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The goals gap in education evaluation : identification and development of methodology.

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THE GOALS GAP IN EDUCATIONAL EVALUATION: IDENTIFICATION AND DEVELOPMENT OF METHODOLOGY

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This dissertation is dedicated to two very important individuals without whose continued help and inspiration this document would never have been completed and possibly never even begun.

To Susan

and

To Tom

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(March 1973)

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In the past decade, a new purpose for educational evaluation has been set forth: to provide data for decision making. The literature on educational evaluation documents the need for new methodologies of educational evaluation to meet this purpose. Specifically, educational evaluators write that existing procedures of evaluation are inadequate for the needs of educational decision makers. Methodologies need to be developed which focus on fulfilling their needs.

However, the literature also strongly points out that new methodologies are not being developed, that the field as a whole is lacking in evaluation methodology, in methodological development and in methodological research.

Professors Fortune and Hutchinson and others at the University of Massachusetts have undertaken such methodological development. The result has been the Fortune/Hutchinson Evaluation Methodology (F/H). F/H contains many elements, at various stages of development. This investigation has focused on the Goals Process in that methodology. The purpose of the Goals Process is to arrive at as close an approximation as possible of decision maker intents for his project or enterprise.

The focus of this investigation has been multiple: (1) to document the Goals Process, which prior to the investigation consisted primarily of class notes and a workshop outline; (2) to do methodological development and research on the Goals Process; (3) to identify and prioritize gaps existing within this Process; (4) to test the highest prioritized gap and (5) to develop procedures appropriate to filling that gap. (For purposes of this investigation a gap is defined as an interruption or break in continuity.)

The primary research procedure used to accomplish this multiple purpose was Metamethodology. Methodology is defined as a systematic, standardized, operationalized set of rules and procedures designed to accomplish a specific purpose. Metamethodology is a methodology to develop other methodologies.

This dissertation contains a description of the procedures used to accomplish each of the objectives set forth for this investigation and the results of the application of these procedures. As a result of this investigation, the Goals Process has been documented in a form easy to disseminate and to use to train evaluators. It has also been documented in a very detailed, lengthy form to be used by practitioners of evaluation desiring to learn the methodology on their own, or to be used by persons wishing to instruct or train others in the use of the Goals Process.

Gaps existing within the Goals Process have been identified. These gaps were of two kinds: minor and major. Minor gaps consisted of grammatical errors, incorrect phraseology, missing words, etc., and their primary function was to increase the clarity of the methodology. There-

fore, the suggestions made to fill these minor gaps were implemented and incorporated into the Goals Process methodology. The major gaps were ordered from most to least important. The initial function of this list was to focus the investigation on a specific point for field testing. Its future function is that it is to be used as a guideline for future research on the Goals Process.

One gap was subjected to a decision oriented field test. This gap is the goal analysis,procedures. The purpose of a goal analysis is to take a decision maker's statement of intent (arrived at in a previous step in the methodology) and reduce it to its component parts, or kernals of meaning.

As a result of the field test, it was found that existing procedures were somewhat unreliable in accomplishing their purpose. A Self-Instructional Module was therefore developed to increase the reliability of the application of the goal analysis procedures. This module is in a form easy to disseminate and to use to train others in the goal analysis procedures and appears as Appendix D.

Three other appendices are provided. The first is the documented Goals Process methodology, including the revisions made as a result of implementing minor gaps and field testing the goal analysis procedures. The other two contain the gaps in the methodology that remain to be investigated.

CHAPTER I

THE CURRENT STATE OF EDUCATIONAL EVALUATION METHODOLOGY

The 1960's saw the topic of educational evaluation develop from the rather simplistic and narrow notion of evaluation as testing to a much broader and larger content area within the still broader field of educational research. With the appearance in 1963 of Lee J. Cronbach's article, expanding the concept of evaluation, and even more so with the appearance in 1967 of the AERA Monograph Series on Curriculum Evaluation (Tyler, 1967), educational researchers have become suddenly and increasingly aware of the great void in educational evaluation methodology. This void is further brought home to the researchers by the increasing demands and requests that come across their desks from the field for evaluation skills in dealing with numerous funded projects, e.g., Title I, Title III and so on.

At first, this void was merely elaborated upon within a very limited group but with the continuing work of Cronbach (1963), Tyler (1967), Stake (1967a, 1969b) and Stufflebeam (1967, 1969); the appearance of the CIRCE at Illinois, Stufflebeam's Ohio State Evaluation Center and the UCLA Evaluation Center among others; and most recently with the joint efforts of Phi Delta Kappa and AERA in the form of one of the most definitive works to date on the subject (Stufflebeam, et al., 1971), the audience for these efforts has grown larger and larger. But, and perhaps more important, the shortcomings of the field of evaluation have become more and more obvious.

Despite the theoretical works of the above named group of outstanding

educators, there still exist few evaluation methodologists or methodoligies. That this is so can easily be found in the literature. A good overview is presented in the recently published PDK-AERA work (Stufflebeam, et al., 1971). The authors of that work outline eight symptoms of the field's "illness" as of the present, these running the gamut from an "avoidance reaction" in the field as a whole to the problems in defining the term "evaluation," to the "no-significant-differences" studies which abound.

However, to sum up the state of the art for this paper, we can conclude the following:

1. The area of educational evaluation theory and conceptualization is lacking.
2. Now more than ever there is a need for comprehensive evaluation procedures to be developed.
3. To date, this latter has not been done at a very rapid rate.

If we are ever to be held accountable in education for what we do; if we are ever going to competently and specifically relate the products of education to the process of education, then we must set about conceptualizing, developing, testing, applying and revising evaluation procedures. This does not mean to imply that we do not know a great deal about testing. Both Cronbach (1963) and Pace (1968) among many others point up the vast history of the testing movement. However, it is in the movement described above that educators realized that evaluation is more than just testing. Herein lies the need for evaluation methodologists: not to develop and test more tests, but to establish a comprehensive,

logical and sound theoretical framework (as Stake (1967a, 1969b), Scriven (1967, 1969), Glass (1969) and others have attempted to do and continue to do,) in order that methodological development and research might be done in the context of such a framework.

To date this methodological development and research has been lacking. Articles and addresses appear almost randomly in the journals and at the professional conventions, with no other referent(s) than other random articles and addresses. Those evaluation procedures which are developed are done so for the most part within the framework of psychometrics, a narrow conception which does not meet the needs outlined earlier. Those who have attempted to rise above the testing domain have proceeded both unsystematically and for the most part, descriptively.[1]

Finally, a cursory examination of the current state of the art should include some specifics as to where evaluation knowledge stands. We might begin by first asking: What do educators consider evaluation to be? Pace (1968) in addressing the participants of an AERA Pre-session said:

> The diversity of your interests, all thought of as evaluation, indicates that evaluation is a label which can be, and is, applied to a rather large assortment of activities-so many, in fact, that the term itself has almost lost all precision, and perhaps, much of its capacity to communicate between the speaker and listener (p. 1).

He then goes on to discuss some of the things called "evaluation": testing products; collecting data on the operations of an institution;

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[1]That this is true is evidenced by the many nonoperational "Models" of evaluation which have been advanced to date: the CIPP, Stake's, EPIC, all of which are more clearly heuristic than prescriptive. They are described later in this chapter.

measuring students' achievement; diagnosing pupils' present knowledge and skills, etc.

This represents a good summary of the field as a whole. But, let's examine the point of view briefly mentioned earlier. Referring to an article cited above, Cronbach (1963) offered a new and somewhat more comprehensive definition of evaluation. He defined it broadly, "...as the collection and use of information to make decisions about an educational program (p. 672)." This began a new movement in the field of educational evaluation.

Since that article, others have taken up and expanded upon this notion, producing most notably the CIPP Evaluation Model, originated by Stufflebeam and Guba (Stufflebeam, 1967a, 1967b, 1969). This definition of evaluation is typified in the following:

> Project operations or activities are evaluated to influence decisions which influence program operations which are in turn evaluated, ad infinitum (Guba and Stufflebeam, 1968, p. 20).

Stufflebeam (1969) also writes:

> ...evaluation means the provision of information through formal means, such as criteria, measurement, and statistics, to provide rational bases for making judgments which are inherent in decision situations (p. 53).

Finally, Wiley (1970) takes a similar position:

> Evaluation consists of the collection and use of information concerning changes in pupil behavior to make decisions about an educational program (p. 261).

It might be noted that this latter point of view is actually a synthesis of Cronbach (1963), Harris (1963) and Tyler (1950, 1951).

These views represent a new notion of educational evaluation. Taken together, they represent what could be called a Decision Maker Orientation of educational evaluation.

But still to be considered is the most important question of the implementation of a Decision Maker Orientation or Model of Evaluation. Traditionally it has been felt that the best evaluation was that done by the soundest, most rigorously controlled experiments, a la Campbell and Stanley (1966). However, the contention here is that traditional research paradigms are not adequate for doing educational evaluation. This view is held not only by this writer but by Guba (1969), Stake (1969a), Stufflebeam (1969) and Scriven (1969) and stems primarily from the fact that both the assumptions and goals of traditional research, perhaps better termed "conclusion-oriented research," are different from those of educational evaluation, or "decision-oriented research" (Cronbach and Suppes, 1969). A paradigm produced on the basis of the assumptions and goals of the former are of necessity and by definition inappropriate in accomplishing the goals of the latter.

It was pointed out earlier (Pace, 1968) that evaluation and testing have been used interchangably. The above named group of educators argue that this is an inadequate procedure for evaluation from the point of view of the actual decision makers involved. Simple testing seldom provides the kind of continuous, ongoing, day to day data needed as input for decision making. It is usually a post hoc, or after-the-fact, procedure, which may suffice for making terminal or product decisions but certainly is not useful in making decisions which are process ones, i.e., occur before the terminus of a project or program. (If a program, project or

enterprise does in fact ever end is another point. Probably June comes and the academic year is over and the enterprise is temporarily "suspended" rather than coming to an "end.")

Let's examine briefly some of the assumptions and goals of conclusion-oriented research. First, research has as its primary goal the advancement of knowledge, or "Truth." It strives to advance and extend knowledge. Furthermore, data collected from a research paradigm aimed at this goal must be internally valid (Stufflebeam, 1969; Campbell and Stanley, 1966) in order that it be as generalizable as possible (Stake, 1969a). To achieve all of this, a researcher might employ the principles of randomization of subjects and treatments and control of extraneous or interacting variables.

However, this is fundamentally different from the aims of educational evaluation, at least from the decision oriented position. Guba (1969) states that the evaluator is trying to devise and test some practical solution to an operating problem. He is concerned with resolving a number of problems simultaneously if he can. He is also concerned, and perhaps most importantly, with the need to be able to refine and/or adjust his solutions continuously. Unlike data produced by an experimental design, data which is usually post hoc, evaluation data needs to be continual in order that ongoing decisions regarding an educational program may be made while the program is in progress and not after it has been terminated. In fact, according to Stufflebeam (1969a), "...the application of experimental design to evaluation problems conflicts with the principle that evaluation should facilitate the continual improvement of a program (p. 49)."

Let's also examine more carefully the techniques of research and why

they are inadequate for evaluation. Regarding the notion of generalization, there is a basic difference between decision oriented and conclusion oriented approaches. In fact, even the title of one of Stake's articles (1969a) articulates this difference: "the need for limits." In evaluation, Stake argues, the purpose of inquiry is for "specification" whereas in research the inquiry is for "generalization." He is saying that the purpose of and results of evaluation should not be generalized and can not be generalized. There is a "need for limits" regarding the generalization of evaluative data. Evaluators are not concerned that findings hold true over different schools, over different communities and over replications. Obviously this is not true of findings in conclusion oriented research since in order to "extend knowledge" generalizations have to be made from the experiments and the wider the generalizability, the better.

To achieve control over those threats to validity set forth by Campbell and Stanley (1966), e.g., history, maturation, etc., the researcher tries to use randomization to assign students to treatment and control groups. He tries to hold all other variables except treatment variables equal during the duration of the experiment. The treatments can not be modified during the course of the experiment. Again, this is exactly what evaluators do <u>not</u> want and in fact do not and usually can not have. Seldom if ever can evaluators exert the kind of control which is demanded by experimental research. The evaluator is usually working with a specified problem in a specified setting with specified subjects. He can not as a rule randomly assign subjects or treatments, run control groups, or control for the various threats to validity. In addition he

does not want to be representative of others, but rather wants to look at the given program for its own value as it is perceived by the decision makers of that program (Guba, 1969).

Assuming that such tight control can be exerted, and extraneous variables are held in check, then the findings which result, as both Guba and Stufflebeam will point out, will not even be generalizable to the school or program at hand, for in a school or program in the real educational world, these so called extraneous variables operate freely. It is important therefore to know how programs operate under real world conditions and not under the carefully controlled conditions of a laboratory situation (Guba, 1969). Stake (1969a) concurs on this point:

> ...as soon as we exercise a reasonable degree of experimental control, as soon as we provoke some variability in the program and hold other aspects constant, the product is altered. Many an educator finds the program being researched no longer the program he wanted to know about (p. 2).

There are yet other differences which exclude the utility of experimental designs. Gagne (1967) writes that most learning experiments have been concerned with the effectiveness of single units of a curriculum, or at the most a very few units. A traditional research paradigm such as a pre-post test is fine for examining a single unit but it obviously fails when looking at a larger, on-going, constantly changing program with interacting variables over which there are no controls. Stake (1969a) concludes his argument this way:

> There are two approaches. We have a fundamental choice: to be scientific, to generalize...to find out why; or to be descriptive, to be delimited...to find out what (p. 2).

The former represents to this writer conclusion oriented research and

the latter, decision oriented research .

The words of Egon Guba (1969) would best summarize this section on the differences between experimental research and evaluation:

> ...an evaluation paradigm that emphasizes control when invited interference is needed; that prevents attention to more than one problem at a time;... that provides only terminal data; and that renders impossible the crucial requirement for continuous adjustment and refinement, simply cannot be judged very useful by the practitioner. Indeed, he must find such a paradigm not only useless but in fact crippling to his purposes (p. 4).

What is clearly needed, therefore, in the field of educational evaluation, is a new approach to implementing evaluation which is consistent with the new decision oriented evaluation movement. New methodology is needed as well as the testing and further development of such methodology.

The Fortune/Hutchinson Evaluation Methodology: a Methodology built upon implications of the purpose: to provide data for decision making.

In answer to the immediate need of educational evaluation, namely the need for methodological development and research, Fortune, Hutchinson, and others set about doing such development. Beginning with a more comprehensive and more utilitarian definition of the purpose of evaluation, namely to provide data for decision making, they have proceeded to develop prescriptive, not merely descriptive, procedures for educational evaluation. In fact, they contend that the only legitimate function of this evaluation methodology is to provide data to decision makers for their decision making purposes. (It should be pointed out that they are not the first to use this concept in the field. The reader is referred to the 1963 article by Cronbach and the later work (1969) of Cronbach and

Suppes, as well as the 1969 article of Stufflebeam's.) Fortune and Hutchinson have, however, considered the concept to a further degree, and better incorporate the concept in their methodology, than do others who seem to verbalize it more than build upon it, or even really seriously consider it. Witness for example the recently published PDK-AERA monograph, Stufflebeam, et al., 1971 where the authors state that the purpose of evaluation is to provide data for decision making but fail to make provisions for including the decision makers in the evaluation process at any of a number of decision making points in their evaluation model.

Beginning with the purpose to provide data for decision making certain implications arose, implications overlooked by other "decision-oriented" models (Hutchinson, 1972). Three "user" criteria emerged for evaluation practice: (1) efficiency: An evaluation is efficient to the extent that it provides only that data which a decision maker actually uses; (2) completeness: An evaluation is complete to the extent that it provides all the data needed by a decision maker; and (3) focus: An evaluation is focused to the extent it provides all the data for the decision makers' highest priority needs.

These three "user" criteria have counterparts on the evaluation methodology level. i.e., "evaluator" criteria: (1) efficiency for the evaluator implies a continuing high degree of contact with the decision maker and continuing review by the decision maker; (2) completeness implies that the methodology tests for completeness as to the decision makers' needs on a continuing basis; and (3) focus implies that methodology use decision maker priorities at every stage, rather than the evaluator's or someone else's.

This level of analysis of the implications of the purpose to provide data for decision making yields yet another level of criteria: the level of the methodologists, or of methodological development. (To reiterate an earlier point, the purpose of the methodology is the key to methodological development.) Evaluators need procedures the effectiveness of which can be measured and which can be revised if they do not work. Field testing of pieces of the methodology should occur under simple, available conditions where identification of what doesn't work can occur, rather than in giant, complex studies, where confounding results abound. One final implication is that methodology for evaluation will probably never be complete, so the methodologists' work will never end.

The Fortune/Hutchinson Evaluation Methodology: An Overview of Its Major Components.

Following an examination and delineation of the implications of such a purpose, the methodologists then proceeded with the development of the actual elements of the methodology. This section of the paper is an overview of the major conceptual elements of the evaluation methodology, with some discussion of the purpose of each element.

1.0 Negotiation of the contract.

1.1 Explication of the evaluation methodology and determination of whether it satisfies the needs of the temporary decision maker.

This step provides for identification of the temporary decision maker (the person controlling the evaluation resources); a statement of the purpose and an overview

of the methodology; and the securement of a commitment from the temporary decision maker that this is what he wants.

1.2 Identification of the enterprise.

The enterprise is defined as that which is to be evaluated, or that area in which decisions are to be made on the basis of information to be gathered. Here the enterprise is delineated, including its purpose, scope, etc.

1.3 Elimination of misunderstanding.

This is done to insure a mutual understanding between evaluator and decision maker and to prevent the evaluation from being erroneously designed.

1.4 Identification of resources for evaluation.

The temporary decision maker identifies those resources of the enterprise available to devote to the evaluation. Resources are of two major kinds: those to be divided for evaluation among the various decision makers of the enterprise and those to be divided among the various evaluation tasks for each decision maker. The scope of the evaluation is equal to the amount of resources available.

1.5 Identification of decision maker(s).

All enterprises have more than a single decision maker (unless the enterprise is defined as a single individual). A decision maker is defined as a person for whose decision

making needs evaluative data are to be gathered. It is necessary and important to define and identify those decision makers, as well as their priority order, for each is a potential user of data and each potentially needs different data. The evaluator has to know which decision maker(s) he will have to operate with and in which order.

1.6 Preparation of the contract.

The actual agreement on the scope of the evaluation is committed to writing here before the evaluation proceeds.

2.0 Design of the evaluation

2.1 Identification of goals for each decision maker.

The evaluator elicits the goals or intents of each decision maker for whom information will be gathered. These are tested for completeness and systematically ordered as a guide for proceeding with the evaluation. The purpose is to arrive at as complete an approximation as possible of goals/intents of each decision maker as specified in the contract.

2.2 Identification of parts of the enterprise for each decision maker.

This is a systems analysis for evaluation from the perspective of each of the decision makers for whom data is to be provided. Decision makers need data not only (or even usually) about their global enterprise but rather about specific parts or aspects of

that enterprise. For data to be provided about parts rather than, or in addition to, the whole, a parts process has to be employed and it is done here.

2.3 Matching of goals to parts for each decision maker. The goals arrived at above (2.1) are matched to the appropriate parts (arrived at in 2.2) in order that it be known which goals belong to which part or are held for each part. This is done to provide a more efficient evaluation design and to provide more useful data for decision making.

2.4 Operationalization of goals for each decision maker. Goals/intents are usually "fuzzy," i.e., global, vague, general. This process systematically takes each goal and has the decision maker break it down into its directly observable and measurable components. This is done by a technique called the Operationalization of Fuzzy Concepts. These components are tested for completeness and then prioritized.

2.5 Development of observational techniques. Observational techniques are designed for the first priority operationalized component of each decision maker's goals. Ideal criteria for observational techniques are that they be used directly, under natural conditions, unobtrusively. If available techniques do not fit these criteria, unique techniques are designed for the component at hand. These techniques

are matched with resources to insure that they are not too costly vis a vis evaluation resources. (When this is accomplished, the process is recycled back for the next priority operationalized components.)

3.0 Implementation of the evaluation design.

3.1 Implementation of measurement.

Data recording devices are developed for the observational techniques developed (2.5). Sampling is done, if appropriate, both of observational techniques and of the target population. Then the actual observations are carried out. Data is reported (cf. below) and plans to repeat the observation are designed as appropriate. (Recycle back for the next priority operationalized components as resources permit.)

3.2 Reporting the data.

Data is reported (on the results of 3.1) to the appropriate decision makers from the list of decision makers and in an efficient and appropriate manner, i.e., relating back to the observational techniques used, the operationalized components(s) they are used for, for which goal and which part, and for which priority decision maker.

