned to them.
17. Identifier tabulates the results.
 - a. For each item on the survey instrument, identifier counts the number of check-marks and the number of circles.

V. D. 17. (Continued)

- b. For each item, identifier computes a total which equals the number of check-marks plus ten times the number of circles.

18. Identifier tests for observability.

- a. For the item that has the highest (next highest) computed total, identifier tests whether the item is stated as a directly observable behavior or state.
- b. If there is no item, identifier goes to step III to determine the next activity to be implemented.
- c. If the item is a directly observable behavior or state, identifier marks it for reporting to decision-maker in step VII.
- d. Identifier goes to step V. D. 18. a.

VI. Client(s) operationalizes his (their) demands.

- A. Given the Design Resource Allocation Chart (DRAC) and the Client Schedule Chart (CSC), identifier allocates the resources that are available for step VI to the activities of the step and plans to complete the step within those resources.

Note: A Client Schedule Chart (CSC) is comparable in structure to a Design Schedule Chart (DSC) but procedures have not yet been specified in step III. F. for creating the Client Schedule Chart.

1. Identifier constructs a blank Operationalization Resource Allocation Chart (ORAC) as shown in Figure 9.
2. Given the first (next) demand statement that is to be operationalized, identifier determines the sub-set of procedures to be used.
 - a. If the client is an individual, identifier plans to use step VI. B. (Case I).
 - b. If the client is a group that numbers less than 11, identifier plans to use step VI. C. (Case II).
 - c. If the client is a group that numbers more than 10, identifier plans to use step VI. D. (Case III).

Figure 9. OPERATIONALIZATION RESOURCE ALLOCATION CHART (ORAC)

For ____-Priority Demand Statement: _____
 of Client _____ (name) _____ of concern to
 Decision-maker _____ (name) _____

Total Resources Allocated to This Step from DRAC	
Allocation to Step VI. A.	
Allocation to Step VI. ____. [Fill in remainder of form with steps corresponding to the Case (I, II or III) to be implemented]	
<hr style="border-top: 1px dashed black;"/>	
<hr style="border-top: 1px dashed black;"/>	

VI. A. (Continued)

3. From the DRAC, identifier allocates on the DRAC the resources that are available for these activities.
4. According to his plans, identifier goes to step VI. B., C., or D.

B. Individual client operationalizes his demand.

1. Identifier develops the initial operationalization stimuli.
 - a. Identifier develops a hypothetical situation that is appropriate to the decision-maker's purpose of obtaining the client's specific meaning for the demand in the context of the particular domain.
 - b. Identifier inserts the demand into the hypothetical situation.
 - c. Identifier determines how the client should observe the hypothetical situation.
 - d. Identifier writes a stimulus which combines the elements from VI. B. 1. a. through c.

Note: Here is an example of a stimulus for a graduate student where the decision-maker is the student's major advisor and where one of the student's demands is "to clarify my own ideas about future plans":

"Imagine the advisement process as you really want it to be, and in that process 'clarifying your own ideas about future plans' is taking place. It's happening as fully as you really want. Observe that situation carefully, and write down everything you see that tells you that 'clarifying your own ideas about future plans' is fully happening."

- e. Identifier shows the stimulus to the decision-maker, explaining the nature and purpose of an operationalization stimulus.
- f. Identifier obtains decision-maker's approval of the stimulus.

VI. B. 1. (Continued)

- g. Identifier writes a stimulus in which the demand is absent.

Note: Here is an example of the second stimulus:

"Now, imagine the advisement process again as you really want it to be, only in that process there is no 'clarifying of your own ideas about future plans' occurring at all. It's not happening. Observe that situation carefully, and write down everything you see that tells you that 'clarifying your own ideas about future plans' is not happening at all."

2. Identifier arranges for the client to respond to the two stimuli.
3. Identifier tests the completeness of the client's responses.
 - a. Identifier provides the client with at least one other person's responses to the two stimuli, asking the client to examine them and to make any changes in his own responses that the other person's responses may suggest to him.
 - b. Identifier asks the client to re-examine in his mind his original two hypothetical situations and to seriously re-consider the things he observed but didn't write down before; if any of those things are part of what he means by the demand or by its absence, he should add them to what he has written.
 - c. Identifier asks the client to think of things that have nothing to do with his demand and to seriously consider whether or not they do; if he thinks of anything that is, in fact, part of what he means by the demand, he should write down those things, too.
4. Identifier asks the client to write the positive ends of the negative poles which the client expressed in response to the second hypothetical situation.