3.3 Evaluation of the evaluation.

The evaluator determines the extent to which decisions were made on the data provided. He determines the amount of data provided which was used in the decision making process. He determines if the data was provided in time

for the needs of the decision maker and if the decision maker had more pressing needs for which data were not provided.

3.4 Redesign of evaluation.

Redesign is systematically planned for the whole process and for each sub-process as determined by, or asked for by, either the decision maker(s), the temporary decision maker or the evaluator. It is first determined if redesign is necessary and then for which parts of the evaluation it is to be done. The redesigned part(s) would then be tested and adopted or redesigned as appropriate.

This is the basic outline of the F/H methodology. Although presented here in an abbreviated form, it does highlight the key elements of the methodology.

These various elements are in various stages of development. The entire methodology has been field tested at levels varying from a single integrated day, K-1 program (Benedict and McKay, 1970, 1971); through an evaluation of school wide programs (Gordon, 1973). The OFC process has not only been field tested formally (Jones, 1970), but has had a substantial amount of dissemination (Coffing, et al., 1971) and implementation. The Goals Process will be the focus of this investigation.

Goals Processes in the Decision Maker Movement of Educational Evaluation

Stake (1969b) writes, "Our concern for goals is adequate, but our ability to represent goals is inadequate (p. 34)." Scriven (1967) deals

at several points in his essay with the importance of goals in curriculum evaluation. He writes that one of the first steps in curriculum development of which evaluation is and must be an integral part is goal formulation, or goal identification. In fact, in reviewing the literature, it seems that no current evaluation methodologist leaves the topic of goals out of his schema entirely. It is a topic of central importance in evaluation methodology today. Yet, for all its importance, it is presented in the available literature in extremely fuzzy terms, so fuzzy that this author has been led to conclude that like the extant models of evaluation, the goals processes within these models are more heuristic than prescriptive. Furthermore, no systematic methodological development is now being done in the area of goals processes, despite the need for such development.

Before proceeding to an in-depth discussion of the existing goals processes, it is appropriate to define several terms. The term "goals process methodology" is defined by this writer to be a systematic, operational set of rules and procedures for arriving at as complete an approximation as possible of decision maker goals or intents for a given enterprise. (This concept is fully expanded in Chapter II and again in Chapter III.) This definition implies that a goals process methodology have procedures for identifying intents; for testing these intents to be sure that as many of these intents as possible have been identified; and finally, for prioritizing these intents. Any set of procedures which accomplishes less than these tasks would be considered incomplete.

A model is defined by this writer to be a set of rules and procedures which are <u>not</u> fully operational (Hutchinson, 1972). Models are less

prescriptive and more descriptive because they are not fully operational.

For the most part what currently exists for implementing the new concept of educational evaluation is not methodology (excluding for the moment the F/H methodology) but models of evaluation. Some five models have arisen over the last decade within the decision oriented evaluation movement. These are: EPIC; Stake's model; Provus' Discrepancy Model; Stufflebeam's CIPP Model; and finally the "quasi" model of Scriven. Rather than describe these models in general it would be more appropriate to describe the goals processes in them since the focus of this investigation is the Goals Process in Fortune/Hutchinson.

Each of the five contains a goals process of sorts. Each such process exists on a different level of specificity but for the most part, this investigator would conclude that they are more descriptive than prescriptive and that they contain many gaps. In all instances, the goals processes are fuzzy and vague.

The originators of the various models are aware that gaps exist in the area of goals methodology (witness the opening paragraph above) but to date, methodological development on goals processes and gaps within them has not been undertaken. This is, in fact, one of the unique aspects of this investigation: it proposes to undertake systematic, methodological development on a goals process, and the gaps within it, specifically that within the F/H Evaluation Methodology.

A brief description of the topic of goals in the five models would be appropriate at this point. The EPIC Model (EPIC Brief #2) has developed out of an ESEA Title III Project in Tucson, Arizona. Its purpose is to provide decision making data to local school decision makers on different

levels and on different "variables": Institutional, Instructional, and Behavioral. The Model calls for the construction of a three dimensional matrix based on these three variables. The individual "cubes" or "blocks" of the matrix are then filled in, i.e., the variables identified, after that part of the enterprise to be evaluated has been identified. These "cubes" are then called factors. After factors are identified, behavioral objectives are written, an evaluation designed and a determination is made of objective achievement.

In outline form, the first few steps look like this:

I. Planned Program

A. Identifying variables that are felt to be affecting the instructional program.

B. After variables are defined, they can be combined into factors.

C. Once the factors have been formed, the behavioral objectives are written. Essentially, four questions must be answered by a behavioral objective:

1. What is the institutional variable?
2. What is the instructional variable?
3. What is the behavioral variable?
4. How is the behavior going to be measured?

The task of writing objectives becomes a very easy one, since three of the four questions have been answered as a result of the factors produced through identification of the variables influencing the program (p. 8).

The EPIC Brief goes on to say that,

> Once the program objectives have been stated, an evaluation design can be developed. This design is basically a description of how the data is to be collected and analyzed in order to determine if the objectives have been met (p. 8).

It would seem that such a model is more descriptive of a program than

prescriptive or evaluative. The originators see it as helping local decision makers more clearly see the various forces and their interactions working on and within a given program. How goals are ascertained, or their relationship to the variables or objectives set forth is not discussed. The reader is only told that behavioral objectives are written. This Model seems to imply that "writing behavioral objectives" constitutes a goals process methodology. This writer would argue it does not. Simply writing behavioral objectives is not a goals process methodology. In fact, a systematic, well defined goals methodology is absent from this model in the opinion of this investigator.

Stake's model also calls for a matrix whose purpose would seem to be to describe the program for the purpose of making judgments about the program, the goals of the program and the achievement of those goals. Stake would have evaluators describe antecedent conditions and classroom transactions and "couple" them with outcomes of the classroom transactions. Once these three matrix areas are filled in, they are to be compared to some "standard," following which the evaluator would make judgments about what has/hasn't occurred, and the value and merit of these occurrences. He would also judge those goals for which the program was striving.

Stake, in his writings, is very concerned with goals:

> For many years, instructional technologists, test specialists, and others have pleaded for more explicit statement of educational goals. I consider "goals," "objectives," and "intents" to be synonymous. In this paper, Intents includes...effects which are desired, those which are hoped for, those which are anticipated, and even those which are feared. This class of data includes goals and plans that others have, especially students (1967, p. 530).

Stake goes on in the article to describe the variety of things which are

part of this "goals" area:

> The educational evaluator should not list goals only in terms of anticipated student behavior....How intentions are worded is not a criterion for inclusion. Intents can be global... (or) detailed....Taxonomic, mechanistic, humanistic, even scriptual--any mixture of goal statements are acceptable as part of this evaluation picture (1967, p. 531).

Stake seems concerned only that the intents of the decision maker be identified not their grammar or phraseology. This sounds ideal. The next question is, "How does one collect this information," or "What procedures are employed to ascertain such goal statements?" It is precisely here that Stake admits his model and even conceptualization is lacking.

> Obtaining authentic statements of intent is a new challenge for the evaluator. The methodology remains to be developed (emphasis added, 1967, p. 531).

For all his concern, a concern shared by this author, Stake himself, in these words, admits the non existence of a goals methodology and in so doing, presents the strongest call for methodological development on a goals process to be found in the literature.

In a more detailed presentation of his model Stake (1969b) again expounds on the role and current status of a goals methodology:

> "...we need a better way of delimiting objectives. As I have said, I feel that neither the behavioral specification of goals nor the global summary of goals represents what the schools are trying to do (p. 36).

He goes on, discussing some of the implications a goals methodology will have to be able to deal with:

> A truly representative list of educational goals will contain competing and even contradictory goals. Goals compete with each other....We have to choose among our goals. We assign priorities to them....Some goals will be contradictory. We seek incompatible outcomes....We seek to serve a pluralistic society. Contradictory goals

> are to be expected in a pluralistic society...Evaluators should be alert to the fact that goals are changing. Our world changes. Our needs change. Our values change.... A program evaluation is incomplete if it goes no further than designating several specific goals at time zero (1969b, p. 36).

Also, Stake writes,

> ...we are obligated to identify groups of goals, ascertain priorities and reveal the dynamics of changing prioritities (1969b, p. 36).

Stake is saying that a goals methodology must incorporate: (1) procedures for identifying goals; (2) competing goals; (3) contradictory goals; (4) changing goals; and finally (5) priorities of goals. This author has quoted in length here because of the importance of the implications of what Stake is saying. In a sense, he is providing a conceptual guide for what a goals methodology would have to include. In so doing, he again points out the need for methodological development on a goals process.

> Two colossal problems lie before us: how to translate global objectives into specific behavioral objectives and how to derive appropriate teaching tactics (1969b, p. 29).

This writer would point out that Stake has implied another "colossal" problem without specifically defining it: one can't translate global objectives into specifics if one doesn't have a set of global objectives identified. To arrive at this latter, a goals methodology is needed. None exists, as Stake himself pointed out above.

What the author has tried to do here in abstracting in detail from Stake is not so much to show the existing deficiency of his model in the area of a goals methodology as to use him as an expert in the field to show the gross inadequacies of goals processes in the field as a whole. The result of this quoted material is obvious: educational evaluation

needs to have undertaken methodological development in a goals methodology. This need is wide spread and immediate. Furthermore, until this investigation, an attempt to fulfill this need has not been systematically undertaken.

The non-occurrence of a well defined goals methodology within Stake's model is typical of decision oriented evaluation models in general. Provus (1969, 1971) also has attempted to deal with this problem. He more clearly differentiates "whose" goals and the role they play in his Discrepancy Model, but he is equally vague as to how they are ascertained.

Provus' Discrepancy Model, which this investigator feels is more in the decision oriented genre than Stake's, is conceptualized in five stages: (1) design, (2) installation, (3) process, (4) product and (5) cost.

> At each of these stages a comparison is made between reality and some standard or standards. The comparison often shows differences between standard and reality; this difference is called discrepancy. On the basis of the comparisons made at each stage, discrepancy information is provided to the program staff, giving them a rational basis on which to make adjustments in their programs (Provus, 1971, p. 46).

Where does a goals process fit in the Discrepancy Model? Kresh (1969), for example, in an article whose purpose is to describe an application of the Discrepancy Model, states the following about the goals process in that application:

> The actual (evaluation) design is derived as a result of a design meeting. The evaluator invites to this meeting either all the personnel involved in the project, or if the staff is too large, representatives of each personnel level. The program staff with the assistance of the evaluator works together to determine the goals of the program, what they are already doing in their existing programs to meet these goals and what new elements must be added (p. 12).

In the actual example of the application of the model, Kresh herself, by her description, supports this writer's contention that the goals

process in the Discrepancy Model is descriptive at best and very fuzzy.

> The first step was to get a comprehensive description of the goals of the program as viewed by the staff and how the program was actually operating. The task turned out to be an impossible one since the program operated very differently in each of the schools. After much effort, the group was able to arrive at some general guidelines as to some rather global goals, what the qualifications of the teachers should be and what type of activities should be occurring (1969, p. 21 emphasis added).

Kresh's example of what happened confirms the lack of a specified goals process in the Discrepancy Model, at least as this model was implemented (or an attempt made to) in Pittsburgh.

Provus (1969), in a later and more detailed description of his model provides little additional information to clarify this. In the first stage of his evaluation model, he offers some nine steps. The first five are appropriate to present here:

1. Description of the client population.
2. Description of the staff.
3. The major terminal objectives.
4. The enabling or intervening objectives.
5. The sequence of enabling objectives.

If the reader thinks that further specifications for steps three through five follow in Provus' work, they don't. He goes on,

> Perhaps the most difficult part of defining a program is deciding how much detail is needed in the formulation of educational objectives....For most purposes, it is still considered essential that program objectives be stated in behavioral terms....However, the complexity and scope of any new program determine the level of specificity at which its objectives can be initially stated. Most ongoing school projects are so very complex that, in the early stages of evaluation definitions should be oversimplified (1969, p. 268).

Such rhetoric and language lead the reader to conclude that Provus

is even unsure of the level of conceptualization of a goals process. As in the Kresh example above, the concept of a group working toward consensus is present here. Provus (1969) also goes on to write, "Objectives must be arrived at by a method of successive approximation (p. 269)." Exactly how all this is done is made none too clear and the reader must conclude that Provus too does not have a clearly defined goals methodology.

Perhaps the most detailed model currently available in the decision oriented movement is the CIPP Evaluation Model, developed by Stufflebeam and others at Ohio State (Stufflebeam, 1967a, 1967b, 1969, 1971). For all its detail, though, it too lacks a systematic, clearly defined goals methodology. Stufflebeam differentiates between four types of evaluation, based on four kinds of educational decisions: Context, Input, Process and Product. This model is designed to provide information at these four levels or phases of a program. Of the four phases or types of evaluation, only one area deals with goal specification: Context Evaluation. The objective of Context Evaluation is:

> To define the operation context, to identify and assess needs in the context, and to identify and delineate problems underlying the needs (Stufflebeam, 1967b, p. 130).

The purpose of the next stage, Input Evaluation, is, "To determine how to utilize resources to meet program goals and objectives...(p. 129)." As to exactly when, where and how goals and objectives are formulated is never stated. They somehow arise out of the discrepancy information gathered in the needs assessment of context evaluation. Of all the many Stufflebeam articles and publications related to CIPP there is no clearer statement about this process on goal formulation than what appears above.

Even in Stufflebeam's (1971) latest work and therefore supposedly the most up-to-date, the reader finds this buried deep in the book:

> A fourth task in the delineating stage of the context evaluation is identifying the objectives for the instructional program. The task of the evaluation unit is to state the objectives so that they facilitate communication between the evaluation unit and the designers and implementers of the program. The approach to the problem of stating objectives must be in terms of meeting the needs of the unit and the decision levels to be served (p. 247).

This short paragraph seems to be the sum total of a goals process in the CIPP model. In trying to sum up this process it seems that CIPP ascertains goals by a needs analysis or "needs assessment" of the major levels of decision makers for a given program. How this needs assessment is conducted is unclear within this model. The issue of how decision makers are identified and their needs assessed is not clearly presented. In addition, the CIPP Model raises the questions of why the needs exist; what problems are related to these needs, what objectives are related to the problems, how needs are related to by goals and so on. The relationships among all these various issues though is extremely unclear. In short, the goals process in CIPP is, like the other models described, insufficient, unclear, and lacking both in a clearly defined purpose for itself and a clearly defined methodology to accomplish that purpose.

The fifth model is not really a model at all but rather a philosophical statement by a philosopher-would-be-evaluator. However, it has grown out of the decision maker orientation of evaluation and Scriven still seems to be associated with that movement and thus the reason for discussing it here.

Scriven (1971) has promulgated some ideas related to his concept of

evaluation which is clearly a judgmental approach to evaluation. Scriven states that the evaluator must judge the worth of goals as he perceives their achievement. He is not concerned with the decision maker's statement of his intents but rather with what the program is actually achieving, and thus the term "goal-free." He does not want to know decision maker goals, which are in fact superfluous to the evaluation effort from Scriven's point of view.

To illustrate this concept, some examples are provided of Scriven's concept of "goal-free evaluation" (GFE). He writes (1971), "You can't do an evaluation without knowing what it is you're supposed to evaluate--the treatment--but you do not need or want to know what it's supposed to do (p. A4)." He goes on,

> There's nothing wrong with classifying evaluators by their past performance. You only risk contamination when you tell them what you want to do this time, using the goals of this project as you do so (p. A5).

The implication here is that knowing decision maker's goals for their enterprise will "contaminate" the evaluator and his ability to "evaluate."

At another point in the same article, Scriven writes,

> The important question is not whether I do infer the goals but whether I may infer some other possible effects before I am locked-in to a 'set' towards the project's own goals (p. A6).

This would seem to be the main focus or role of GFE: to observe and assess "side effects," i.e., things in addition to, or instead of intended outcomes.

Where do the decision maker's goals enter GFE? They don't.

> BUT there is something else one can do to improve flexibility--not much, but something. And that is to divorce evaluation from goals. Goals are necessary for effective planning and implementation. They are not necessary for evaluation...(1971, p. B2).

Scriven also seems to imply that there is something "superior" about a goal-free evaluator (GFEr):

> The goal-free evaluator (GFE) is a hunter out on his own and he goes over the ground very carefully, looking for signs of any kind of game, setting speculative snares when in doubt. The goals man has been given a map which supposedly shows the main game trails; it's hard for him to work quite so hard in the rest of the jungle (1971, p. B2).

Whether the reader likes his analogy or not, Scriven seems clearly to favor the GFE approach. As a philosopher this role may seem entirely consistent to him but to a decision oriented evaluator, such a GFE role must surely seem no better than the evaluator-as-expert model which as has been pointed out earlier in this chapter has not been successful in providing data for decision making.

In fairness to Scriven, it should be pointed out that after he wrote the material quoted above, he did go on in the article to say that GFE is only one type of evaluation; there are other kinds, e.g., internal. However, this GFE approach seems to be the one Scriven favors. He would concede, though, that GFE might, maybe even should, be carried out in conjunction with other types of evaluation.

In fairness to EPIC, Stake, Stufflebeam and Provus and their models, it could be stated that <u>perhaps</u>, indeed, these models do have specific goals methodologies developed and that they indeed have handbooks of specific, prescriptive steps for conducting the goals part of evaluation. However, in any of the available literature these do not appear. The reader must conclude that if they do have such, they have been kept "hidden," or at least not widely disseminated and the examples and written statements provided by these authors themselves, indicate that such guides

or steps are not available and have not been developed.

This has been an overview of goals processes in the models of evaluation in the decision oriented approach to evaluation. Finally, any discussion of extant goals processes in education should take into consideration two works which are unrelated to the decision oriented models per se. However, because of the titles of the works, the uninitiated or lay person would (mis)construe their contents to be concerned with goals processes.

The first is entitled Establishing Instructional Goals (Popham and Baker, 1970). The title would seem to indicate that here is a handbook for establishing goals; a goals process methodology. Upon opening the book, though, the reader discovers that it contains five self-instructional programs, none of which deals with establishing goals. The book is basically a re-presentation of the ideas of Popham and Baker on being able to identify and write behavioral objectives. (Goals and behavioral objectives are used interchangeably.) Clearly, this is not a goals process methodology but simply another tool dealing with behavioral objectives.

The second work is entitled Goal Analysis (Mager, 1972). It picks the practitioner up at that point where goals are already specified and/or identified.

> The function of goal analysis is to define the indefinable, to tangibilitate the intangible--to help us say what we mean by our important but abstract goals (or Fuzzies...) (p. 10).

In short, before Mager's goal analysis can be applied, it is necessary to have previously identified a set of goals. Goals are given before a goal analysis is appropriate.

How does Mager define a goal analysis? Basically, he means being able to identify a "fuzzy concept" and set about defuzzing it. This author

would contend that (1) this is not even a part of goal identification, formulation and prioritization--the purposes of a goals process in general--and (2) that a better, more systematic methodology already exists for doing a better job of what Magar terms a goal analysis. That methodology is the Operationalization of Fuzzy Concepts (OFC), (Hutchinson and Benedict, 1970; Coffing, et. al, 1971). OFC is a systematic, operationalized set of rules and procedures for taking a fuzzy concept and reducing it to its observable and measurable states.

In summary, then, these two works, despite the connotations of the words in their titles, do not provide a goals process methodology. They provide no prescriptive steps for identifying the intents or aspirations of decision makers. The skills they are concerned with are tools which can be used in performing other parts of evaluation, but they are not skills which are part of the goals process of evaluation methodology.

Statement of the Problem

The purpose of this investigation is to undertake systematic, methodological development on the Goals Process in the F/H Evaluation Methodology.

Fortune and Hutchinson, who have developed an evaluation methodology, are aware that their methodology is not complete with respect to the Goals Process; that within it gaps do exist. The biggest gap in the Goals Process prior to this investigation was its rudimentary state of documentation. Aside from class notes of Hutchinson (1970, 1971), and presentations made by Hutchinson at several evaluation workshops, only a two page workshop outline (Benedict, 1970) based on the evaluation workshop

presentations existed to document the Goals Process. The first and initially most necessary task of this investigation would be to document the Goals Process in the F/H evaluation methodology. Documentation is an integral part of methodological development.

Once the Goals Process was documented as to its current state, methodological work could be undertaken with respect to the gaps in that Process. In the context of this investigation, the best definition of gap would be that given by Webster's Unabridged Dictionary: "an interruption in continuity." Gaps in the Goals Process would be interruptions in the continuity of that Process. These could be due to any number of reasons and could take on several forms. They would include at least the following:

1. A break in the logical progression of steps.
2. A missing element, step, or substep.
3. An incorrect ordering of an element, a step or substep.
4. An insufficient number of steps to accomplish a specific purpose or subpurpose.
5. A fuzzy concept.
6. Unoperationalized purposes or steps.

The purpose of this investigation is to document the Goals Process as to its current state of existence; to do methodological development in the area of the Goals Process in the F/H Evaluation Methodology; to identify in that Process existing gaps; to select and define one specific gap for field testing; and to develop a mechanism to deal with the gap as appropriate.

CHAPTER II

THE SYSTEMATIC DEVELOPMENT OF METHODOLOGY

The Need for Methodological Development and Research in Educational Evaluation

The field of educational evaluation has not yet reached the point of identifying and stressing the need for doing methodological development and research. The few evaluation "methodologists" writing in the field are just now reaching the point of stressing the need for methodology, and until the field as a whole accepts this need, it is unlikely that the subsequent and necessary need of methodological development will be acknowledged and recognized.

There are few educators writing of methodology and the need for methodology and even a brief examination of the current state of those writings makes it obvious that not only are there many gaps between theory and practice, but many gaps in the theory itself. This view is not simply a personal bias on the part of this writer. Scriven (1967) in what was, and perhaps remains to date, the most important essay on evaluation methodology, wrote:

> Current conceptions of the evaluation of educational instruments (e.g., new curricula, programmed texts, inductive methods, individual teachers) are still inadequate both philosophically and practically (p. 39).

And in an attempt to deal with some of these "deficiencies" as he termed them, he proceeded to write an essay which identified the few existing methodological procedures available to education, but more so, identified some of the many areas where there is no methodology. He concludes his paper with this telling phrase:

> The aim of this paper has been to move one step further in the direction of an adequate methodology of curriculum evaluation (p. 83).

Notice the use of the phrase "one step." He considers his paper, one of the most important to date on the subject, as merely a single step, implying he, and we, have not reached a fully developed or even adequate methodology of educational evaluation. Despite the fact that the essay is now six years old, the implications are as true today as then.

Stufflebeam also describes this need for methodology when he writes that in his judgment, one of the most basic problems in education and educational evaluation is "...a lack of adequate theory or conceptualizations pertaining to the nature of evaluations which are needed to accommodate educational programs (1969, p. 45)."

Both of these leading educational evaluation theorists agree on the lack of extant methodology. Glass (1969), in a paper focused on the "growth of evaluation methodology" devotes most of his paper to where evaluation methodology has <u>not</u> grown and where it should grow; more with what isn't than with what is.

> The discipline of educational evaluation is now established on a foundation of experience and thought that can support growth....The purpose of this paper is to identify five problems; the solutions to these problems <u>could</u> substantially advance the theory and application of evaluation (p. 1, emphasis added).

Note that Glass claims we only have a "foundation" for a discipline; that he is only asking questions, not answering them; and even more important, the tentativeness of the word "could" should be noted. Glass, too, is describing a nascent field of academic endeavor, with more unanswered questions than tested procedures, and in so doing, is calling for

much needed methodology.

The need, then, for methodology in educational evaluation is substantiated in the literature. The need for methodological development and research, though, is not being called for in the literature. Yet, the latter is an obvious extension of the arguments made for the need of methodology, for methodological research can not occur until methodological development has been undertaken. And the latter will not occur until the need for methodology is widely acknowledged.

The Hutchinson/Thomann Metamethodology

At this point, though, it would be relevant to briefly elaborate on how one goes about doing methodological development or research on a particular problem, in this case, the Goals Process. First, certain terminology needs to be defined. Since this investigation deals with methodological research, a short definition of it would be appropriate at this point. Some people differentiate between methodological development and methodological research. Indeed, the two concepts do involve different things and connote different meanings. However, from this writer's point of view, methodological development is the more global of the two terms and actually includes the concept of methodological research. In fact, methodological research is an integral part of methodological development. Throughout this document, then, the use of the phrase "methodological development" is meant to include the subconcept of methodological research and the reader should not think otherwise.

The question can be asked, and legitimately so, how does one proceed with methodological development? Does one wait for a thunderbolt from

Zeus to move one from his chair? An inspiration from Heaven, perhaps, or a creative explosion some morning? If these were the only motivators or methods to methodological development, little methodology would be developed. However, there has been a systematic procedure entitled Metamethodology developed by Hutchinson and Thomann (Thomann, 1972a; 1972b) for proceeding with methodological development.

Methodology is defined as a systematic, objective and standardized set of rules and procedures to accomplish a definable purpose. (Hutchinson, 1970, 1971.) Methodology is further described by Thomann (1972b) 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 the solution is derived. It is operational because the steps by which the solution is arrived at are as prescriptive as possible (p. 3).

Finally, Metamethodology, as developed by Hutchinson and Thomann, is a "methodology whose purpose is to develop a methodology for any definable purpose (Thomann, 1972b, p. 8)." Hutchinson also defines Meta such that for any given methodology, the application of its unique set of rules and procedures to the purpose specified for it will result in the accomplishing of that purpose. Since Metamethodology is dealt with in detail elsewhere (Thomann, 1972a, 1972b), it will not be discussed in great detail here. Some discussion, though, is in order.

Metamethodology has three major phases. The first phase is the identification and testing of the purpose for the methodology. This phase provides for putting the methodologist in contact with the problem; identifying the specific area of need; determining the purpose of the

particular methodology to be developed to fill that need; and finally, "testing" that need (purpose) to see if it is desirable, operationalizable, practical, and if it does not overlap or reproduce extant methodologies.

The second phase of Meta deals with developing the methodology. This phase provides for an analysis of the implications of the purpose and a logical ordering of those implications; the operationalization of the purpose using the Operationalization of Fuzzy Concepts Methodology[1]; and finally, the identification of logical gaps in the product of the latter two steps, with the development of methodology to fill those gaps.

The third phase of Meta is the testing and redesign phase, wherein decision oriented research is conducted and revisions made in the methodology as appropriate. The methodologist recycles in this last phase, revising the methodology based on the decision oriented research, doing decision oriented research on the revised methodology, revising, testing and so on. Decision oriented research is conducted again and again until it is no longer productive, at which point, conclusion oriented research is initiated.

This investigation has been methodological development and research on the Goals Process in the Fortune/Hutchinson Evaluation Methodology. The Hutchinson/Thomann Metamethodology was employed as the major research procedure. Given the purpose of the investigation, namely the documenting, developing and researching of the Goals Process, the research procedure

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[1]A methodology developed by Hutchinson and others: Cf. Hutchinson and Benedict, 1970; Jones, 1970; Coffing, et al., 1971.

was implemented.

Methodological Development on the Goals Process

The purpose of the Goals Process in F/H is to arrive at as close an approximation as possible of decision maker goals or intents for the enterprise. In documenting and developing this Goals Process, it was necessary to apply the four criteria to test this purpose (step three of Metamethodology): desirability, operationalizability, practicality and redundancy/overlap. That this purpose was desirable was obvious in the light of (1) the absence of extant methodologies to deal with the problem, (2) the need for such a process as called for in the literature, (3) the obvious importance of a Goals Process to the F/H Methodology and (4) the absence of methodological research on goals processes in the research literature.

The purpose was also operationalizable given the existence of the Operationalization of Fuzzy Concepts methodology and the training of the investigator in that methodology. Determining the practicality of this purpose involved several aspects. It had to be determined if a methodology could be developed within the resources available and relative to its purpose. (Resources include not only time and money but also the expertise of the investigator.) Also it was necessary to try to predict if the methodology developed could be applied practically. This develops out of the research and in this case only a prediction could be made since the determination of practicality is an extension of this research and has not yet been systematically done.

Finally the fourth criteria was applied. Extant methodologies either

do not exist, or are insufficient to accomplish the purpose of a Goals Process. This was obvious by a literature review of extant Goals Processes and by the scanty written materials available on the F/H Methodology itself cited earlier in Chapter I.

Next, a skeletal outline of the goals methodology was produced. This was done through a combination of the operationalization of the purpose, i.e., to arrive at an approximation of decision maker goals or intents, and an analysis of the implications of that purpose. This outline was then tested against several criteria to make it as complete as possible. First, an analysis was done of it simply in terms of the outline's internal consistency, its internal logic. This resulted in modifications.

It was then tested against one of the originators of the methodology (Dr. Hutchinson) as to its logic and consistency and as to its representativeness of the authors' intents for their methodology. Finally, it was tested against several other evaluation methodologists for their reactions. These tests also resulted in modifications.

As a result of this process, the Goals Process in the F/H Methodology has been fully developed and documented as far as its current state is concerned (cf. Appendix A). Does this mean that the Goals Process in F/H is complete? No. It simply means that what exists of the Goals Process at present is fully developed and documented. This is what has resulted from the first part of the investigation.

Further research was obviously necessary to be sure of the completeness of the Goals Process. This research was planned to take two forms.

First, it would be necessary to identify "gaps" in the Goals Process, of which several were known and it seemed likely that there were probably more. A "gap," it will be remembered from Chapter I, is an "interruption in continuity"; something that needs to be done and has not been, or things that need to be further operationalized and have not been. The identification and prioritization of gaps part of the investigation is the subject of Chapter IV.

The second form this research was to take would be the field testing and development of methodology for the highest prioritized gap resulting from the above procedure. Since the notion of field testing is central to this part of the research, it is appropriate to discuss it at some length.

Field Testing

Metamethodology has as one of its major elements the process of "field testing" (Element VII, A--Thomann, 1972b). The notion of field testing in Metamethodology differs from that ordinarily encountered in "experimental research" and therefore some explanation and justification of the field test in Meta is important at this point.

The basic notion of an initial field test of any given methodology, sub-methodology, or a piece of either is that it ought to occur in the simplest possible situation. This is partially mandated by the scientific principle of parsimony and partially by the logic of Meta itself. Coffing (1972) has gone into considerable discussion of the notion and rationale of parsimony in field testing. The full argument will therefore not be reiterated here but simply an abstract of that argument given.

The purpose of using the simplest possible situation is to be able to observe exactly what happens when that methodology or part thereof is applied. The methodologist wants to observe the occurrence, or non-occurrence, of the intended outcomes of the methodology. A complex field test would introduce too many confounding variables which would cloud the full effect of the "thing" being tested. Thus a simple situation is needed.

Another way to view this is from the perspective set forth by Cronbach and Suppes (1969), namely decision oriented and conclusion oriented research. Given the purpose of the methodology, the former approach is clearly the first needed to be taken. Generalizable, universally valid knowledge is not the purpose of the field testing of a selected goals gap in this investigation. Rather, the purpose is to provide data for the methodologist's decision making needs relative to the effectiveness of the methodology, given the purpose that methodology was to fulfill.

This might simply be phrased as "Given the treatment, i.e., the methodology under consideration, has the problem gone away, or has its purpose been fulfilled." Under simple conditions, clear decisions can be clearly made about this question.

An additional dimension is added when considering field testing within the context of both Meta and decision oriented research, that of criteria referenced testing. The results of the field test should be referred (compared) to predetermined criteria set forth by the methodologist, not to the results of applying some other methodology (norm referenced). If the criteria have been clearly set forth (as they should

have been) the criteria then become the referent. Comparing treatment A to treatment B is norm referenced and is clearly inappropriate to the purposes set forth above for the field test in Meta.

A test of a methodology can be a logical test, i.e., a test of logic. For instance, giving the methodology to another methodologist(s) is a logical test. However, as this method was employed in identifying gaps in the Goals Process, the next appropriate test for this methodology would be an empirical field test. Furthermore, given the context of this investigation the empirical field test should use evaluators to test methodology since in reality that type of person is the kind most likely to utilize the process.

The field test design, then, must take into consideration the notion of parsimony. It must also be the simplest conceivable and available situation. As Coffing (1972) points out, this is a resource allocation problem. If the simplest situation is not readily available, resources should not be consumed waiting for it or searching it out.

Furthermore, this situation has to be the investigator's conception of "simplest conceivable." This is necessary because in doing this piece of decision oriented research, the investigator is the "decision maker." The data he needs has to have "decision maker validity." To have someone else operationalize the fuzzy concept of the "simplest conceivable situation" risks that operationalization not being the same as the decision maker's. To the extent that the two operationalizations do not overlap, inappropriate data would be provided. And to the extent that inappropriate data is provided, the process would be incomplete, inefficient and unfocused. This in turn would cause the purpose of the

field test not to be met, i.e., decisions about redesign of the Goals Process where these decisions are based on data.

Finally, "simplicity" in field testing is also implied by the following: if the methodology is not successful in the "simplest" situation, then it certainly will not be successful in more complex situations and if this should be the case, it is a far more efficient use of resources to test first in the simple situation. Conversely though, Coffing (1972) notes that if the methodology were completely successful in the "simple" situation, it would not be demonstrated that it would be successful under more complex sets of conditions. To be able to generalize to the latter, more tests would need to be conducted. However, the first test done should be the "simplest available."

Therefore, the field testing of this methodology will be undertaken with these considerations in mind: (1) it will be decision oriented, (2) it will be conducted in the simplest available situation, (3) the investigator will be the decision maker, and (4) the design will have decision maker validity.

CHAPTER III

THE GOALS PROCESS

The Goals Process is a very crucial step in the /H Evaluation Methodology. Like the correct determination of the primary decision maker, which is the first process in F/H, the Goals Process is an important element in the methodology for without it, the rest of the methodology could not be optimally implemented.

The Goals Process provides the basis for the selection of variables, and most of the succeeding steps in the F/H methodology follow from it. For example, if the Goals Process is not correctly or accurately applied, then operationalization, one of the processes applied to goals, would be done on the wrong goals, causing the evaluation data later collected to be less complete, less efficient and less focused than it should be. The same incompleteness, inefficiency and lack of focus would occur in the matching of goals to the systems analysis for evaluation, another process applied to the goals. If operationalization occurs for goals not actually held by a decision maker for his enterprise, optimal data gathering instruments could not be developed which would mean that efficient and focused data would not be gathered and this in turn subverts the whole purpose of evaluation, i.e., providing data for decision making. In short, there can be no efficient evaluation without a systematic, reliable goals identification and prioritization process.

Because of recent trends in education, it is important to clarify terminology. For example, it is important to distinguish between the concepts of "goals" and "objectives." This is a crucial distinction

for the evaluator to understand if he is planning to use this methodology. The use of the word "goal" is intentional. The popular catchword in education today is "behavioral" or "instructional" objective. However, this author clearly differentiates between the "goal" concept and the "objective" concept, which is, or should be, a subset of the goal concept.

Goals occur on all levels of specificity and do not have attached to them the rigorous criteria of specificity prescribed for behavioral objectives by Popham and Baker (1970), or Mager (1962). Table I lists some of the possible differences between the two classes of phenomena. Goals embody intents, the intents of the decision maker, not just the verbalized, specific statement of what the decision maker thinks his behavioral objectives are.

Rather than asking the decision maker to write down all his behavioral objectives, as many "traditional" approaches to evaluation would ask, following which the evaluator would then proceed to "measure" their achievement, this methodology calls for a different tack. This different tack is necessary for several reasons. First, the former procedure assumes certain behaviors, skills and knowledges on the part of the decision maker: (1) the ability to write behavioral objectives; (2) the ability to translate the decision maker's purposes or intents into meaningful behavioral objectives; (3) the ability to write objectives embodying all his intents. To assume these skills on the part of any decision maker is both illogical and potentially demaging to the overall evaluative effort. (For a further discussion of this subject, refer to Hutchinson and Benedict, 1970; Benedict, 1970.)

TABLE I

SOME POSSIBLE DIFFERENCES BETWEEN GOALS AND BEHAVIORAL OBJECTIVES

GOALS	BEHAVIORAL OBJECTIVES
1. General, vague, not very specific.	1. Specific behavioral verb.
2. Fuzzy; may overlap with other goals; may be in conflict with other goals.	2. Single specific verb object, excluding possibility of overlap.
3. Embodies real intents	3. Reflects writer's ability to write behavioral objectives.
4. Does not really communicate specifics to others.	4. Communicates very well and specifically to others.
5. May be stated in terms of anybody, including inanimate objects.	5. Stated in terms of the learner.
Examples:	
1. to have individualized instruction	1. The student must be able to correctly solve at least seven simple linear equations within a period of thirty minutes.
2. self-actualization	2. Given a human skeleton, the student must be able to correctly identify by labeling at least 40 of the following bones; there will be no penalty for guessing (list of bones inserted here).
3. autonomous learner	3. The student must be able to spell correctly at least 80% of the words called out to him during an examination period.
4. open classroom	(These are taken from Mager, 1962, pp. 45-50.)

This methodology would approach this topic from a much less threatening and initially less demanding and confusing position. The decision maker is asked what he would like his "enterprise" to accomplish, the word "enterprise" being defined as that entity about which data is to be collected.

This approach, using an interactive relationship between decision maker and evaluator should yield an initial list of "goals." The most noticeable quality of this initial list is that these "goals" are usually vague or nebulous. Differentiated staffing; educate good citizens; graduate responsible Americans: all of these might be typical of the level of specificity of goals at this initial level. Even though they are stated as fuzzy concepts, they embody real intents and aspirations on the part of the decision maker.

It should be pointed out that fuzziness is not "bad." It is "good" in the sense that it serves the purpose of allowing people to operate in the ordinary communication process of the day to day world. People communicate in fuzzy concepts; they dream in terms of fuzzy concepts and they aspire in terms of fuzzy concepts. If these fuzzy concepts are avoided by going immediately to behavioral objectives there is the great risk that the behavioral objectives that are identified will not add up to the full set of the decision maker's aspirations.

What is important, then, is that the elicitation of goals be as complete as possible, whatever they may look like grammatically. It is essential that the evaluation begin with all the goals. Otherwise there is the possibility of missing or omitting what might be some of the most important intents of the decision maker for the project. Beginning with

goals is possible because a methodology does exist for dealing with the fuzzy concepts in goals: the Operationalization process used later in the evaluation methodology.[1]

The foregoing discussion has presented the importance of a Goals Process in evaluation methodology, as well as defining the concept of "goal." The relationship of the Goals Process specifically to the F/H Evaluation Methodology has been set forth in detail in Chapter I where an overview of the whole methodology was presented.

The documentation and development of the Goals Process which has resulted from this investigation has shown that there is not one, but four sets of goals procedures depending upon the nature of the decision maker with whom the evaluator is working. The general purpose of each of the four sets of procedures is the same: to arrive at as complete an approximation as possible of the decision maker's intents for his (their) enterprise. Since each case has this same purpose, the general procedures of each case are parallel.

The differences which arise with each application of the Goals Process are caused by two factors: (1) the nature of the decision maker(s) and (2) the amount of resources available. The nature of the decision maker varies across four categories (thus giving rise to the four sets of procedures within three cases):

Case I: The decision maker is an individual.

Case II: The decision maker is a group of persons who act

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[1]That methodology is the Operationalization of Fuzzy Concepts, developed by Hutchinson and others. Hutchinson and Benedict, 1970; Jones, 1970; Coffing et al., 1971.

as a single decision making body.

Case II, Alternative A: The group size is small enough compared to resources that sampling is not required.

Case II, Alternative B: The group size is too large relative to the available resources and sampling procedures are employed.

Case III: The decision maker is a collection of individual decision makers making individual decisions.

While the steps of the Goals Process are parallel for all four cases, the nature of the decision maker, as described above, necessitates differences among cases. However, cases II-A, II-B and III are actually variations of Case I, which being an individual person is the simplest case.

Because of the parallel nature of the cases, and because the latter three sets of procedures are built upon the concepts and procedures set forth in Case I, it is essential for the practitioner to be familiar with Case I regardless of which set of procedures is appropriate to use for the decision maker(s) with whom he is working. Thus the practitioner (reader) is asked to carefully read Case I before proceeding to any of the other cases.

The Goals Process: A Major Process in the F/H Evaluation Methodology

The purpose of the Goals Process is to arrive at as complete an approximation as possible of the decision maker's intents for the enterprise. Given this purpose, certain major implications exist for the development of the methodology. These major implications resulted in the nine major elements of Case I. These nine elements are listed here and

and will be detailed in the following section of this chapter which deals specifically with Case I.

Elements of the Goals Process:

I. Orientation Element

II. Initial Goal Identification Element

III. Analysis Element

IV. First External Test of Completeness Element

V. Second External Test of Completeness

VI. Presentation of Tests of Completeness Element

VIII. Commitment Element

IX. Prioritization Element

One final note might be made before formally introducing the different goals procedures. In this methodology, there are several recurring concepts providing for recurrent processes. Specifically these are the goal analysis process, the resource determination process, and the test of completeness processes. It is not necessary at this point to detail each of these as they are fully developed later in the text. However, it is necessary to discuss how they will be handled in the text.

The first occurrence of each is presented in Case I. In fact, there are several occurrences of each in that Case. The first time that each one occurs, it will be fully explained, its purpose given, comments made, and other instructions provided to the reader. The next time one of these processes occurs, it will simply be noted that the purpose and comments on each have occurred earlier, citing the place. Any additional comments which might be unique to a later occurrence of a given process will be

made.