VI. B. (Continued)

5. Identifier analyzes the client's responses into a list of unitary dimensions (items) with one item per line and he eliminates any exact duplicates.
6. Identifier asks the client to review the list, make any changes he wants to in it, and approve it.
7. Identifier asks the client to prioritize the items in terms of the importance of having them happen. The most important one to have happen is assigned the number 1, the next most important is assigned the number 2, and so on.
8. Identifier tests of observability.
 - a. Identifier asks the client, for each item on the list, "Is this item a directly observable behavior or state?"

Note: If the client asks for an explanation of the question, identifier gives the client an alternative question:

"If you sent someone else somewhere to see whether this item was actually happening, do you think the person would come back with exactly the same information that you would if you went, yourself?"
 - b. Identifier asks the client to place a check-mark beside each item that he believes is a directly observable behavior or state.
 - c. Identifier sets aside any check-marked items for reporting to the decision-maker in step VII.
9. For the most important (next most important) item that is not a directly observable behavior or state, identifier goes to step VI. B. 1. (and following), substituting the term, "demand," for the term, "domain;" the term, "item," for the term, "demand;" and the term, "sub-item," for the term, "item."
10. If there is no item, identifier goes to step III. to determine the next activity to be implemented.

VI. (Continued)

- C. Clients who are a group numbering less than 11 operationalize a demand.
1. Identifier develops the initial operationalization stimulus (see step VI. B. 1. a. through f.)
 2. Identifier arranges for the clients to respond to the stimulus.
 3. Identifier tests the completeness of the responses to the stimulus.
 4. Identifier analyzes the clients' responses into a list of unitary dimensions (items) with one item per line and he eliminates any exact duplicates.
 5. Identifier produces a survey instrument.
 6. Identifier arranges for each client to respond to the survey instrument.
 7. Identifier tabulates the results.
 8. Identifier identifies the first (next) item to be further operationalized.
 9. If there is no item, identifier goes to step III. to determine the next activity to be implemented.
 10. Identifier goes to step VI. C. 1. (and following) for the item, substituting in those procedures the term, "sub-item," for the term, "item."
- D. Clients who are a group numbering more than 10 operationalize a demand.
1. Identifier develops the initial operationalization stimulus (see steps VI. B. 1. a. through f.).
 2. Identifier determines the sample size of clients to be used.
 3. Identifier arranges for each member of the sample to respond to the stimulus.
 4. Identifier tests the completeness of each sample member's responses.

VI. D. (Continued)

5. Identifier analyzes the responses into a list of items.
6. Identifier tests each item for direct observability.
7. For each item that is not directly observable, identifier cycles through steps 1 through 6, substituting in those procedures the term, "sub-item," for the term, "item."
8. Identifier determines the sample size of clients to be used.
9. Identifier produces a survey instrument.
10. Identifier arranges for each member of the sample to respond to the survey instrument.
11. Identifier tabulates the results.
12. Identifier goes to step III to determine the next activity to be implemented.

VII. Identifier reports client demand data to the decision-maker.

- A. Given the Design Resource Allocation Chart (DRAC) and the Design Schedule Chart (DSC), identifier allocates the resources that are available for step VII to the activities of the step and plans to complete the step within those resources.
 1. Identifier constructs a blank Reporting Resource Allocation Chart (RRAC) as shown in Figure 10.
 2. From the DRAC, identifier allocates on the RRAC the resources that are available for these activities.
 3. Identifier plans a schedule for implementing the activities.
- B. For each decision-maker to whom a report is to be made, identifier organizes the results of previous steps as follows:
 1. The domain-client combinations according to decision-maker's priorities.
 2. For each domain-client combination, the demands according to client's priorities.

Figure 10. REPORTING RESOURCE ALLOCATION CHART (RRAC)

For Reporting to Decision-maker _____ (name) _____

Concerning the Following Clients and Domains:

Total Resources Allocated to This Step from DRAC	
Allocation to Step VII. A.	
Allocation to Step VII. B.	
Allocation to Step VII. C.	
Allocation to Step VII. D.	

VII. B. (Continued)

3. For each demand, the dimensions according to client's priorities.
 4. For each dimension, the sub-dimensions according to client's priorities.
- C. Identifier writes the report.
1. Identifier describes the methods used.
 2. Identifier presents the organized material along with decision-maker's definition of each domain for which some data are reported.
 3. Identifier identifies and discusses limitations of the data.
- D. Identifier delivers the report to the decision-maker.

VIII. Identifier evaluates each design.

- A. Given the Design Resource Allocation Chart (DRAC) and the Design Schedule Chart (CSC), identifier allocates the resources that are available for step VIII. to the activities of the step and plans to complete the step within those resources.
1. Identifier constructs a blank Evaluation Resource Allocation Chart (ERAC) as shown in Figure 11.
 2. From the DRAC, identifier allocates on the ERAC the resources that are available for these activities.
 3. Identifier plans a schedule for implementing the activities.
- B. Identifier determines the extent to which the data are used for decision-making.
1. Decision-maker identifies the decisions he has made with respect to each domain of concern and the data of any kind used to make those decisions.
 - a. Identifier asks the decision-maker for his log of decisions and data.

Figure 11. EVALUATION RESOURCE ALLOCATION CHART (ERAC)

Evaluation of Design for Decision-maker _____ (name)

Total Resources Allocated to This Step from DRAC	
Allocation to Step VIII. A.	
Allocation to Step VIII. B. 1.	
Allocation to Step VIII. B. 2.	
Allocation to Step VIII. B. 3.	
Allocation to Step VIII. B. 4.	

VIII. B. 1. (Continued)

- b. If the decision-maker does not have a log of decisions and data, identifier asks decision-maker to recall his decisions and data used and to provide identifier with a list of this information.
- c. Identifier tests the completeness of the list of decisions and data.
 - (1) Identifier provides the decision-maker with other persons' lists of decisions they think he has made in the domain and of data they think he has used with respect to each decision.
 - (2) Identifier provides the decision-maker with records of the enterprise, designated by the decision-maker, that may indicate decisions he has made and data he has used.
 - (3) Identifier asks the decision-maker to review the reported C.D.I. data, noting which data he used and for each datum used asking himself, "What decision(s) did I make with this datum?"
 - (4) Identifier asks the decision-maker to consider the test of completeness material and to modify his list if the materials suggest changes to him.
 - (5) Identifier asks the decision-maker to approve the list, making any final corrections he observes to be necessary.
- 2. Identifier determines incompleteness of the C.D.I. design.
 - a. Identifier identifies unmet needs for C.D.I. data according to the decision-maker.
 - (1) Identifier analyzes the list to determine the number of decisions for which C.D.I. data were used and the number of decisions for which C.D.I. data were not used.
 - (2) For each decision for which C.D.I. data were not used, identifier asks the decision-maker whether he wanted to use any C.D.I. data; if he says he did want to use C.D.I. data, place an "X" beside the decision.

VIII. B. 2. a. (Continued)

- (3) Identifier counts and records the number of decisions for which the decision-maker did not use C.D.I. data but wanted to.
- b. Identifier calculates the percentage of incompleteness.
 - (1) Identifier sums the number of decisions for which C.D.I. data were used [from a. (1)] and the number of decisions for which the decision-maker did not use C.D.I. data but wanted to [from a. (3)].
 - (2) Identifier divides the number of decisions for which the decision-maker did not use C.D.I. data but wanted to [from a. (3)] by the sum from b. (1); he then multiplies the result by 100% to produce the percentage of incompleteness.
3. Identifier determines lack of focus of the C.D.I. design.
 - a. Identifier identifies the decision-maker's priorities for his decisions by asking him to place in order of importance all the decisions for which he used C.D.I. data [from 2. a. (1)] together with all decisions for which he did not use C.D.I. data but wanted to [from 2. a. (2) , as designated by "X's"].
 - b. Identifier tests the completeness of the prioritization.
 - (1) Identifier provides the decision-maker with another prioritization obtained from a person designated by the decision-maker.
 - (2) Identifier asks the decision-maker to consider the test of completeness material and to modify his prioritization if the material suggests any changes to him.
 - (3) Identifier asks the decision-maker to approve the final prioritization, making any final corrections he observes to be necessary.
 - c. Identifier completes the following matrix, where \underline{i} = the percentage of incompleteness from 2. b. (2),