For example, Case I, step 2.0[2] provides for performing a goal analysis. Performing another (and different) goal analysis occurs as step 3.3.0 as well as step 4.3. In these latter two instances reference will be made to the first occurrence, with only additional information (if appropriate) being given at the latter two places.

Finally, the terms "the evaluator," "the practitioner," and "the reader" are used interchangeably in this document and are not meant to connote differences in role or function.

Element I: Orientation Element
Process for Determining Which of Several Goals Procedures is Appropriate

0.0 Determine who the first priority decision maker is to be, i.e., the person(s) for whose decision making purposes data is to be collected. If this first priority decision maker has already gone through the goals process, then determine who is the next highest priority decision maker who has not already gone through the goals process and deal with him (them).

0.1 If that decision maker is an individual person who individually makes decisions relative to the enterprise, refer to Case I: Goals Process: Where the Decision Maker is an Individual.

0.2 If that decision maker is a group of persons, determine if that group of persons is a single decision making body who as a group have the authority and responsibility for making decisions and who make those decisions as a group. If it is a single decision making body, then refer to Case II: Goals Process, Identification Procedures, Where the Decision Maker is a Group of Persons who act as a

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[2]Steps are numbered by metric outline form.

Single Decision Making Body.

0.3 If that decision maker is a group which does not act as a single decision making body then the group is a group of individual decision makers who individually make decisions relative to the enterprise. Refer to Case III: Goals Process, Identification Procedures, Where the Group is a Collection of Individual Decision Makers Making Individual Decisions.

The purpose of this element is to direct the evaluator to the proper set of goals procedures, of which there are four as was pointed out earlier. The major prerequisite for using this element is that the enterprise's decision makers have been identified and prioritized. (This would have occurred during that part of the evaluation entitled, Negotiation of the Contract phase. Cf. Gordon, 1972.) This is the meaning of the term "first priority decision maker." The evaluator can only proceed with the Goals Process after this element has been successfully completed.

As can be seen, this element is comprised of one step (0.0) and its three substeps, which are fully expanded below.

0.0 Determine who the first priority decision maker is to be, i.e., the person(s) for whose decision making purposes data is to be collected. If this first priority decision maker has already gone through the goals process, then determine who is the next highest priority decision maker who has not already gone through the goals process and deal with him (them).

The purpose or rationale of this step is to provide the evaluator with the correct decision maker with whom to conduct the evaluation, i.e., a starting point in proceeding with the evaluation.

Because there are four separate sets of goals identification processes the first task the evaluator must perform is to decide which set of goals procedures is the appropriate one for him to use in dealing

with the enterprise under consideration. To accomplish this, a process was developed for choosing one of the particular four cases.

Potentially, there are a great number of decision makers of any given enterprise. Identification of the wrong decision maker could jeopardize the evaluation from the start in that the evaluator would be collecting data for the wrong decision maker or the wrong data for the decision maker, or might be collecting inappropriate data for the in-fact (and possibly as yet unidentified) decision maker. Either of these spells failure in that if data is not provided for decision making in the real sense of the phrase, then the purpose of the evaluation is not being met.

Finally, one prerequisite for this step is to have a prioritized list of decision makers. Specific instructions on how this is done is presented in the earlier part of the evaluation as cited above (Gordon, 1972) and will not therefore be reiterated here.

Step 0.0 has three substeps. As with the drop-down rule in linear programming, the practitioner would read through the first substep. If it is appropriate, given the context (s)he is in, then the substep is executed. If it is not appropriate, then the practitioner would drop down to the next substep. If it were appropriate, it would be executed. If not, the drop down rule is followed, and so on.[3]

0.1	If that decision maker is an individual person who individually makes decisions relative to the enterprise, refer to Case I: Goals Process: Where the Decision Maker is an Individual.

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[3]Regardless of whether 0.2 or 0.3 is appropriate for the practitioner, he is asked to continue reading through Case I and not to go to either Case II or III as these steps would refer him. Information contained in Case I is essential for an understanding of all the other cases.

0.2 If that decision maker is a group of persons, determine if that group of persons is a single decision making body who as a group have the authority and responsibility for making de-decisions and who make those decisions as a group. If it is a single decision making body, then refer to Case II: Goals Process, Identification Procedures, Where the Decision Maker is a Group of Persons who act as a Single Decision Making Body.

0.3 If that decision maker is a group which does not act as a single decision making body then the group is a group of individual decision makers who individually make decisions relative to the enterprise. Refer to Case III: Goals Process, Identification Procedures, Where the Group is a Collection of Individual Decision Makers Making Individual Decisions.

The purpose of each of these three substeps is the same and thus they are grouped together here. They direct the evaluator to the appropriate goals procedure by having the practitioner identify the nature of that decision maker, i.e., singularity-plurality.

Since the four separate sets of procedures of the goals process were developed according to the nature of the decision maker, it is obviously a prerequisite that this nature be identified. Following this, these substeps also serve to direct the evaluator to the corresponding set of procedures.

The following list will help to illustrate different types of decision makers and the corresponding goals Case which would be used:

	Type of Decision Maker	Goals Process Procedures
1.	Superintendent	Case I
2.	School Board, five member	Case II-A
3.	School Board, 30 member	Case II-B

4.	80 member faculty, deciding at faculty meetings about school policy	Case II-B
5.	80 member faculty, making individual decisions about their institutions	Case III
6.	Undergraduate elementary education majors (900)	Case III
7.	A K-1 experimental curriculum staff (four members)	Case II-A
8.	A classroom teacher	Case I
9.	All classroom teachers in a school system (50)	Case II-B if they decide as a group OR Case III if they are making individual decisions
10.	Dean	Case I
11.	All Pupil Personnel Directors in Western Massachusetts	Case III

The Goals Process: Case I, Where the Decision Maker is an Individual

If the evaluator has identified the primary decision maker and furthermore, has determined the nature of that decision maker as being an individual person, then he would have proceeded to this point from

Element I, step 0.1.

The purpose of Case I is to arrive at as complete an approximation as possible of the decision maker's intent for the enterprise under consideration. This purpose implies certain things for the methodology. It implies first that there be a mechanism for ascertaining intents. Second, it implies a need for checking the completeness of these intents. Third, it implies that an "absolute" list of intents is impossible and what is therefore strived for is an "approximation." In a way, this serves as a checking mechanism such that the entire evaluative process will not be spent on goal identification.

It is important that before data collection begin, as many as possible of the goals of the decision maker be gathered or identified. To not have all the goals is to risk not collecting data on some goals, which might result in missing what is most important to the decision maker. That is, it is conceivable that the most important goal(s) is hidden, repressed, disguised, or not verbalized. Also, those goals most easily verbalizable may not be the most important nor as a set be complete. It is because of these factors that "all" the goals need to be gathered and identified.

Element II: Initial Goal Identification Element

1.0 Ask the decision maker to respond to the following stimulus either by writing or tape recording:

> What do you really want (the enterprise) to be and to accomplish? What do you really want (the enterprise) to accomplish for yourself and for others?

The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise," as is appropriate for the given enterprise under consideration.

Having been directed to the appropriate goals case by the Orientation Element, this second element, or the Initial Identification Element, provides for the first interaction between the evaluator and the decision maker in the Goals Process for the purpose of achieving goal identification and prioritization. It has the additional requirement of having secured a definite commitment from the decision maker about his giving a specified amount of time to this procedure. The evaluator should also make certain the decision maker understands the purpose of the evaluation and the purpose of this element in achieving that larger purpose, as well as the time available to complete this element prior to applying it.

Elements usually have steps and substeps but in this case, the single step is one and the same with the element and so it will be discussed below as a step.

1.0 Ask the decision maker to respond to the following stimulus either by writing or tape recording:

> What do you really want (the enterprise) to be and to accomplish? What do you really want (the enterprise) to accomplish for yourself and for others?

The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise," as is appropriate for the given enterprise under consideration.

The purpose of this step is to elicit and record the most immediate, conscious and verbalizable goals, intents and/or aspirations the decision maker has for his enterprise. The evaluator elicits the decision maker's

goals, being careful not to insert into the process his own goals, his own interpretations of the decision maker's goals, nor his own analysis of those goals. This step is done on a one-to-one basis between the evaluator and decision maker. The level of interaction between the two is determined by the decision maker's ability to freely verbalize. He may need cueing or prompting but the evaluator should carefully act only as a facilitator, not an alterego. He may have to insert an "Uh-huh" into a break or an "I see" or an "is there anything else..." repeating the stimulus question. He should be careful at this stage not to offer suggestions of goals to the decision maker. If, however, he sincerely does not understand something given by the decision maker, he should say so and ask for a clearer, or a different, statement, e.g., "I am not sure I understand what you said. Could you say it again?"

A cautionary note should be reiterated here. If the evaluator "forces" a goal on the decision maker which the latter really does not hold, then data collected on that goal will not, and can not, be used for decision making and the evaluation will either be incomplete or fail entirely depending upon the extent to which this occurs.

Goals elicited at this stage will probably be given as concepts, or words, or phrases, or even be stated in poor grammar. They may overlap with one another, or may be in conflict with another. It is important at this point not to be concerned with any of these states. The task is to record exactly the decision maker's terms, words, phrases, etc. Whatever they may look like, to that decision maker they embody his real intents for the enterprise, reflect his actual aspirations for that enterprise. Corrections, "improvements," or changes made by an evaluator

at this point are probably going to distort those intentions.

To give the reader some idea as to what an initial "statement of goals" or "statement of intents" might look like as a result of step 1.0, several examples have been taken from various sources for presentation. The first three are statements given by three separate faculty members of the School of Education, University of Massachusetts, on an initial round of interviewing as part of a larger process to collect the goals of the Faculty of the School. (A full discussion of this is given in the presentation of Case III in this chapter, but the content of those interviews are appropriate as examples here.)

The statements are presented in exactly the same format in which they were originally collected (Benedict, 1970). (These are all goals the individuals hold for the School.)

Example I: Educational Research Professor

To contribute maximally to the self-fulfillment of each and every person with which it is associated.

Example II: Professor of Humanistic Education

To be the most different school of education in the country; be the best school of education in the country; do everything in its power not to end up like every other school of education in the country.

Undergraduate education--invent 10 new ways of getting teachers ready and never come up with a single program.

Example III: Professor of Humanistic Education

To function as a flexible umbrella for educational

innovation and development as possible
flexibility
socially relevant
consistently address the youth and the youth
movement since they are our clients.

These were transcribed from tape and pauses are represented by spaces. In some instances, though, when the thoughts were partially connected or run on together, semi-colons have been used.

This next example is presented here as it was given to the evaluator. The decision maker had typed it himself and no changes have been made in it, except to present only the first half of it for illustrative purposes.

Example IV: Goals for a Pupil Personnel Services Program
School Social Worker

To measure the abilities of children in scholastic difficulty by means of testing and consultation in order to help develop group and individualized programs that will as nearly as possible meet the potentials of such children. To offer counselling to children who feel that they have problems (scholastic, emotional, interpersonal) in order to eliminate or reduce such problems in order that they may function more meaningfully.

This is only half of the statement. However, it continues in the same fashion.

The point of these examples has been to show the reader that the

results of step 1.0 will vary with decision makers. People's intents are likely to be verbalized in almost any fashion as these examples have tried to show. The purpose, to emphasize again, is not to make them "look" nice, but to have the statements embody the real intents of the decision maker for his enterprise.

Element III, Analysis Element

2.0 Perform a goal analysis on the results of 1.0

2.1 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line.

2.2 Eliminate redundant goal statements. A redundant statement is one which contains the exact same words as another statement.

The Analysis Element is performed on the output of step 1.0. It is also used as a substep several other times in the Goals Process and each time it occurs, it has the same purpose: to provide a simple format for handling a multitude of goals and goal statements. The two substeps provide the actual directions for accomplishing this:

2.1 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line.

2.2 Eliminate redundant goal statements. A redundant statement is one which contains the exact same words as another statement.

These two substeps have the same general purpose: to reduce complex, multiple statements of intent into a simple format with which to deal, as well as eliminating redundancy from that list. Basically a goal analysis simplifies the mechanics of dealing with goals. It provides for organizing goal statements into a uniform format.

When goals are elicited in the first step of the process (1.0) it is common to find overlapping goals which the speaker may be unaware of since he is verbalizing freely and may repeat himself. Often several goals might be included in a single sentence by the use of conjunctions, commas, semi-colons and so on. For example, this statement,

...to develop, cost out and test alternative schools

actually contains at least three separate goal intents:

1. To develop alternative schools.
2. To cost out alternative schools.
3. To test alternative schools.

By reducing such multiple statements into their respective components, a goal analysis allows for a uniformity in dealing with them, as well as actually clarifying the intents. It reduces the vagueness of such statements. If for instance the reader were asked, "Do you hold this as a goal for your enterprise," (i.e., the goal on the previous page) and if the answer were "yes," does this mean the reader holds all three components, or only one, or a combination or interaction of two of them, or what? In other words, multiple statements represent multiple stimuli which can cause confusion not only to the person asked to respond to them, but to the person recording them. Not breaking down such statements introduces much confusion and confounding into the Goals Process and therefore the overall evaluation effort.

Another way of conceptualizing the importance of this might be: if the purpose of evaluation is to provide data to decision makers, and if data were to be collected on this particular multiple goal statement, the evaluator would be hard pressed to know which component to provide data

on (assuming it were not possible to present data on the whole statement simultaneously). Furthermore, maybe only one component is really important, or possibly one is more important than the other two. A goal analysis will provide a basis in the evaluation for determining this and thus set the stage for working with it.

The two substeps are easiest to illustrate with actual examples. The following statement is an example of a goal elicited from step 1.0 from a faculty member in a Survey of Goals done at the University of Massachusetts (Benedict, 1970):

> to develop a theory of educational evaluation and to identify the subsequent methodology to carry out educational evaluation to develop and install a training program to develop these methods and skills in people.

There are numerous statements of intent in this "goal statement." Some of these might be:

1. To develop a theory of educational evaluation.
2. To develop a methodology of educational evaluation.
3. To develop a training program to teach this methodology of evaluation.
4. To develop a training program to train people in the methods of an educational evaluation methodology.
5. To develop a training program to teach people the methods of an educational evaluation methodology.
6. To install a training program in educational evaluation. methodology.
7. To develop educational evaluation skills in people.

A complete goal analysis of the given statement will not be done here but the example shows what happens when a goal analysis is done. Trying to deal with the first, multiple goal statement would prove not only complex but confusing, misleading and impossible for data collection. There are at least a dozen different stimuli in such a statement.

Another obvious example of a multiple goal statement is this:

> to prepare educators for instruction, administration and research in elementary, secondary and higher education

This is more obvious in its breakdown:

1. Prepare educators for instruction in elementary education.
2. Prepare educators for instruction in secondary education.
3. Prepare educators for instruction in higher education.
4. Prepare educators for administration in elementary education.
5. Prepare educators for administration in secondary education.
6. Prepare educators for administration in higher education.
7. Prepare educators for research in elementary education.
8. Prepare educators for research in secondary education.
9. Prepare educators for research in higher education.

There are many implications of not performing a goal analysis like this. For instance, it is unlikely that this particular decision maker intended to prepare one type of individual proficient in all these areas; nor is it likely that this decision maker places an equal importance on instruction, administration and research. With a breakdown as above, it will later become possible to order by priorities and to clarify intents. This particular decision maker was certain to have had a notion of priorities of these single goals. Thus it becomes essential to break

out individual statements of intents.

There is another level of doing a goal analysis which needs to be presented: the elimination of redundancy. This is an example of a redundant goal statement, i.e., a goal statement which is exactly like another on the list:

Goal 36: School should be a model of equal opportunity.

Goal 57: School should be a model of equal opportunity.

The exact same words occur in both statements. They are indeed redundant and in step 2.0 one of them would be eliminated from the list of goals by simply crossing it off the list.

An example of similar, but not necessarily redundant goal statements might be:

Goal 36: School should be a model of equal opportunity.

Goal 37: School should model equal opportunity.

At first glance, it might seem that these two statements are the same, with goal 37 being redundant. If the reader thinks that these are redundant then he should re-examine them. The wording is only slightly different in appearance but this slight difference in wording may imply a major difference in the intent of the particular decision maker holding this goal. To eliminate Goal 37, accidentally or carelessly, would eliminate a whole class of behavioral intents with which the decision maker might actually be concerned. A later process would permit the decision maker to eliminate Goal 37 if he considered it to be redundant. In performing this substep, then, be sure any eliminated, redundant goal statement is, in fact, without question redundant.

Once a goal analysis of the product of 1.0 has been done, the

practitioner would proceed with the Goals Process, where the next element encountered would be:

Element IV: First External Test of Completeness

3.0 The evaluator develops alternative lists of goals from selected enterprise documents, identifying the sources from which they come.

3.1 Determine how many resources - time, money, staff - are available to devote to this activity.

3.2 Choose the primary written document which would be a major source of enterprise goals. If this is unknown to the evaluator, ask the decision maker which document the enterprise has produced which would be a major source of goals.

3.3.0 Perform a goal analysis (cf. 2.0) of this selected published enterprise document.

3.3.1 Goals occur throughout such documents and it should not be thought that 3.3.0 applies to just a section of the document that might be labeled "goals" or "objectives."

3.4.0 After completing this goal analysis for this primary document, determine the amount of resources remaining to devote to continuing this activity.

3.4.1 If resources still remain, then examine another major written source of enterprise goals. This second major document need not be solicited from the decision maker but might be chosen by the evaluator or by other enterprise personnel at the discretion of the evaluator.

3.4.2 If going through the primary document (cf. 3.2) produces fewer than (say) ten additional goals, then this

activity is not very useful and the evaluator would not proceed with 3.4.1, namely any other documents.

The overall purpose of this fourth element is to provide a test of completeness for the initial list of goals elicited from the decision maker (1.0) and subjected to a goal analysis (2.0). As pointed out earlier, one of the purposes of the Goals Process is to arrive at as complete a list as possible of decision maker intents. This first test of completeness helps to achieve this purpose.

One of the criteria of evaluation is that the data provided be "complete," and the notion behind a test of completeness stems from this concept of "completeness" in evaluation itself. Completeness in evaluation means that (with the resources available) all the data a decision maker needs to make his decisions is provided to him by the evaluation. To insure this, at each of many decision points throughout the methodology it is necessary to "test the completeness" of many different processes. By doing this throughout the evaluation, rather than at say a terminal point, the evaluation design becomes more complete; data provided to the decision maker will also be more complete.

The thinking behind how a test of completeness works is basically this. A decision maker, in being asked to think of a certain class or set of phenomena, may spend an hour or two doing just that. However, this causes him to have a certain psychological set about those phenomena, or, he becomes "locked into" a certain pattern of thinking. To ask him to keep thinking in this same pattern is not useful for he has probably exhausted the process from that perspective. A test of completeness is meant to jolt him out of that set or pattern by offering or stimulating

the decision maker with a different perspective, a different set of phenomena, to which he may react. After having him get into this new pattern by reacting to a set of phenomena from a different perspective, he would again have a certain psychological set. And, depending upon resources at the various points of the evaluation, he would then be presented with yet another set of phenomena from a different source and so on.

This concept of stimulation by different sets of phenomena becomes clearer in the tests of completeness given here in element four. Remember, to this point the decision maker (in step 1.0, elicitation) has given a statement of his intents or aspirations for his enterprise. He did this with the evaluator and the assumption made now is that in that period of time, the process of doing this was exhausted. That is, he verbally gave <u>all</u> his intents for the enterprise to the evaluator at that point (or <u>all</u> the ones he could). The evaluator would now want to test that list or statement for completeness by offering different goals or intents from different perspectives and this is what the steps and substeps of element four provide.

3.0 The evaluator develops alternative lists of goals from selected enterprise documents, identifying the sources from which they come.

The specific purpose of this, aside from the foregoing discussion, is to provide an alternate way of achieving the purpose of the goals process itself, i.e., arriving at an approximation of <u>all</u> the decision maker's goals. This is accomplished by collecting additional goal statements about the enterprise from a different source than the decision maker. These additional goals, in this situation, are ones

the enterprise has written or published about what it intends to do. (It is possible and is permissible that these written goals may have been written by the decision maker with whom the evaluator is working. The test of completeness works anyway.) These goals will later be presented to the decision maker for him to react to for the purpose of determining if he actually holds these intents for the enterprise.

There is often a discrepancy between what an enterprise says in writing it wants to accomplish, e.g., public relations or public image goals, and what the decision maker actually wants the enterprise to accomplish. This latter factor will in reality govern the way the decision maker acts, the decisions he makes, and therefore the data he needs to make those decisions. Thus a second purpose of this test of completeness is to provide for the screening out of those goals stated by the enterprise personnel but which are not really held for the enterprise.

3.1 Determine how many resources - time, money, staff - are available to devote to this activity.

This is done to insure that resources are realistically assessed periodically in order that they not be over committed at any one step. Resources are always limited. It is necessary not to commit too many resources to the evaluation, but also not to any one or two steps within the evaluation methodology.

For instance, if resources (which include time, staff, and money) are limited in the evaluation as a whole, it may be necessary to eliminate step 3.0 entirely. The notion of limited resource requiring "short cuts" will appear periodically and will also be discussed in

detail later.

Resource determination and allocation occurs at many points in the Goals Process. Each time it occurs, it does so for the same reason, that of realistically determining the scope of a particular step or substep. With many tasks to be done in the evaluation, it is essential that the resources be allocated such that the entire evaluation can be accomplished.

If resources are so scarce that this step of 3.0 is eliminated, then automatically, the practitioner would eliminate step 3.0 through step 6.0, including their respective substeps. After step 2.0, the practitioner would go directly to step 7.0. This would be known as the "shortest goals process" which is discussed fully at the end of the Case I discussion in this chapter.

3.2	Choose the primary written document which would be a major source of enterprise goals. If this is unknown to the evaluator, ask the decision maker which document the enterprise has produced which would be a major source of goals.

This specifically directs the evaluator in completing step 3.0. The directions are fairly obvious but perhaps some examples of "primary written documents" might help to illustrate for the practitioner what sort of documents to look for or solicit. Typically these might be: a curriculum guide; a proposal to a funding agency; a description or a rationale for the enterprise; guidelines set forth for the enterprise; dissemination brochures of the enterprise, etc. In short, any document which is likely to have statements of goals or intents for the enterprise could be employed in this process.

3.3.0 Perform a goal analysis (cf. 2.0) of this selected published enterprise document.

This is a repetition of a recurring procedure within the goals process, namely a goal analysis. (This was discussed in detail when it first occurred in step 2.0 and if the reader feels he does not yet have a solid grasp on this notion, he is referred back to the discussion at 2.0.) Additionally, it might be mentioned, as each new list of goals is developed, this process is performed on it, resulting in a uniform format. This is also necessary since these lists of goals will be later merged. A uniform format simplifies this task.

3.3.1 Goals occur throughout such documents and it should not be thought that 3.3.0 applies to just a section of the document that might be labeled "goals" or "objectives."

The purpose of 3.3.1 is to insure that the evaluator examines the entire document for goal statements. Most enterprise documents as described in step 3.2 have sections dealing specifically with Enterprise "Objectives," or "Goals." It has been found, however, that statements of goals and intents occur throughout such documents, including introductions and prefaces. While goals in these sections are usually fuzzier than in an "objectives" section and usually complex in the sense of there being several goals embedded in one statement, they may be very important and should not be overlooked.

An example will illustrate the point. The following is a page abstracted from the Model Observation Kindergarten Program, Curriculum Guide (1969). It represents the "Objectives" section of that document (p. 5.).

Objectives of Kindergarten Program

Physical
- to increase strength and endurance
- to improve muscular coordination
- to respond rhythmically
- to utilize correct body mechanics in daily activities
- to recognize and experience total relaxation and release from tension
- to control bodily functions
- to identify need for proper food, habits of cleanliness, proper amount of sleep
- to use rules necessary for safety

Emotional
- to establish a positive self-concept
- to establish the following sequential levels of personality development
  a. to develop sense of trust
  b. to develop sense of autonomy
  c. to develop a sense of initiative
- to moderate withdrawal or aggressive tendencies
- to express appropriate affect
- to release emotions in appropriate ways

Social
- to join group activities
- to take turns
- to share
- to play both the role of a leader and of a follower
- to care for materials properly
- to communicate freely with adults and peers
- to accept behavioral limits which must be established in a group situation

Intellectual
- to increase attention span
- to follow directions
- to recall information
- to communicate adequately
- to seek answers to questions--by asking and by testing hypothesis
- to progress through content area objectives which are compatible with ability and developmental level

The following abstraction, however, represents part of a page taken from the section of the guide entitled, "Statement of Philosophy" (pp. 1-3):

> The perceptive kindergarten teacher assists the child in identifying his emotions and provides experiences for helping him express his feelings in personally satisfying and socially acceptable ways. The five-year-old is egocentric--a beginner in social learning. Essential to peer group acceptance is the ability to share in work and play situations. Assistance in recognizing the feelings of others is needed as he emerges as a social being.
>
> Because a realistically positive self-concept is vital to successful functioning in any situation, the kindergartner must find all learning experiences so structured as to minimize failure. Unique contributions of every child are recognized and reinforced.
>
> Natural curiosity so evident in the young child is encouraged by the methodology employed in the kindergarten program. While behavioral limits are identified, the child is provided with multiple opportunities within this framework to move about the classroom, to manipulate materials, to test ideas, to apply concepts.
>
> Discussions, dramatic play, role-playing, choral speaking and free play periods provide many and varied activities for increasing verbal competency.

There is no need to go through a complete goal analysis of this abstract to show how goals and intents are present in sections of documents other than those labeled "Objectives." The following goals or intents were taken from the first paragraph (and this is by no means a complete goal analysis of that paragraph).

1. To assist the child in identifying his emotions.
2. To provide the child experiences for helping him express his feelings in personally satisfying ways.
3. To provide the child experiences for helping him

express his feelings in socially acceptable ways.

4. To be aware that the five-year old is egocentric.

Again, this is not a complete goal analysis of that section and has not even attempted to break out implied goals. It can be seen though that all of these are probably important goals held by the decision makers of this particular enterprise. Yet it will also be noted they do not appear as objectives in that latter section, nor are they necessarily represented by objectives. The decision makers would still operate on these goals; strive toward achieving them; make decisions based on perceptions about them, about their operation and achievement and so on. To ignore or overlook such goals in the Goals Process is to indeed miss an important aspect of the enterprise, of the decision makers' intents, and of the decision maker's needs. It will, in fact, insure that the evaluation will be incomplete.

It is possible that these goals were also not elicited as a result of step 1.0. And yet, since the decision maker does hold them, it is important that they be included in the test of completeness and identified at this stage. It is better for many goals to be identified which the decision maker might reject later in the Goals Process than that many important goals be left uncovered, or forgotten.

The evaluator, then, should go through the chosen document very carefully, attempting to be as complete as is possible.

3.4.0 After completing this goals analysis for this primary document, determine the amount of resources remaining to devote to continuing this activity.

This is done for the same reasons resources were determined and allocated

earlier (substep 3.1). It occurs here as part of a continuing process to insure that resources are assessed periodically and frequently in order that the resources are matched with tasks and not overcommitted at any one point. Abundant resources will allow a more complete job to be done on this alternative list of goals. No resources, or very few resources, will preclude doing this task at all as was pointed out above.

3.4.1 If resources still remain, then examine another major written source of enterprise goals. This second major document need not be solicited from the decision maker but might be chosen by the evaluator or by other enterprise personnel at the discretion of the evaluator.

This substep provides for making the test of completeness as "complete" as possible in and of itself, assuming of course, that resources are available and also, that going through the first document in 3.1 proved to be a useful task, i.e., goals were identified. It would mean also that the test of completeness when later presented to the decision maker would be a more thorough stimulus. Before this step is executed, however, even if resources are abundant, the practitioner should read the next substep!

3.4.2 If going through the primary document (cf. 3.2) produces fewer than (say) ten additional goals, then this activity is not very useful and the evaluator would not proceed with 3.4.1, namely any other documents.

This is to provide direction such that the evaluator will not pursue a fruitless activity even if sufficient resources exist for so doing. This would be an inefficient use of resources. In certain cases, the

documents, for whatever reason, will not yield goal statements, or at the best, very few. In such cases, the evaluator should not spend resources on additional documents or in searching out additional documents.

Element V: Second External Test of Completeness

4.0 The evaluator develops alternative lists of goals by repeating 1.0 for other decision makers of the enterprise, that is, for other people or groups of people in the enterprise who are decision makers but not the primary or most important ones. (This is not done if the evaluator has this material as the result of a prior step). The evaluator identifies the sources unless the source (other decision maker) wishes not to be publicly identified. If so, his list would be used but the source would not be noted as a person in the enterprise rather than by his name, title, rank, etc.

4.1 Determine how many resources - time, money, staff - are available to devote to this activity.

4.2 Choose this other decision maker(s) in the enterprise who is likely to have goals other than the ones the primary decision maker is likely to put down. The primary decision maker may suggest to the evaluator such another decision maker whose goals he is interested in seeing.

4.3 Perform a goal analysis (cf. 2.0) on this other decision maker's goals.

4.4.0 After completing this goals analysis for this other decision maker(s), see how many resources remain to devote to this activity.

4.4.1 If resources still remain, then repeat this process for another decision maker within the enterprise. This second decision maker or group

of decision makers need not be solicited from the decision maker but might be chosen by the evaluator.

4.4.2 An alternative to 4.4.1 would be to develop an alternative goals list from decision makers from a separate but similar enterprise, which enterprise could either be chosen by the decision maker or lacking a desire on his part to do so, by the evaluator.

4.4.3 If going through this process with the first decision maker(s) described in 4.0 produces fewer than (say) 10 additional goals than this activity is not a very useful one and the evaluator would not proceed further than with this particular person(s).

This is the second test of completeness for the list of decision maker's intents. As a test of completeness it performs the same function as the first one, Element IV: Goals from Documents. It does this in this instance by eliciting goals from other enterprise personnel. For example, if the evaluator were working with a Project Director as the first priority decision maker, other project personnel might include: Superintendent, classroom teachers, parents, secretarial support, funding agency, etc. This step can be very fruitful for the first priority decision maker for several reasons: (1) it gives him other goals to react to and consider, i.e., the test of completeness aspect; (2) it allows him to consider information about how other decision makers with whom he is working desire or view the enterprise; (3) any discrepancies discovered would not only act as additional and potent stimuli to the decision maker but could allow him numerous decision points relative to the enterprise, to its personnel and to the goals he himself holds for

that enterprise. Thus these goals of "others" become in fact data for decision making. As such, the product of this step has often not only helped to achieve the purpose of collecting intents but has often helped open up lines of communication within enterprises, an interesting and often useful benefit.

The specific steps and substeps of this element are given below.

4.0 The evaluator develops alternative lists of goals by repeating 1.0 for other decision makers of the enterprise, that is, for other people or groups of people in the enterprise who are decision makers but not the primary or most important ones. (This is not done if the evaluator has this material as the result of a prior step). The evaluator identifies the sources unless the source (other decision maker) wishes not to be publicly identified. If so, his list would be used but the source would be noted as a person in the enterprise rather than by his name, title, rank, etc.

This step provides a more thorough test of completeness for the decision maker. This has the same purpose as that of step 3.0 earlier with the exception that in the latter case, goals were analyzed from documents. Here, they come from other decision makers in the enterprise.

It has already been pointed out that there are potentially many, many, "other decision makers" in any given enterprise. One way of determining which of these others to deal with in this step is to take the next priority decision maker from the prioritized list of decision makers as arrived at in the Negotiation of Contract Phase of the evaluation (cf. Gordon, 1972). The evaluator might choose another decision maker whom he knows has a perspective of the enterprise considerably different from the perspective of the decision maker with whom he is

working. Or the practitioner might ask the decision maker with whom (s)he is working "What other decision makers in (the enterprise) have a different perspective than your own?" This author would make the recommendation to use other identified and prioritized enterprise decision makers before going outside that list. This is a more efficient use of resources since the evaluator will eventually have to get the goals of these other decision makers.

For example, the evaluation is being done of an experimental curriculum in an elementary school. The highest priority decision maker is the principal. The next priority decision maker has been previously determined (from the prioritized list arrived at in the Negotiation of Contract Phase) to be the project director of that experimental curriculum. Other decision makers (who will probably have different perspectives of that enterprise, i.e., the experimental curriculum) might be: (1) the staff implementing it; (2) the funding agency or school board as the case might be: (3) the superintendent; (4) parents of the children taking the curriculum, etc. This is the kind of process the evaluator might go through in choosing this "other" as a test of completeness. He could either go down the prioritized list of decision makers, or else, identify a list of other decision makers with different perspectives and then choose (even randomly if so desired) from that list.

By "...identifies the source..." is simply meant describing who holds these goals, or where the list of goals came from. This is important in two ways: (1) it makes the test of completeness stimuli stronger or more effective by giving the decision maker additional information on the stimuli; and (2) it can, as pointed out earlier, serve as data for decision

making. Mechanically, identifying the source might look like this:

Mr. Jonathan Smythe, Classroom Teacher

Intents for (the enterprise):

1. _____
2. _____
3. _____
.
.
.
N

If, however, the source, in this case Mr. Jonathan Smythe, wished, for whatever reasons, to remain anonymous, then the situation might look like this:

The Intents for (The enterprise) of a Classroom Teacher

1. _____
2. _____
3. _____
N

Or, as the case might be, instead of Classroom Teacher, the term might be An Administrator, A Student, A Parent, etc. Whichever way the process is handled, it is important that the source, either by name or by title, be identified.

This has been an overview of the whole element. The substeps of any element help to achieve the purpose of that element.

4.1 Determine how many resources - time, money, staff - are available to devote to this activity.

This is the recurring resource determination and allocation process. (Refer to step 3.1 for a full discussion if it is needed again at this point.)

4.2 Choose this other decision maker(s) in the enterprise who is likely to have goals other than the ones the primary decision maker is likely to put down. The primary decision maker may suggest to the evaluator such another decision maker whose goals he is interested in seeing.

This substep specifically directs the evaluator in proceeding with accomplishing step 4.0. In addition to the discussion of the specific rationale for this as given in the discussion of the element above, it might additionally be noted that the resources available will partially determine which of the "others" will be picked. For instance, there may not be time to elicit a list of "others" from the decision maker and instead, the evaluator may simply have to pick the next priority (and next available) decision maker.

4.3 Perform a goal analysis (cf. 2.0) on this other decision maker's goals.

This goal analysis is one of the recurring elements of the methodology and has previously been fully described (cf. Case I, step 2.0).

4.4.0 After completing this goals analysis for this other decision maker(s), see how many resources remain to devote to this activity.

Resource identification and allocation was detailed in step 3.1. (It should be pointed out that this is a continuing process throughout, matching remaining resources with task(s) to be done. The actual determination of resources and their allocation may be done prior to, or very early in, the evaluation and at each reoccurrence of this step it

would be a simple cross-checking of resources/tasks rather than a whole new process.)

4.4.1 If resources still remain, then repeat this process for another decision maker within the enterprise. This second decision maker or group of decision makers need not be solicited from the decision maker but might be chosen by the evaluator.

This shares the same purpose as 4.2 above, merely expanding the extent of the stimulus list. It also has the same purpose here as it did the previous time it occurred as a substep (cf. 3.0 and 3.4.1).

4.4.2 An alternative to 4.4.1 would be to develop an alternative goals list from decision makers from a separate but similar enterprise, which enterprise could either be chosen by the decision maker or lacking a desire on his part to do so, by the evaluator.

The same comments made for 4.4.1 apply here. This step would offer another perspective to accomplish the same test of completeness to the decision maker's intents from the first step, 1.0.

4.4.3 If going through this process with the first decision maker(s) described in 4.0 produces fewer than (say) 10 additional goals than this activity is not a very useful one and the evaluator would not proceed further than with this particular person(s).

It is important to caution the evaluator not to squander resources on a fruitless activity, e.g., a test of completeness in this case, even though resources may seem to be abundant. If resources are seemingly abundant, and if those resources are not fully used on the step they were intended for, or for which they were originally allocated, they can be reallocated to other steps or kept in reserve as a guard against the possibility or a resource overrun on some other step.

An example of this being a fruitless activity is the situation where the first step (1.0) is very productive and in combination with the documents test of completeness would have yielded most of the intents. Another example could occur when the primary decision maker is so "in-tune" with his other personnel that they would yield virtually exact same lists of intents as had the decision maker.

Element VI, Presentation of Tests of Completeness

5.0 Ask the primary decision maker(s) to react/respond to the alternative lists of goals resulting from 3.0, documents, and 4.0, other decision makers, by asking him to consider if the goals are ones he has thought of, or holds for his enterprise.

5.1 If the decision maker considers a given goal statement to be one which he holds for the enterprise, it should be added to his list of goals.

5.2 If the decision maker considers the goal statement to be one which he does not hold for the enterprise, it should not be added to his list but simply rejected.

5.3 If the particular goal statement stimulates the decision maker to think of additional goal statements, these should be added to his list at this point.

5.4 If one of these steps causes the decision maker to wish to modify one of the goal statements on his list, then do so.

5.5 These steps should be done for each and every goal statement from the alternative lists developed.

The previous two elements were both external sources for tests of completeness on the decision makers' intents. However, they were carried out by the evaluator in the absence of, or without the interaction of,

the decision maker. This element provides for the actual presentation of the stimulus materials from the prior two elements to the decision maker. This element includes several substeps for dealing with the decision maker's reactions to the stimulus materials.

It should be reiterated here that tests of completeness are very important. They insure that a decision maker does not become too locked into a single thought pattern and thus overlook important intents that he has. All of this insures that the evaluation will be based on all the decision maker's intents. (The purpose of the Goals Process, it will be remembered, is to arrive at as complete an approximation as possible of decision maker intents by using a variety of stimuli. If a decision maker is simply asked, at one point in time, for his goals, it is possible, and probable, that he might forget some, overlook some, and so on.) Hidden agendas, personal covert intents, "secret" aims: it is important that as many of these as possible, and hopefully "all of them" be identified for inclusion in the pool of goals/intents.

5.0	Ask the primary decision maker to react/ respond to the alternative lists of goals resulting from 3.0, documents, and 4.0, other decision makers, by asking him to consider if the goals are ones he has thought of, or holds for his enterprise.

This directs the evaluator in proceeding with the tests of completeness stimulus list. The decision maker should be told the purpose of this step and the sources of the statements or he is likely to be confused, and possibly frustrated. As this is an important step, the evaluator should tactfully explain what he is going to do and why.

Also the decision maker is to react/respond to <u>every</u> goal on the list. If he does, his responses should fall into one or more of four

possible categories and these comprise the substeps of this element. In terms of directing the decision maker, the evaluator might simply point out the possibilities available (i.e., the options in the substeps below) and then verbally go over the goals list, goal by goal, making sure that those goals held for the enterprise are listed and labeled. The evaluator might act as a clerk reading off one goal, getting a reaction, and then making the appropriate marks and remarks next to that goal on the list and then going on to the next goal, etc. Those goals not held are crossed off the list, etc. Or, the evaluator could hand a typed list of the goals to the decision maker, give him the instructions and then let the decision maker mechanically handle this step. Either way is permissible.

5.1 If the decision maker considers a given goal statement to be one which he holds for the enterprise, it should be added to his list of goals.

Substep 5.1 serves to inform the evaluator of what he does if the decision maker responds positively. [It should be pointed out that goals are not added to the list of goals if they are already on it. That is, "his list of goals" refers to the list resulting from 1.0 and 2.0. If the decision maker now comes across a goal he holds and it is already on the list, it is <u>not</u> duplicated again by placing it on the list.]

5.2 If the decision maker considers the goal statement to be one which he does not hold for the enterprise, it should not be added to his list but simply rejected.

This deals with the evaluator's response to a negative response in 5.0. When a goal is "rejected" the evaluator might simply cross it off the list. This will avoid possible confusion later.

5.3 If the particular goal statement stimulates the decision maker to think of additional goal statements, these should be added to his list at this point.

This substep allows for other than simply positive and negative reactions from the decision maker by insuring that the evaluator be prepared to handle various possible reactions from the decision maker. It is quite possible, and in fact it often happens that, a particular goal will not be relevant to a decision maker but that it will stimulate him to think of some other goal(s) which, for whatever reason, he had not thought of. Such "newly" thought of goals should be added to the list of goals as they occur so they won't be forgotten.

5.4 If one of these steps causes the decision maker to wish to modify one of the goal statements on his list, then do so.

This step points out that once a goal has been listed, it is not "sacred." This step insures that all goal statements a decision maker holds for his enterprise truly reflect his intents. If it is necessary to modify statements once they have been elicited, then it should be done.

5.5 These steps should be done for each and every goal statement from the alternative lists developed.

The decision maker should be presented with, and should then react to, every goal statement on the list presented to him. If the decision maker should question the process, the evaluator should repeat his explanation as he had done at the beginning of this step. It is important to complete this step before moving on to the next process.

Element VII: Activities Test of Completeness

6.0 Perform the Activities Test of Completeness for Goals.

6.1 The decision maker is asked to make a list of activities, i.e., things that he does, that the enterprise does, during the course of the on-going enterprise.

6.2 After making up such a list, for each activity contained on it, the decision maker asks himself the question: why do I (we, the enterprise,) do that?