VIII. B. 3. c. (Continued)

with the number of decisions appropriate for each cell:

	C.D.I. Data Used	C.D.I. Data Not Used
For the most important 100% minus \underline{i} decisions		
For the least important \underline{i} decisions		

- (1) Identifier multiplies the number of decisions on the prioritized list by the percentage of incompleteness, \underline{i} ; the resulting number defines the size of the group of least important decisions for purposes of completing the matrix.
- (2) For the group of least important decisions, the identifier counts the number of them for which C.D.I. data were used, and enters that number in the lower left cell.
- (3) For the remaining decisions of the prioritized list (i.e., the most important decisions), identifier counts the number of them for which C.D.I. data were used, and enters that number in the upper left cell.
- (4) Identifier fills the lower right cell and the upper right cell with the remainders from (2) and (3), respectively.
- (5) Identifier notes the lower left and upper right cells; they constitute the error of focus.
- (6) Identifier adds the numbers from the lower left and upper right cells, and divides this sum by the total number of decisions on the prioritized list; he then multiplies by 100% to produce the percentage of lack of focus.

VIII. B. (Continued)

4. Identifier calculates the percentage of inefficiency of the C.D.I. design.
 - a. Identifier counts the data provided to the decision-maker, where a datum is defined as any dimension of any demand, including a demand statement itself, with respect to any combination of client and domain reported to the decision-maker.
 - b. Identifier counts the data which the decision-maker has listed as C.D.I. data which he used in making his decisions, where a datum is defined as any unit of data which the decision-maker identifies as C.D.I. datum.
 - c. Identifier cross-checks the data source used by the identifier in a. by locating in it each datum identified by the decision-maker as a datum he used.
 - (1) If the decision-maker's identified datum is located in the data source used for a., identifier records that correspondence by tally.
 - (2) If the decision-maker's identified datum is not located in the data sources used for a., identifier records that fact by separate tally, and marks the decision-maker's identified datum with asterisk (*).

Note: The decision-maker's assistance may be essential for performing this set of sub-steps because the correspondence may not be obvious to the identifier.

- (3) For each datum marked by an asterisk (*), identifier determines whether it is a C.D.I. datum provided by the C.D.I. design as defined by the identifier.
 - (a) If "yes," identifier adds it both to the count from 4. a. and to the tally from 4. c. (1).
 - (b) If "no," identifier doesn't do anything with it.

VIII. B. 4. (Continued)

- d. Identifier divides the tally total from c. (1) [as perhaps modified in c. (3)] by the count from a. [also as perhaps modified in c. (3)]; he then multiplies the result by 100% to produce the percentage of efficiency, and subtracts that percentage from 100 to obtain the percentage of inefficiency.

IX. Identifier redesigns, as necessary

(Sub-steps for step IX have not been developed for Draft II.)

#

REFERENCES

- Benedict, Larry G. (1972), "The Goals Process in Educational Evaluation Methodology." Processed. Amherst, Massachusetts: Center for Educational Research, University of Massachusetts.
- _____ (1973), "The Fortune/Hutchinson Evaluation Methodology: A Decision Oriented Approach." A paper presented at the 1973 Annual Meeting of the American Educational Research Association, New Orleans, February 26.
- Coffing, Richard T. (1971), "Identification of Client Demand for Public Services: Development of a Methodology." Processed. Amherst, Massachusetts: Center for Leadership and Administration, University of Massachusetts.
- _____ (1972), "Identifying Non-market Client Demands for Services: Methodology at a Point in Time." A paper presented at the 1973 Annual Meeting of the American Educational Research Association, New Orleans, February 26.
- _____ and Thomas E. Hutchinson (1972), "The Coffing-Hutchinson Needs Analysis Methodology--Draft I." Processed. Amherst, Massachusetts: Center for Educational Research, University of Massachusetts.
- _____, Thomas E. Hutchinson, James B. Thomann and Richard G. Allan (1971), "Self-instructional Module for Learning the Hutchinson Method of Operationalizing a Goal or Intent." Processed. Amherst, Massachusetts: Center for Educational Research, University of Massachusetts.
- Cooper, James M. and Milton Ojala (1970), eds., A Feasibility Study on the Model Elementary Teacher Education Program (Phase II), Final Report, Contract No. OEC-0-9-310417-4040(010). Washington, D. C.: U.S. Government Printing Office.
- Cyphert, Frederick R. and Walter L. Gant (1970), "The Delphi Technique: A Tool for Collecting Opinions in Teacher Education," *Journal of Teacher Education*, XXI: 3, 417-425.
- Green, Paul E. and Ronald E. Frank (1967), A Manager's Guide to Marketing Research: Some Recent Developments. New York: John Wiley and Sons, Inc.
- Hall, Arthur D. (1962), A Methodology for Systems Engineering. Princeton, New Jersey: D. Van Nostrand Company, Inc.