6.3 The decision maker then relates each reason resulting from 6.2 above to a goal or goal statements resulting from the first five steps of the identification process, so it results in a complete cross-check of what goals relate to what activities and what activities relate to what goals on their respective lists.

6.3.1 For each and every reason that does not relate to at least one goal, the evaluator points out the discrepancy to the decision maker. The evaluator then might do two things: (a) ask the decision maker whether in fact he does have a goal for the activity and if he does, add it to the list; or,

(b) ask the decision maker if that activity is still an activity he wishes to pursue.

6.3.2 For each and every goal on the goals list for which no activities are related, the evaluator points out this discrepancy to the decision maker. The evaluator again does two things: (a) ask the decision maker if he does indeed have activities he (the enterprise) is doing and if so, add these to the activities list, or (b) if he does not have any activities, ask if this is not then a goal he holds and if it is, add it to the goals list.

This element is the first, last and only "internal" test of completeness. In the previous two tests of completeness--"documents" and "others"--external stimuli were gathered by the evaluator apart from the decision maker and then brought back to the decision maker for his consideration.

This element provides for a test of completeness wherein the decision maker supplies his own stimuli. That is, the decision maker is forced to take a "different" perspective than the one from which he has been operating. The evaluator directs the decision maker to perform certain tasks with the result being that the decision maker supplies his own, "internal" test of completeness.

6.0 Perform the Activities Test of Completeness for Goals.

This sixth step calls for the last test of completeness to the goals list. As such it shares the same function and purpose as the other tests of completeness (cf. 3.0 and 4.0).

6.1 The decision maker is asked to make a list of activities, i.e., things that he does, that the enterprise does, during the course of the on-going enterprise.

The evaluator is instructed to direct the decision maker to begin this process. Depending upon resources, the evaluator will probably give a limit to the number of activities the decision maker is asked to list, e.g., 10, 25 and so on.

6.2 After making up such a list, for each activity contained on it, the decision maker asks himself the question: why do I (we, the enterprise,) do that?

Substep 6.2 provides continuing instructions to the evaluator for his interaction with the decision maker. The evaluator would initiate this

procedure by asking the decision maker to look at the first activity that had been written down and then ask the decision maker, "Why do you (the enterprise) do that?" or say to the decision maker, "Ask yourself, 'Why do I do that,' or 'Why is that done.'" The evaluator may ask that this question be answered verbally and then either the evaluator would write it down, or, the decision maker would write it down. Either procedure may be used.

Mechanically it could be handled in several ways:

1. On the blackboard, the activities are listed; the first activity is read, and a reason elicited for it; as this is done for each activity and as each reason is given, that reason is written next to the activity.
2. The same process is done using an overhead projector instead of the blackboard.
3. The evaluator acts as a clerk by reading off one activity at a time, eliciting a reason and writing it down.
4. The evaluator instructs the decision maker to record at least one justification next to each activity which has either been written or typed on a sheet, divided in two columns, one where the activity is given and the other the reason.

Each activity should have at least one reason given for it. If an activity has several reasons, these can be listed, but it should have at least one.

Perhaps this could best be illustrated by the use of an example. Below is a list of activities matched with the reasons "why" for those activities. These are an actual list of activities and reasons as presented in Hodson and Watts, (1971).

	Activity	Reason Why
1.	Use of choice time	To develop the ability to make rational choices and stick with them.
2.	Use of Peabody Language Kit	To develop better speech and language patterns.
3.	Use of snack time	Learning in: cooperation, manners, food preparation, role playing, about food itself, where it comes from.
4.	Use of walking beam	To develop gross motor activities
5.	Use of circle games	For body realization, visual and auditory skills.

These few examples will suffice to explain the process involved in this step. In reality, a list of activities would probably be much longer than this since using only five activities does not provide a very thorough test of completeness. Ordinarily, the list of activities would range in length between 10 and 30 statements.

6.3 The decision maker then relates each reason resulting from 6.2 above to a goal or goal statements resulting from the first five steps of the identification process, so it results in a complete cross-check of what goals relate to what activities and what activities relate to what goals on their respective lists.

Again, the purpose is for continuing with the test of completeness. Mechanically this is accomplished as follows. Design a matrix (Stetz,

1972). This might have been previously done by the evaluator who would now give the matrix to the decision maker. The matrix might be on a transparency for projection and the decision maker could verbally fill it in, with the evaluator physically filling in the cells. A blackboard could accomplish the same purpose. Whichever mechanism is used, the purpose is still the same: to result "...in a complete crosscheck of what goals relate to what activities and what activities relate to what goals," thereby seeing if any goals have not been accounted for and/or if any activities relate to no goals. Both of these, in turn, become important data for decision making. Given the matrix outline, on the vertical axis list the goals resulting from step 5.0. On the horizontal, list the activities from step 6.0. Read down the goals list. For the first goal, follow the horizontal row across until you come to a cell under an activity which is related to that goal. There may be several appropriate cells and if so, place a (✓) or an (x) in each. Do the same for each goal.

Next, proceed left to right on the activities axis. Follow down the column under each activity, placing an (x) or (✓) in the cell(s) corresponding to a goal for that activity. Do this for all activities. Each goal should be related to at least one activity. Each activity should be related to at least one goal. This can be determined instantly by looking at the matrix (cf. Goals-Activities Matrix, next page).

6.3.1 For each and every reason that does not relate to at least one goal, the evaluator points out the discrepancy to the decision maker. The evaluator then might do two things: (a) ask the decision maker whether in fact he does have a goal for the activity and if he does, add it to the list; or,

TABLE II

A GOALS-ACTIVITIES MATCHING MATRIX

(After Stetz, 1972)

Examples taken from the First Chance Evaluation Report for 1970-1971 (Hodson and Watts) (June, 1971)

PRIORITIZED GOALS \ Activities	1. choice time	2. Peabody kit	3. snack time	4. gross motor	5. creative act.	6. listening time	7. circle games	8. k act's	9. help time	10. early morning	11. group act's	12. readiness	13. perceptual	14. fun	15. creative control	16. phys. therapy	17. inc. learn ab.	18. reinforcement	19. daily writeup	20. staff planning	21. par'l visits	22. consultants	23. advisory board	24. testing	25. admin. staff	26. outreach act's	27. monthly sum. eval's	28. screening outsiders
1. provide diagnostic education for handicapped children		X	X																	X				X				
2. prepare the children for their next learning experience hopefully public school	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
3. children develop and overcome problems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
4. enable parents to understand and help their children				X																X				X				
5. assist in cooperation of helping of services in community																					X	X			X			X
6. make community aware of the nature of needs of handicapped																				X		X			X			X
7. begin working with children early																							X		X			X
8. try to prevent labels and stigmas being attached to children																				X			X		X			
9. correct and improve program as we go along									X									X	X	X	X	X	X			X	X	X
10. provide a model for prescriptive preschool education																		X	X			X			X			

(These are not complete lists of goals and activities. They are selected here for illustrative purposes.)

(b) ask the decision maker if that activity is still an activity he wishes to pursue.

This is to bring to completion this test of completeness by either having the decision maker add goals to the goals list, if that is appropriate, or ask himself about the worth of each activity for which no goal has been related.

It should be noted that the evaluator does not do several things:

1. He does not say Goal "X" is missing.
2. He does not say Activity "Y" is superfluous, drop it.
3. He does not say you should add activity "Z" to fill a gap.

In other words, he does not make decisions for the decision maker nor does he supply (interpretively and/or subjectively) the missing links. He simply points out the discrepancy--if any--to the decision maker and asks the one or two simple questions as posed in the substep above.

6.3.2 For each and every goal on the goals list for which no activities are related, the evaluator points out this discrepancy to the decision maker. The evaluator again does two things: (a) ask the decision maker if he does indeed have activities he (the enterprise) is doing and if so, add these to the activities list, or (b) if he does not have any activities, ask if this is not then a goal he holds and if it is, add it to the goals list.

This is the obverse of step 6.3.1 and so the same purpose and remarks made about that latter step apply here also.

Element VIII: The Commitment Element

7.0 The decision maker, one last time, goes through the entire goals list from steps 1.0 through 5.0 as amended or modified by the test of completeness, 6.0, and for each and every goal statement on that

list, he seriously reconsiders it and commits himself before proceeding with the data collection on goals.

7.1 If he still holds the goal in the form in which it is written, nothing more is done to it at this point.

7.2 If he no longer holds a given goal for the enterprise, it is deleted.

7.3 If he still holds a goal for the enterprise but feels the wording or intent should be modified, then make those modifications as he feels is appropriate.

7.4 If he thinks of any goals that are not included on the list, add them.

Element VIII is the Commitment Element. It is at this point, after the evaluator is reasonably certain that the set of goals has been approximated as closely as possible, that the decision maker, publicly and overtly, commits himself to the goals he holds for his enterprise. He does this for each goal on the goals list.

The term "publicly" as used here connotes that the decision maker makes a commitment in front of someone, e.g., the evaluator, and does not just go through a mental process. It does not necessarily mean "verbally" since this commitment could be made in writing, or by checking the various held goals. It does mean though that the decision maker can thereafter be held accountable for holding the goals to which he commits himself at this point.

The purpose of evaluation again, is to provide data for decision making. This implies that data provided must be used. For this to occur, the decision maker must need the data and want the data. To insure this in the Goals Process the decision maker must commit himself fully to those intents he has said he holds for the enterprise. This will (help

to) insure that the data is not later gathered on goals that the decision maker does not in fact hold.

7.0 The decision maker, one last time, goes through the entire goals list from steps 1.0 through 5.0 as amended or modified by the test of completeness, 6.0, and for each and every goal statement on that list, he seriously reconsiders it and commits himself before proceeding with the data collection on goals.

To publicly have the decision maker commit himself to each goal he has said previously he holds is done here. Again, this is done to avoid expending resources on collecting data on a goal (or goals) the decision maker does not actually hold. To do so would mean collecting data which would not be used and this as has been discussed, subverts the whole purpose of the methodology.

7.1 If he still holds the goal in the form in which it is written, nothing more is done to it at this point.

This prevents the evaluator from "losing" goals or intents. It is suggested that mechanically this could be handled by placing a (*V*) mark next to each goal publicly chosen so as not to lose it later.

7.2 If he no longer holds a given goal for the enterprise, it is deleted.

This excludes from future data collection those goals not seriously held by the decision maker. Mechanically, it is crossed out. It should be left legible, though, and stored or filed. It might be needed some other time, e.g., as a test of completeness with other project personnel, as backup information, and so on.

7.3 If he still holds a goal for the enterprise but feels the wording or intent should be

modified, then make those modifications as he feels is appropriate.

This shares the same purpose as step 5.4 earlier in Case I. (Refer to the latter if it is needed.) This is the last opportunity there will be to insure that all the goals have been identified and that they truly reflect the decision maker's intents.

7.4 If he thinks of any goals that are not included on the list, add them.

Again, the reader should refer back to the comments made in 5.4 earlier. At this point in the process, this is not very likely to happen. But if it should, the methodology provides for it in this step.

Element IX: Prioritization Element

8.0 The decision maker now prioritizes his list of goals resulting from steps 1.0 through 7.0, the goals identification and test of completeness procedures. He does this by choosing kinds of prioritization criteria which have been suggested to him by the evaluator or ways of prioritizing that he suggests as alternatives to those presented by the evaluator.

8.1 Prioritization on the basis of a Preference/Importance Criteria. If the decision maker chooses this criteria, then:

The decision maker rank orders the goals in terms of the goals most important to him, assigning a rank of 1 to the goal most important to him, a rank of 2 to the second most important goal to him and so on.

8.2 Prioritization on the basis of a Chronological Criteria. If the decision maker chooses this criteria, then:

The decision maker rank orders the goals in order of their probability of failing, assigning a rank of 1

to the goal with the highest probability of failing, a rank of 2 to the goal with the next highest probability of failing and so on.

8.4 If the decision maker has chosen only one of these criteria of prioritizing or still another of his own suggestion, the prioritization is completed. If, however, he has chosen more than one set of Criteria, then there must be a way of arriving at a final prioritization list. That is, the criteria, if more than one, need to be completed.

8.4.1 The decision maker simply picks the first ranked goal off the criteria which he now chooses as more important than the other(s).

8.4.2 Prioritization is done on the basis of adding together rankings on the different criteria.

The decision maker orders the goals lists as in 8.1, 8.2, 8.3 or any other order he may have used. Each goal will have received more than one rank if more than one ranking criteria was used. Those ranks are then added together and the one receiving the lowest total is assigned a rank of 1, the goal with the next lowest total receives a rank of 2 and so on.

In the event of tied ranks, i.e., if more than one goal receives the same rank number, the decision maker is asked to decide which of the ranking criteria used he considers to be the most important. The tie is broken then on the basis of the tied one with the highest rank on the most important criteria.

8.5 The decision maker is asked to examine the final prioritized list arrived at through this prioritization process, 8.0 through 8.4 and to decide if this list represents a reasonable order in which to proceed, i.e., operationalization. If he responds positively, the evaluator proceeds with

operationalization. If he responds negatively, the prioritization procedure is repeated. (That is, the decision maker is allowed at this point to recycle if he feels the result of 8.0 is unsatisfactory).

This is the last major element of the Goals Process, Case I. It provides for not only bringing the Goals Process to an end but also, a procedure for continuing with the evaluation. Once this element has been completed, the evaluator would proceed with either of two processes: the Parts Process or the Operationalization of Fuzzy Concepts Process. Which of these two is chosen is not governed by the Goals Process and therefore shall not be discussed here. However, a completion of the Prioritization yields a plan or outline for continuing with the evaluation.

8.0 The decision maker now prioritizes his list of goals resulting from steps 1.0 through 7.0, the goals identification and test of completeness procedures. He does this by choosing kinds of prioritization criteria which have been suggested to him by the evaluator or ways of prioritizing that he suggests as alternatives to those presented by the evaluator.

This step initiates the prioritization process on the product of the goals identification and tests of completeness procedures. Steps 1.0 through 7.0 may have yielded anywhere from one to a thousand or more goals. Both examples are probably extremes but most likely there will be twenty or thirty major goals resulting. It is impossible physically (and financially) to proceed with an evaluation on twenty or thirty fronts at the same time. It is necessary to proceed at one point, or on one front. This is the purpose of the Prioritization Element. It systematically provides for the ordering of the decision maker's goals

such that the evaluator will know how to proceed.

It should also be noted that resources are once again inspected and carefully planned. Conceivably each step could expand such that each and every step could consume all the project resources. The evaluator must be careful that this not happen.

8.1 Prioritization on the basis of a Preference/ Importance Criteria. If the decision maker chooses this criteria, then:

> The decision maker rank orders the goals in terms of the goals most important to him, assigning a rank of 1 to the goal most important to him, a rank of 2 to the second most important goal to him and so on.

This substep provides one possible criteria for prioritizing goals, as well as the instructions for carrying it out. This is only one possibility of ordering. It is not the only one. Just because it comes first in this list it should not be thought that it is the best one. However, it is a logical way of ordering goals and it is offered to the decision maker.

It should also be added that before the evaluator and decision maker perform this step, the evaluator should discuss the purpose of prioritizing. He should then go over all the options of 8.0, i.e., all its substeps, and should then determine from the decision maker how he (the decision maker) wants to proceed. Only then should prioritization begin.

8.2 Prioritization on the basis of a Chronological Criteria. If the decision maker chooses this criteria, then:

> The decision maker rank orders the goals in terms of their order of occurrence in time, assigning a rank of 1 to the goal which will occur first

in time, a rank of 2 to the goal occurring next in time after 1 and so on.

8.3 Prioritization on the basis of a Cost/Risk Criteria. If the decision maker chooses this Criteria, then:

The decision maker rank orders the goals in order of their probability of failing, assigning a rank of 1 to the goal with the highest probability of failing and so on.

Both of these substeps share the same purpose and rationale as 8.1 above.

8.4 If the decision maker has chosen only one of these criteria of prioritizing or still another of his own suggestion, the prioritization is completed. If, however, he has chosen more than one set of Criteria, then there must be a way of arriving at a final prioritization list. That is, the criteria, if more than one, need to be completed.

This substep has a double purpose: (1) to determine if the prioritization is complete, in which case the Goals Process is completed and the evaluator would proceed with the evaluation; or (2) to direct the evaluator in how to complete the prioritization if it is not complete by warning him that if more than one prioritization criteria has been used, the prioritization is <u>not</u> complete, and he would proceed to:

8.4.1 The decision maker simply picks the first ranked goal off the criteria which he now chooses as more important than the other(s).

This is done to bring to completion prioritization if it has not already occurred in 8.4. The evaluator would simply ask the decision maker to decide which of all the criteria used is the most important to him (the decision maker). The first goal ranked on that list then becomes the first goal the evaluator will deal with.

In terms of deciding which goal to deal with next, i.e., the second goal, the evaluator could pick the first goal off the next most important prioritized list and alternate back and forth.

8.4.2 Prioritization is done on the basis of adding together rankings on the different criteria.

The decision maker orders the goals lists as in 8.1, 8.2, 8.3 or any other order he may have used. Each Goal will have received more than one rank if more than one ranking criteria was used. Those ranks are then added together and the one receiving the lowest total is assigned a rank of 1, the goal with the next lowest total receives a rank of 2 and so on.

In the event of tied ranks, i.e., if more than one goal receives the same rank number, the decision maker is asked to decide which of the ranking criteria used he considers to be the most important. The tie is broken then on the basis of the tied one with the highest rank on the most important criteria.

This is to complete prioritization if more than one prioritizing criteria was used in 8.0, and if 8.4.1 was not a satisfactory (to the decision maker) way of operating. To detail this step, it is best to illustrate it by a schematic diagram.

Imagine that all three criteria were used and that eight goals were prioritized three times, once for each criteria. Take those three prioritized lists and put them side by side.

Goals	Rank	List I: Importance	List II: Chronological	List III: Risk
A	1	A	D	B
B	2	D	B	A
C	3	C	C	C
D	4	F	A	D
E	5	B	F	E
F	6	E	E	F
G	7	H	G	G
H	8	G	H	H

Now, each goal has received three different ranks. Assigning each rank a number of 1 to 8, each goal has received three numbers. Simply add these numbers across and total them for the goals as follows:

Goal	I		II		III		Total	New Ranks
A	1	+	4	+	2	=	7	1
B	5	+	2	+	1	=	8	2
C	3	+	3	+	3	=	9	3
D	2	+	1	+	4	=	8	2
E	6	+	6	+	5	=	17	5
F	4	+	5	+	6	=	15	4
G	8	+	7	+	7	=	22	6
H	7	+	8	+	8	=	23	7

Re-rank the entire goals list on the basis of their added weights, (cf. New Ranks column above), the goal with the lowest total receiving a rank of 1 and so on.

Notice there are two #2 ranks. To break this tie, if the evaluator wants to (and/or if limited resources mandate it), the evaluator would ask the decision maker which criterion is most important to him. For example, imagine the decision maker chooses the Importance List (I). Look at the Importance List and determine which of the tied goals--Goal B and D in this case--has the highest rank on the list. It can be seen that D ranks #2 and B, #5. So, Goal D would become the second goal with which to deal, Goal B the third, and the tie is broken.

As a result of either 8.4.1 or 8.4.2, all of the goals are ordered in a systematic fashion, beginning with #1 and proceeding through the last.

8.5 The decision maker is asked to examine the final prioritized list arrived at through this prioritization process, 8.0 through 8.4 and to decide if this list represents a reasonable order in which to proceed, i.e., operationalization. If he responds positively, the evaluator proceeds with operationalization. If he responds negatively, the prioritization

procedure is repeated. (That is, the decision maker is allowed at this point to recycle if he feels the result of 8.0 is unsatisfactory).

This last substep is done to secure a final approval (commitment) for the prioritized list. Securing a commitment has the same function here as it did in step 7.0 and those remarks also apply here. This is important as this prioritized list will determine the order in which the rest of the evaluation process is conducted and also, the order in which data will later be collected.

It is unlikely that all of 8.0 would have to be repeated at this point. The decision maker has been involved constantly in the ordering process. Most likely any dissatisfaction which might occur in 8.5, and there would probably be little if any, could be allayed or corrected by minor adjustments to the list.

If however it becomes obvious that there is a major dissatisfaction, for whatever motivation or reasons, 8.0 can be recycled completely. This should be done if it is appropriate. (An example of this could be that for some reason, there is a long time delay between the first part of the Goals Process and this last part of the Goals Process; or between the first part of prioritization and the last part.)

This has been a detailed description of the Goals Process, Case I, where the decision maker is an individual. It has been thorough and complete. The practitioner is to be reminded that resources will seldom if ever allow for such a "complete" Goals Process application in the sense that each step is done and done "completely" as presented here. Limited resources imply a limited Goals Process application. This methodology has been designed for all degrees of application from the most skeletal

to the most detailed as presented here.

The Shortest Goals Process

The shortest Goals Process in the face of extremely limited resources is steps 1.0, 2.0, 7.0 and 8.0 with only one option on 8.5. This is the minimum number of steps that can result in the Goals Process being completed. However, there is a shorter process in terms of time, namely going through each of these steps but placing a time limit on each one, e.g., one hour or one-half hour or whatever is appropriate given the resources available.

Even this short process, though, is highly systematic and very productive and it should not be thought that because it is "short," it is insufficient to meet the purpose. It can accomplish the purpose very well. It was never intended that the complete, long process was the only and the best process. Modifications to it, in the form of shortening, will be common.

The Goals Process: Case II, Where the Decision Maker is a Group of Individuals Acting As A Decision Making Body

In practice, the evaluator (and the reader in this situation) would not have just read through a complete delineation of Case I, i.e., the first part of this chapter. He would simply have proceeded with the Goals Process for Case II where he would have been directed by the Orientation Element (I) of the Process. However, it has been pointed out that Cases II and III are in fact variations of Case I. This implies several things for this paper, for the reader of this paper, and for the practitioner as well.

Because of the parallel aspects of the Cases and because of the

dependence of Cases II and III on Case I for their conceptual bases, purposes, procedures and so on, it is necessary that in reality, the practitioner be thoroughly familiar with all aspects of Case I: purposes, practices, concepts, and rationales; and methods of application and implementation. This requirement is set forth as a necessary prerequisite, a mandatory, minimal level of entering behavior for the reader of Case II and for the practitioner in the field. Only if this is met, will the explanation of Cases II and III be meaningful and will the practitioner be able to understand and implement Cases II and III in practice.

Therefore, in order to meet the performance criteria set forth above, if the reader or practitioner has not already done so, he is referred back to the beginning of this chapter and asked to read it carefully and thoroughly. This is not a whimsical request but is necessitated for two reasons which will be reiterated here.

1. Many of the procedures of both II and III either duplicate or parallel steps in I and these reoccurrences will not be discussed again in this section. Therefore in order for the reader to fully understand these parallels and reoccurrences, he will need to refer back to Case I and being already familiar with it will enhance the learning process.
2. Many of the concepts used in Case II are from the first Case where they are fully explored and detailed. Therefore in order to fully understand what follows, it behooves the reader and practitioner to spend some time studying Case I.

The following discussion then will center primarily on those <u>differences</u> between the cases and will only nominally refer to their commonalities.

The purpose of Case II, as was true of the first Case, is to arrive at an approximation of the decision maker's intents, which is as complete as possible, for the enterprise under consideration. Before reaching Case II, though, the person performing the goals process would have gone through the Orientation Element (step 0.0) where the practitioner would have been directed to this point in the Goals Process by substep 0.2:

0.2	If that decision maker is a group of persons, determine if that group of persons is a single decision making body who as a group have the authority and responsibility for making decisions and who make those decisions as a group. If it is a single decision making body, then refer to Case II: Goals Process, Identification Procedures, Where the Decision Maker is a Group of Persons who act as a Single Decision Making Body.

This substep is part of Element I of the Goals Process and not just Element I of Case I. Thus II and III share to a degree the same Orientation Element.

However, there are additional orientation procedures involved in the first Element of Case II as can be seen by the first three steps of it, below:

1.0	Determine the amount of resources - time, money, staff - which are available to devote to this activity.
2.0	Determine if the group size is small enough relative to the amount of resources available (1.0) that the evaluator can deal with each member individually and where, therefore, sampling is not necessary. If it is indeed small enough, refer to Case II-A: Where the Group Size is Small Enough Compared to the Resources that Sampling is not Required.
3.0	If the group size is too large relative to the amount of resources available (1.0) and the evaluator must therefore employ some

sampling procedures, refer to Case II-B: Where the Group Size is Too Large for Available Resources and Sampling is Employed.

These steps are part of Element I, Case II. As such they share the same purpose as Element I, Case I: to direct the evaluator to the proper goals procedures. The same prerequisites are needed here as in Case I (and the reader is referred back to that discussion).

It can be seen from this element that Case II is actually comprised of two subsets of procedures which are necessitated by differences in the nature of the decision makers: one for dealing with a relatively "small" group, the other for a relatively "large" group. These are hereafter referred to as Alternative Sets of Procedures, A and B of Case II (or simply II-A and II-B).

1.0 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

The rationale and purpose of such a step has been well detailed previously (Case I, 3.0). In this situation, though, it takes on an additional implication, namely, that the ability of the evaluator to determine and then implement either Set A or Set B of the procedures is dependent upon the scope of the resources. As resources determine the scope of the evaluation itself, they also, in this instance, determine which procedures that evaluation will employ.

To determine resources, a procedure a la Gordon (1972) is suggested to the practitioner. Experience in dealing with resources in evaluation will allow the evaluator to improvise his own personal method but Gordon's procedures work well.

Having identified enterprise resources available for this process,

the evaluator would need to decide which alternative sets of procedures to use:

2.0	Determine if the group size is small enough relative to the amount of resources available (1.0) that the evaluator can deal with each member individually and where, therefore, sampling is not necessary. If it is indeed small enough, refer to Case II-A: Where the Group Size is Small Enough Compared to the Resources that Sampling is not Required.

The purpose of this step is obvious: to direct the evaluator to Alternative A if it were appropriate. There is no fully operationalized rule governing the fuzzy concept "small enough relative to the amount of resources available." Ordinarily, though, one can be safe in assuming that if the group begins to exceed roughly five members it is no longer "small" given the purpose and procedures involved here, and certainly anything larger than 10 is "large." (The exact number varies according to the scope of the evaluation. Some information on this would be available from prior completion of the Negotiation of the Contract Phase, Gordon, 1972.)

The number also varies according to the ability of the staff of the evaluation to interact on an individual basis with the decision makers of the enterprise. For instance, II-A, step 2.0 states "...ask each member..." If there is only one evaluator, he has to be able, and have the resources, to do this. Thus, the figure three to five or so arises. If there are several staff with other resources available, then this number might increase from five to seven, or 10. Again, resources like time and skills can influence this to the extent that there may be several staff and the "small group" may still be only two or three. In short, then, a whole

set of interdependent and interactive variables affect "small" and "large" so much that even figures like five to 10 can be grossly misleading and should only be viewed with the utmost care. They are not absolute, nor inflexible.

If it is determined that the group is indeed "small enough" the evaluator would proceed to Case II, Alternative Set of Procedures A. (The reader is referred back to Case I where a list is presented giving examples of when II-A would be used.)

If, however, it is decided the group is not "small enough," then following the drop down rule, this next step would be encountered.

3.0 If the group size is too large relative to the amount of resources available (1.0) and the evaluator must therefore employ some sampling procedures, refer to Case II-B: Where the Group Size is Too Large for Available Resources and Sampling is Employed.

and the evaluator would proceed to option B, where, it can be seen, the primary differences involve "sampling." However, even if the practitioner decides at this point he should go to II-B, he should familiarize himself with II-A, since II-B is a variation of II-A, just as II-A is a variation of I.

Case II, Alternative Set of Procedures A: Where the Group Size is Small Enough Compared to Resources that Sampling is Not Required.

1.0 Determine the decision making mode the group ordinarily uses in making their decisions.

1.1 The evaluator must insure that the decision makers use their ordinary decision making process, as sometimes when groups act on the evaluation process they may vary from their usual mode which will result in the data not

being most amenable to the ordinary process they use in making decisions which effect the enterprise.

1.2 Throughout the rest of the methodology wherever the phrase "...the decision makers decide, choose, act, etc.," it means that the body makes their decision according to whatever internal, agreed upon decision making process they ordinarily use to make decisions whether it is majority vote, unanimous vote, consensus or whatever.

The purpose here is to determine the process by which the decision makers usually make their decisions. This information will provide a guideline for the evaluator when he later interacts with that group.

It often happens that when confronted with an "evaluator" or an "evaluation" a decision making body will alter for some reason its decision making process when considering evaluation design issues. This may be done, or caused by, a variety of reasons, e.g., wanting to appear "right" to an outsider, a feeling of anxiety, etc. Whatever the reason, it is essential that the evaluator not let this happen for it potentially jeopardizes the entire evaluation by having the wrong data collected, in the wrong order. If this were to happen, the whole purpose of the evaluation would be subverted, viz. providing data for decision making.

There are many decision making modes but it is probable that a single, established decision making body will employ only one primary operating mode. The evaluator might determine this in several ways: (1) observation during the Negotiation of the Contract Phase of the evaluation (Gordon, 1972); (2) discussion of how the group has made key decisions in the past; (3) an Operationalization of Fuzzy Concepts approach. Of course there are probably many others which the evaluator may want to

employ, even combinations of these. The point is that the step be accomplished before proceeding.

It can be seen that the element is comprised of one step with two substeps. Only substep 1.2 needs any additional comments here.

1.2 Through the rest of the methodology wherever the phrase "...the decision makers decide, choose, act, etc.," it means that the body makes their decisions according to whatever internal, agreed upon decision making process they ordinarily use to make decisions whether it is majority vote, unanimous vote, consensus or whatever.

The purpose of this is to serve as a cautionary note to the evaluator. He should keep it in mind throughout not only the Goals Process but the rest of the evaluation as well, because it is possible for the body to veer from its normal behavior at many decision points throughout the evaluation and also throughout this Goals Process. Thus the evaluator is cautioned here, in the initial stage of the process, to be aware of the possibility of this occurring and to not let it happen.

Having established that Alternative A is most appropriate and also the nature of the decision making mode, the evaluator would proceed with the goal identification process. And at this point, Case II-A parallels exactly Case I in both the purposes of the elements as well as the procedures for accomplishing those purposes. Therefore, the steps will be given here but the explanation will not be duplicated for the purposes of efficiency and avoiding redundancy.

2.0 Ask each member of the group, separately, to respond to the following stimulus either by writing or tape recording:

> What do <u>you</u> really want (the enterprise) to be and to accomplish? What do you

really want (the enterprise) to accomplish for yourself and others?

(Note: These are separate questions but a single stimulus and if the first question does not seem appropriate, then the second, a paraphrase of the first, may be appropriate.)

The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise" as is appropriate for the given enterprise under consideration.

This differs somewhat from Case I in that while the evaluator interacts with a single decision maker at a time, he has several with whom to interact, unlike Case I where there was a single individual. But since he does this for members of the group on an individual basis, the actual procedures are the same as for Case I.

A minor step is next necessitated because more than one decision maker or individual has been producing goal statements.

3.0 The evaluator combines all the output from each of the individual members of the decision making body, which has been arrived at on an individual basis.

This is a minor, mechanical step for taking several lists and combining them into a single list. This is more efficient and a less complex procedure for working with goals and with decision makers. Anything that improves efficiency of operation will also improve the efficiency of resource utilization. Since resources are always limited, increasing the efficiency of their use is always desirable. After this step, Case II-A would again merge, for all intents and purposes, with Case I:

Case I	Case II-A
step 2.0	step 4.0: goals analysis
step 3.0	step 5.0: documents test of completeness

step 4.0
step 5.0
step 6.0: "others" test of completeness
step 7.0: presentation of tests of completeness to the decision maker

In Case II-A, for steps 4.0 through 7.0, the practitioner would return to Case I and implement what is called for there. There would be one slight difference in that in step 7.0, rather than one evaluator interacting with one individual, he would be interacting with the decision making body acting as an individual decision maker. This in turn is bound to involve new dynamics of interaction but these are group dynamics factors and personality factors, not methodological factors. This does not mean to say that such variables aren't important or don't (can't) play a major role in the Goals Process. It is just to say that these factors will not be further discussed here as they are not a methodological consideration. For the purposes of this chapter, it is sufficient to have made the reader aware of this aspect of the Goals Process.

There are several ways of handling the mechanics of presenting the goals list (stimulus) to the group for their reaction:

1. Make transparencies of the list and present it (them) visually to the group.
2. List the goals on the blackboard.
3. Have the list typed prior to a group meeting and then distribute such a typed list to each individual decision maker in the group.
4. If a good deal of evaluator control (for efficiency purposes) is desired, the evaluator may choose to read the goals one by one, allowing the decision making group to discuss each

one and make a decision on each one.

Whichever method is chosen, whether one of these or another, it is important for the evaluator to carefully record by checking, or starring, or circling, which goals are held, and to record any new, additional goals.

The result of this process should be that the evaluator have a list of goals, all of which are held to whatever degree by the decision making body and that this list have no goals on it not held by the group.

The next step of Case II-A is: step 8.0, the Activities Test of Completeness. This is the same as the Activities Test of Completeness in Case I (6.0) and so again, Case II-A merges with Case I in the performance of this task. However, as with the previous step above, there would be slight differences in terms of the physical mechanics for handling the step and the additional time factor of interacting with several individuals separately and then interacting with a decision making body. Conceptually and procedurally the reader is referred back to the more thorough discussion of this test of completeness found in Case I.

Mechanically, the presentation of this material for the matching process could be handled in any of the four ways suggested for the presentation in step 7.0 (previous page). Any of these procedures, or combinations thereof, could again be used here where the matching is done.

The next step, 9.0, is the Commitment step. Again, the process here would be the same as the Commitment step in Case I (7.0), and the reader is referred back to that point if he feels he needs reinforcement of the concept.

Step 10.0 is the prioritization step. It too is the same as the

Prioritization step (8.0) in Case I. The evaluator is reminded of the cautionary note introduced at the beginning of Alternative A: to insure that the decision making body use their normal decision making mode of behavior in all of these encounters with the evaluator at key decision making points in the goals process. Other than that, Case I has dealt thoroughly with the issues involved.

In summary, it can be said that Case II-A parallels Case I in many places. The only differences in the former were introduced because of the nature of the decision maker, i.e., it is multiple rather than single. These differences are mainly mechanical.

As an example, Case II-A was the appropriate set of goals procedures used with the primary decision makers when an evaluation of the Mark's Meadow experimental K-1 curriculum project (Title III) was done.

The primary decision makers were a small staff of four persons who made their decisions relative to the enterprise (i.e., the K-1 program) by group consensus. At each of the decision points in the Goals Process, they, as a group, made the decisions necessary through their usual consensus process.

Case II-A was used by the evaluator because the resources were sufficient enough to allow individual interaction and sampling was not needed. The decision making mode (step 1.0) was determined to be consensus, and so the evaluator throughout the Goals Process insured that decisions were made by consensus. The results of the Goals Process as applied to this decision making group are presented as part of the evaluation report to the State Department of Education (Benedict and McKay, 1970, 1971) and the reader is referred to that report for the specific

products of the application of Case II-A.

Case II, Alternative Set of Procedures B: Where the Group Size is Large Enough Compared to Resources that Sampling is Required.

The purpose of this Case of the Goals Process is exactly the same as that of the two prior sets of procedures: to arrive at as complete an approximation as possible of decision maker intents for the enterprise. The reader would have been referred to this point by step 3.0 of Case II, where he would have decided that the decision making group he was to work with is too large relative to resources available to individually interact with each decision maker. Therefore, sampling procedures are required. Prior to that point, the practitioner would have followed the same discussion preceding Alternative A and would need the same level of entering behavior here as was specified for Alternative A.

The first element of Alternative B provides an additional criteria of entering behavior which is unique to Alternative B:

1.0 Determine if the evaluator who is going to use this Case has a knowledge of sampling techniques. If not, then the evaluator should consult someone with expertise in sampling procedures.

A "...knowledge of sampling techniques..." is meant to include not only theory and facts, but also knowledge of when and how to use them. Preferably the evaluator will have experience in applying sampling techniques.

Sampling is used considerably throughout this set of procedures. In fact, whenever there is a need to involve individual members of the large decision making body, sampling will be done. Whenever sampling is employed, it should be random. Finally, the size of the samples will

depend upon the resources--time, money, staff, experience--available. For instance, few resources will mean a relatively small sample.

However, sampling is not used exclusively in this case. That is, in this set of procedures there are several instances where the decision making "group" must decide on something, make some decision. Whenever the "group" decides, then the whole group must be used and not a sample. Both samples and the whole group are periodically needed in Case II, Alternative B.

Because of the importance of sampling in II-B, and because of the frequency of its use, the evaluator or practitioner should at this point seriously and accurately determine his skills and abilities in sampling. If he is unrealistic about his expertise in this area he will probably cause the evaluation to fail.

After this self-appraisal, the evaluator will either decide the evaluation endeavor needs to hire or not to hire, on a consulting or part-time basis, someone with expertise in sampling techniques. If the decision is to so hire someone, then this should be done before proceeding further in this process.

Once all of these criteria are met, the evaluator would proceed to the next step of determining the body's decision making mode. This differs not at all from Alternative A and thus A and B would merge at this point. However, for the very next step, the two sets of procedures would diverge.

3.0 Select a sample from the decision making group.

3.1 Determine the amount of resources - time, money, staff - available and this amount in turn will be a limitation on the size of the sample and on

the sophistication of sampling techniques.

If 3.0 is not comprehensible to the extent that the practitioner could proceed with doing what is asked for in that step, then a consultant with sampling expertise should have been hired. The purpose of 3.0 is to begin to mechanically handle a decision making body which is too large to allow the evaluator to interact with individual decision makers. It samples from the group so that individual interaction can be undertaken at various succeeding points (cf. below).

Step 3.1 supplies the other criteria for sample size determination. Resources, especially staff and time, as they limit the scope of the evaluation, will also limit the size of the sample. Because this is flexible and would vary across evaluation designs, there is no fully operationalized figure here. The size can only be determined as a result of an assessment of all these variables.

By completion of this element, then, an actual sample would have been selected; the decision making group would have been made aware of the rationale and procedures of sampling and the sample members would have agreed to cooperate. Following this, Alternative B would again merge with Alternative A and the practitioner would proceed exactly as he had in that Case.

Alternative B	Alternative A	Case I
step 4.0	step 2.0	step 1.0: initial goals list
step 5.0	step 3.0	not applicable: combine lists
step 6.0	step 4.0	step 2.0: goals analysis
step 7.0	step 6.0	step 3.0: documents tests of completeness
step 8.0	step 6.0	step 4.0: "others" test of completeness

Having referred back, if necessary, to the appropriate steps in Alternative A, and in turn, if necessary, to Case I, the practitioner would have proceeded through step 8.0 and all its substeps of Alternative B. After this, Alternative B would again diverge.

Steps 7.0 and 8.0 it will be recalled were the tests of completeness steps, i.e., alternative stimuli for the decision makers to react to in order to be "stimulated" by perspectives other than their own. Step 9.0 now calls for mechanically handling the products of these tests of completeness before their presentation to the decision makers.

9.0 Combine all the output from 6.0 (the goal analysis of the combined output of the sample members), 7.0 (alternative list(s) of goals from documents), and 8.0 (alternative list(s) of goals of others).

(Note: This combined output should be in the form of a list of goals, with a single goal per line.)

This is a fairly simple process: simply take all the goal statements to date in the process and list them separately, making sure there is only a <u>single</u> goal, or goal intent, per line. This is to insure that when the decision makers respond to each goal or intent, they are responding to a single stimulus and not multiple stimuli. (Refer back to the discussion of the goal analysis, step 2.0, Case I, for a fuller discussion of this point.)

Following this step, II-B continues to diverge even more dramatically from II-A:

10.0 Collapse the goals list into an ordered list of goals.

10.1.0 Take the list of all the goals. Have each member of the group, individually,

check off on the list those goals which he holds for the enterprise. He does this for the entire list of goals.

10.1.1 A special case of this: If the group is very large, with one hundred or more persons, the evaluator would perform 10.1 by dividing both goals and decision makers into groups.

10.1.2 Divide the decision making body into sample sizes of 20 or greater. (This is done by sampling procedures.)

10.1.3 Divide the goals into groups of 100 or smaller.

10.1.4 Have an equal number of sets of goals and groups of decision makers. It may be necessary to adjust 1.2 and 1.3 to do this. The evaluator should end up though with an equal number of each, e.g., 10 groups of decision makers and 10 lists of goals.

10.1.5 Randomly assign goals lists to the groups of decision makers, such that all the goals lists are distributed, one to each group and each group getting one list.

10.2 Compile a frequency count for each goal on the list and compute a percentage of the number of members in the group who hold each goal on the list as a goal for the enterprise.

10.3 Order the list of goals now by frequency, the goal receiving the most check marks and therefore the greatest percentage ranking #1, the goal with the next highest percentage ranking #2 and so on for all the goals.

10.4 Determine if the resources are limited. If they are proceed to 11.0. If they are not, e.g., if there is more than $20,000, then

proceed to 14.0 and eliminate 11.0 through 13.0.