- Hamilton, Alexander or James Madison (n.d.), "The Federalist No. 52," in The Federalist. New York: The Modern Library.
- Hodson, William Alan, Richard T. Coffing and Thomas E. Hutchinson (1972), "The General Welfare Methodology--Draft II." Amherst, Massachusetts: Center for Educational Research, University of Massachusetts.
- _____, Thomas E. Hutchinson, James B. Thomann, and Richard T. Coffing (1973), "The Measuring Process as Prepared for Needs Analysis Sub-methodology for Education of the Handicapped." North Haven, Connecticut: Area Cooperative Educational Services.
- Hutchinson, Thomas E. (1972a), "Some Overlooked Implications of the Purpose: To Provide Data for Decision-making." A paper presented at the 1972 Annual Meeting of the American Educational Research Association, Chicago, April 5.
- _____(1972b), "The Design of Observational Techniques--Draft I: As Used in the Fortune/Hutchinson Evaluation Methodology." Processed. Amherst, Massachusetts: Center for Educational Research, University of Massachusetts.
- _____(1972c), "The Reporting Process--Draft I: As Used in the Fortune/Hutchinson Evaluation Methodology." Processed. Amherst, Massachusetts: Center for Educational Research, University of Massachusetts.
- _____ and Larry G. Benedict (1970), "The Operationalization of Fuzzy Concepts." Processed. Amherst, Massachusetts: Center for Educational Research, University of Massachusetts.
- Jones, Leon (1971), "The Operationalization of Educational Objectives for the Evaluation of an On-going Program." Unpublished dissertation, University of Massachusetts.
- Kotler, Philip (1972), "A Marketing Orientation for Government Agencies." Processed. Evanston, Illinois: Graduate School of Management, Northwestern University.
- Ostrom, Vincent and Elinor Ostrom (1971), "Public Choice: A Different Approach to the Study of Public Administration," Public Administration Review, 31, 203-216.
- Schneier, Edward (1970), "The Intelligence of Congress: Information and Public Policy Patterns," The Annals of the American Academy of Political and Science, 388, 14-24.

- Schreier, Fred T., Modern Marketing Research: A Behavioral Science Approach. Belmont, California: Wadsworth Publishing Company, Inc.
- Soysal, Mumtaz (1966), Public Relations in Administration: II. The Influence of the Public on the Operation of Public Administration, Excluding Electoral Rights. Brussels: International Institute of Administrative Sciences.
- Thomann, James (1973), "Meta-methodology: An Overview of What It Is and How It Was Developed." A paper presented at the 1973 Annual Meeting of the American Educational Research Association, New Orleans, February 26.
- Tonigan, Richard (1972), "A Charrette Can Help Reduce Planning Time," School Management, April 1972, 12-13.
- Umpleby, Stuart (1970), "Citizen Sampling Simulations: A Method for Involving the Public in Social Planning," Policy Sciences I (1970), 361-375.
- Weaver, W. Timothy (1971), "The Delphi Forecasting Method," Phi Delta Kappan, LII: 5, 267-271.
- Wheaton, William L. C. and Margaret F. Wheaton (1970), "Identifying the Public Interest: Values and Goals," in Urban Planning in Transition, edited by Ernest Erber. New York: Grossman Publishers. 152-164.
- White, Leonard D. (1955), Introduction to the Study of Public Administration. Fourth edition. New York: The Macmillan Company.
- Young, Stanley, and Richard T. Coffing (1971), "Organizational Programming and the University." A working paper for the President's Committee on the Future University of Massachusetts. Processed. Amherst, Massachusetts: University of Massachusetts.