The purposes of this element are: (1) efficiency in proceeding with the evaluation; (2) a reduction in the enormous list of goals resulting from the previous step (9.0); and (3) the implementation of the tests of completeness. All of this is part of the larger purpose of arriving at a complete approximation of decision makers' goals or intents for their enterprise.

10.0 Collapse the goals list into an ordered list of goals.

This shares the same purposes as the element of which it is a part. "Collapse" actually means in this context to systematically reduce the quantity of goal statements. "Ordered" implies by some criteria and this is explained below.

10.1.0 Take the list of all the goals. Have each member of the group, individually, check off on the list those goals which he holds for the enterprise. He does this for the entire list of goals.

The purpose of this substep, in addition to helping to accomplish the step above, is to have the decision makers react to the tests of completeness, as well as the goals of the individual sample members (which the group as a whole has not yet seen). The evaluator would explain the rationale and procedures of all of this to the group before they actually perform 10.1.0. This substep is also where the individual decision maker of the larger decision making group reflects <u>his</u> intents for the enterprise.

The next process is a sub-element in and of itself and is applicable only in certain cases.

10.1.1 A special case of this: If the group is very large, with one hundred or more persons, the evaluator would perform 10.1 by dividing both goals and decision makers into groups.

10.1.2 Divide the decision making body into sample sizes of 20 or greater. (This is done by sampling procedures.)

10.1.3 Divide the goals into groups of 100 or smaller.

10.1.4 Have an equal number of sets of goals and groups of decision makers. It may be necessary to adjust 1.2 and 1.3 to do this. The evaluator should end up though with an equal number of each, e.g., 10 groups of decision makers and 10 lists of goals.

10.1.5 Randomly assign goals lists to the groups of decision makers, such that all the goals lists are distributed, one to each group and each group getting one list.

This provides for accomplishing the checking off of goals when the decision making group is relatively large. The procedures called for are based on the scientific principles of sampling and randomness. (Again, if the evaluator had hired a sampling consultant, he would probably be assigned this task. If not, this would imply the evaluator had expertise in sampling. And in either case, the implication is that there is no further need for this paper to detail fully the actual steps involved for they are self-explanatory to someone with sampling expertise.)

10.2 Compile a frequency count for each goal on the list and compute a percentage of the number of members in the group who hold each goal on the list as a goal for the enterprise.

Continuing with the collapsing and ordering of goals, 10.2 calls for ascertaining which goals are held by members of the group and to what degree any single goal is held. "Compile a frequency count": for each

degree any single goal is held. "Compile a frequency count": for each goal on the goals list submitted to the group, count how many members checked it off and record this number.

"Compute a percentage": once frequencies have been determined, the evaluator would proceed to converting these into what percentage of the individuals of the group holds (i.e., checked off) each goal. The evaluator then has two pieces of information he will later need to present to the group.

10.3 Order the list of goals now by frequency, the goal receiving the most check marks and therefore the greatest percentage ranking #1, the goal with the next highest percentage ranking #2 and so on for all the goals.

This substep's purpose is to deal with the product of 10.2 as well as providing the "ordered" part of the overall step (10.0). The mechanics of doing this are obvious although it might be added that any goal or goals receiving no checks, i.e., held by no member, should simply be left off this ordered list. The evaluator would now have a list of goals ordered according to how many individual members of the decision making body hold each goal for the enterprise.

Before proceeding with the next major element, though, another evaluator decision point needs to be passed:

10.4 Determine if the resources are limited. If they are proceed to 11.0. If they are not, e.g., if there is more than $20,000, then proceed to 14.0 and eliminate 11.0 through 13.0.

There is a "short" process by which the remaining tasks in the Goals Process can be completed and there is a "long" process. The decision as

to which of these to follow is at least partially determined by resources available. Seldom will the latter alternative be chosen for it will seldom be practical. However, it is the purpose of this chapter to provide as full an explanation of the complete process as possible and this is what it will do.

Assume resources are less than $20,000, which, as stated above, will nearly always be the case. (This $20,000 figure does not mean resources remaining to devote to this activity, but $20,000 for the entire evaluation. This should indicate that this procedure will seldom be used.) If so, the evaluator would proceed with: "The Simple Process: Where the Resources are Limited."

11.0 From the list (10.3) choose the first 10 to 20 goals, i.e., the 10 to 20 most frequently checked items. These now become the goals list to present to the group as a whole.

In all probability, even the list of ordered goals arrived at in 10.3 will be much too lengthy to manage in its entirety at this point. The purpose of this step, therefore, is to reduce that list, on the basis of "most frequently checked" criteria, to the first 10 to 20. This interval is only arbitrary and can vary given the evaluator's desires, knowledge of the decision makers with whom he is working, resources available and so on. The assumption made here is that goals most frequently checked by individual decision makers will in reality reflect those goals held by the decision making body of which those individuals are members. There are provisions designed to deal with the possibility, should it arise, that this assumption is false.

12.0 The decision makers, as a group, are presented with this list of 10 to 20 goals, depending upon resources, ordered according to frequency. At this time, the evaluator explains to them the process by which this list was arrived at, beginning with the original sample and explaining the whole procedure.

The list of goals is presented, including the frequency counts and percentages as previously determined in 10.2. The purpose is for the decision makers, using this data, to decide, using their normal decision making mode, which goals they, as a whole, hold for their enterprise. The data they are using as input for this decision are goals which individuals among them hold. This is (or may be) different from what the group as a group holds. This is now determined by the group selecting its goals.

Because the process of reaching this point is complex, a full explanation of it is also given to the decision makers for their input. In keeping with the purpose of the evaluation, this material on its own level is data for decision making.

13.0 The decision makers are then asked to react/respond to this frequency list. They do this in a manner in which they usually make their decisions. The evaluator asks the group to decide if they are prepared to accept this list both as the goals list for the enterprise and in the prioritized manner arrived at in 10.3 and 11.0 above.

The evaluator points out that if they vote no, they must commit more resources to the evaluation.

(Note: They do have the option of making changes in priorities for say the first ten goals, but that is all they may change here without committing more resources.)

This step would expect the group to accept the list pretty much intact, as presented to them by the evaluator. If they decide to change a few (cf. note) priorities this they would do by means of their normal decision making mode. The terms "...react/respond..." mean they are to proceed with deciding to accept the list, modify it (minor) or reject it.

The two substeps of 13.0 provide directions on how to proceed with the evaluation.

13.1 If they vote yes, i.e., accept the list and the order (or as slightly changed by the note in 13.0), then the evaluator proceeds with the operationalization process.

If they accept the list, and the likelihood is very high they will if Alternative B has been carefully followed, the goal identification and prioritization procedure is complete and the evaluation would proceed.

13.2 If they vote no, then the evaluator again informs them of the need for more resources; gets the resources committed and then proceeds with the lengthy, complex process for arriving at a complete goals list.

(Note: Usually, the resources will be such that the lengthy process will seldom occur in Case II-B. However it will be presented here for the few cases where it will be needed.)

If they vote no, then the Goals Process is not complete and further steps are needed. The goals have been identified; they now need to be prioritized. To do this, more resources would be needed. The evaluator would at this point secure these resources and then proceed with the Complex Process of Goals Prioritization for Alternative Set of Procedures, B.

The complex process where there are many resources is labeled such because of its increased complexity in two areas: (1) use of all the

goal statements chosen by the sample of the decision making body, on an individual basis, and not just the 10 to 20 most frequently checked by those sample members and (2) an increased amount of interaction with the decision making body in the ordering process.

The evaluator would be referred to this point by step 10.4 where a resource determination was done and at which point a decision was made as to whether "many resources" existed. Another possible way the evaluator would have been directed to this point is by dissatisfaction of the decision making body with the short process and the ensuing commitment by them of more resources to proceed to this point of the complex ordering process.

14.0 Using the ordered list from 10.3 (the entire list) collapse the goals list into a synthesized, categorized shortened list of more general or global goal statements. This list should have no more than (say) 20 goal statements on it.

14.1 Take the goal with the highest frequency and record it on a separate piece of paper. Take the #2 goal and ask yourself, "Can I write a more general goal statement which will incorporate both of these?"

14.1.1 If the answer is yes, then do so and record it on the same piece of paper.

14.1.2 If no, then record it on a second sheet of paper thus starting another category.

14.2 Take the #3 ranked goal (the goal with the third greatest percentage) on the frequency list and repeat the procedure. Check it against the first category and ask the question, "Does this fit into this statement

or can I write a more general statement incorporating both?"

14.2.1 If yes, it does fit, then write it down. Or if a more general statement can be written, then write it down.

14.4.2 If the answer is no, go to the second sheet of paper. If it belongs there, add it, and if it doesn't, start a third category.

14.3 Repeat this process for each goal on the frequency list. As a maximum, though, there should be no more than twenty to thirty categories so that the final list to be presented to the group will have no more than twenty to thirty goal statements on it.

The list of goals (10.3) in all probability is lengthy, too lengthy to effectively present to a decision making body (which is already large). Such a process would be too cumbersome and overwhelming to that group. This element provides for using all the goals data, but incorporating them into a slightly different state of appearance. The evaluator systematically incorporates each goal statement into larger, more general, more global and therefore more encompassing goal statements. That is, an abstracting, generalizing process is used, as opposed to an operationalizing procedure. The whole purpose of this is to mechanically reduce the numbers of goals/intents such that interaction with the decision making body will be possible.

14.1 Take the goal with the highest frequency and record it on a separate piece of paper. Take the #2 goal and ask yourself, "Can I write a more general goal statement which will incorporate both of these?"

The rationale here is to begin an incorporation of more than one goal into a more general goal statement which can be considered to include that more specific statement. That more general goal statement is either created at this point by the evaluator or an alternate possibility is that one of the goal statements is already more global than the other and in addition can be considered as subsuming the more specific goal in which case the evaluator would utilize this rather than creating his own new statement.

The two substeps provide the directions for doing this.

14.1.1	If the answer is yes, then do so and record it on the same piece of paper.
14.1.2	If no, then record it on a second sheet of paper thus starting another category.

If a more general statement can be written (14.1.1) then the evaluator does so, making sure to record also the more specific goals subsumed by it. This latter "bookkeeping" is essential for in a later step in the evaluation (operationalization) these become important data and should not be "lost" at this point.

If the two goals here do not fit into a more general goal, e.g., because they are mutually exclusive, in conflict, or in different content areas, then the evaluator (14.1.2) would start a new category (or subcategory waiting to be incorporated with goals to come), following which he would proceed down the list of goals.

14.2	Take the #3 ranked goal (the goal with the third greatest percentage) on the frequency list and repeat the procedure. Check it against the first category and ask the question, "Does this fit into

this statement or can I write a more general statement incorporating both?"

If 14.1.1 was appropriate and a more general goal statement was created, then the evaluator would compare the #3 goal with this statement and ask (1) if it could be subsumed under that general goal; or (2) if an even more general goal could now be written to also incorporate this third one. If the answer to either of these is "yes," then,

14.2.1 If yes, it does fit, then write it down. Or if a more general statement can be written, then write it down.

If 14.1.2 was appropriate, a slightly different tack is taken. The evaluator takes this third goal and goes back to category I (goal #1) and asks if goal #3 and goal #1 can be incorporated into a general statement. If so, he would do this. If not,

14.2.2 If the answer is no, go to the second sheet of paper. If it belongs there, add it, and if it doesn't, start a third category.

He would go to category 2 and ask if #3 and #2 can be incorporated in a fashion. If yes, he would do so. If not, he would then start a third category. And then,

14.3 Repeat this process for each goal on the frequency list. As a maximum, though, there should be no more than twenty to thirty categories so that the final list to be presented to the group will have no more than twenty to thirty goal statements on it.

These substeps would then achieve the purpose of the element of systematically reducing a large class of goals into a smaller but more general class of goals. This new class of goals would be called a "collapsed" list because the long list has been systematically "collapsed" into a shorter list.

A good example of this is provided by a case study done at the School of Education, University of Massachusetts, Amherst, Massachusetts in 1970. The School had been administratively organized into "Centers" which could be considered analagous to departments. As part of the evaluation process of those Centers, a sampling process had been employed and goals elicited from a sample of students, faculty and Center directors. Tests of completeness were employed and a goals analysis completed. Some 350 different goals were thus identified.

A frequency count was done, percentages computed and the process of combining goals by generalizing these goals into more global statements was begun. List I is a single page taken from that list of 350 goals. The check marks indicate that the person returning this list held those checked goals for the enterprise, i.e., Centers. List II represents the frequencies and percentages for that same page of List I and represents the actual working copy of the evaluator. Finally, List III is the categorization scheme which was used to incorporate 350 goal statements. (The actual abstract goals statements are not presented here because they were "lost" and not available to this author.)

Having done this, a process incorporating more data on goals for decision making, the next process with which the evaluator would proceed is exactly the same as that employed in Case I, step 5.0: presentation to the group for reaction. It will be recalled that the decision makers test the completeness of their goals list and so the evaluator would return to that point in the goals methodology. (That is, II-B merges again with II-A and I.)

GOALS FOR CENTERS: LIST I

1. _____develop a hierarchy of leadership within centers.
2. _____establishing uniform standards within the center.
3. _____any center can draw upon another for resources.
4. _____centers must be subject to critical evaluation.
5. _____to program goals for the school.
6. _____an identifiable place for people to belong.
7. _____no rise and fall of centers.
8. _____to provide authorization of courses.
9. _____establish liaison with all elements in the School of Education.
10. _____function as a "means" to reach the goals of the School of Education.
11. _____provide consultation to groups in the school.
12. _____to improve communications in School of Education.
13. _____to improve understanding in School of Education.
14. _____take part in policy planning.
15. _____bring a variety of talent to the School of Education through decentralized recruiting.
16. _____centers offer integration of skills and talents.
17. _____to reflect important areas of concern.
18. _____to maintain organizational structure.
19. _____to balance the system.
20. _____maintenance of standards of institution excellence.
21. _____to have no definite boundaries.
22. _____to reflect on School as a whole.
23. _____to promote School of Education.

24. _____make known their resources to the community.

25. _____establish liaison with teacher trainees.

GOALS FOR CENTERS: LIST II

%	Goal #	Freq.	
26.4	1.	14	develop a hierarchy of leadership within centers.
18.8	2.	10	establishing uniform standards within the center.
75.4	3.	40	any center can draw upon another for resources.
52.8	4.	28	centers must be subject to critical evaluation.
32	5.	17	to program goals for the school.
62.	6.	33	an identifiable place for people to belong.
5.6	7.	3	no rise and fall of centers.
41.5	8.	22	to provide authorization of courses.
50.9	9.	27	establish liaison with all elements in the School of Education.
79.24	10.	42	function as a "means" to reach the goals of the School of Education.
58.49	11.	31	provide consultation to groups in the school.
52.8	12.	28	to improve communications in School of Education.
37.7	13.	20	to improve understanding in School of Education.
71.7	14.	38	take part in policy planning.
58.49	15.	31	bring a variety of talent to the School of Education through decentralized recruiting.
41.5	16.	22	centers offer integration of skills and talents.
64.15	17.	34	to reflect important areas of concern.
30.9	18.	16	to maintain organizational structure.
15.1	19.	8	to balance the system.
30.9	20.	16	maintenance of standards of institution excellence.
18.8	21.	10	to have no definite boundaries.
26.41	22.	14	to reflect on School as a whole.

41.5 23. 22 to promote School of Education

66 24. 35 make known their resources to the community.

54.7 25. 29 establish liaison with teacher trainees.

SCHOOL'S GOALS FOR CENTERS
CATEGORIZATION SCHEME (TEMPORARY): LIST III

1. Relation to the School
2. Relations outside the School
3. inter center relations
4. internal policies
5. personnel (staff)
6. students
7. resources
8. academic programs
9. non-academic programs
10. research
11. evaluation
12. generation of new models
13. others

This is a fall-through scheme, i.e., first see if a goal fits into 1, if not try 2, etc.

15.0 The collapsed list of general goal statements arrived at through 14.0 above is now presented to the decision making body as a group. The group is now asked to react/respond to this synthesized and categorized list of goals. They do this in a manner in which they usually make their decisions, i.e., they follow their regular decision making behavior. They are to consider, goal by goal, if the goals are ones which they as a group hold for their enterprise.

The evaluator should explain to the group the alternatives available in this reacting process, namely the substeps below. He should also point out that they do not have to simply choose from the list but can at any time during this step of 15.0 make changes, modifications, etc.

The evaluator would also at this point explain to the group the process by which this list was arrived at, beginning with the original sample and continuing through the collapsing stage.

15.1 If they consider a given goal statement to be one which they hold for the enterprise, it should be added to a "list of goals for the enterprise."

15.2 If they consider the goal statement to be one which they do not hold for the enterprise, it should not be used or added to the list of goals for the enterprise.

15.3 If the particular goal statement stimulates thought or discussion and the decision makers think of additional goals not on any of the lists, then these additional goals should be added to the list at this point. (Goals may be added throughout this step if this should occur.)

15.4 If any one of these steps causes the decision makers to wish to modify one (or more) of the goal statements on the list, then that should be done also.

15.5 These steps should be done for each and every goal statement on the collapsed list presented to the group at the

beginning of this step.

This again employs the test of completeness concept. However, it is not the only test of completeness to be used and the next two elements are employed, assuming, of course, resources allow.

16.0 Draw a sample different from the previous one used. It is all right if there is some overlap with the previous sample.

A sample is used because resources, especially time and patience, would make interacting with the body as a whole an inefficient use of resources. It is wise to allocate and use resources in an efficient manner.

Once this sample is drawn, the procedures of the next element are used. This next element is the activities test of completeness (cf. II-A, 8.0). The only difference here is that instead of dealing individually with all the decision makers of the group, the evaluator interacts individually with only a sample of the decision making group (and the reason for this is wise use of resources).

17.0 Perform the activities test of completeness goals.

17.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity. (If no resources are available, this step is eliminated.)

17.2 Each member of the sample from the decision making body, separately, is asked to make a list of activities, that is, things the enterprise does during the course of its operating. Arbitrarily choose a number, e.g., ten activities each.

17.3 The evaluator combines the output of 17.2 into one list of activities for

the group. Overlap and/or redundancy is eliminated.

17.4 This combined list of activities is presented to the sample as a group and for each item on the list, the sample as a group asks itself the question, "Why do we do that?"

17.5.0 They then relate each reason resulting from the above question to a goal or goal statement resulting from 15.0 above, deciding the goals for the enterprise so this will result in a complete cross check of what goals relate to what activities and what activities relate to what goals on the respective lists.

(Note: This process is done with the sample proceeding as the group as a whole ordinarily does in its regular decision making fashion.)

17.5.1 For each and every reason that does not relate to at least one goal the evaluator points out the discrepancy to the whole group of decision makers, not just the sample. The evaluator might then do two things: (a) ask the decision makers as a group whether in fact they do have a goal for the given activity and if they do, add it to the goals list; or (b) ask the decision makers as a group if that activity is still an activity they wish to pursue.

17.5.2 For each and every goal on the goals list for which no activities are related, the evaluator points out this discrepancy to the decision makers as a whole group. The evaluator again does two things: (a) ask the decision makers if they do indeed have activities they (the enterprise) are doing and if so, add these to the activities list; or (b) if they do not have any activities, ask if this is a goal then which they really

hold and if it is not, remove it from the goals list.

A point should be made here about a procedure in 17.4 which is somewhat different than the previous case. Remember that the alternative set of procedures for Case II, B, is for a large group. Yet there is a need to interact on more than an individual basis with sample members. Here in 17.4 is an example. To do this, the practitioner convenes the sample as a group in order to deal at this decision point with a group but not unnecessarily use up a lot more resources by convening the whole group. In other words, this task needs a group process but is not an important enough task to demand convening the whole group. Here again is an increase in efficiency resulting from a wiser use of resources.

Other than this unique feature, Alternative B again merges with II-A for both this and the next step: The commitment phase (cf. II-A, Element 9.0, commitment phase).

Element 19, Prioritization, shares the same purpose and rationale as II-A, element 10.0, Prioritization. However a slight alteration in procedures is called for because of the difference in size in the group of decision makers. This change deals with the mechanics of prioritizing, and especially, the addition of elements 20.0 through 22.0 in B.

Whereas in Element 10.0 of II-A the decision makers as a group prioritized, here they only choose as a group which criteria will be used (those being the exact same ones as 10.0). However, in terms of applying these criteria and in terms of doing so with the wise use of resources, sampling is again employed.

20.0 The evaluator will draw a sample(s) from the decision making body. The number of samples

is determined by the number of criteria which the decision making body has chosen in the previous step, there being an equal number of samples and criteria.

The purpose here is obvious: wise consumption of resources. The procedures need no further elucidation at this point.

21.0 The evaluator randomly assigns criteria to each of the samples, with each sample receiving only one criteria with which to work.

22.0 The evaluator would then bring the results back to the group, i.e., the prioritized list of goals, which they would then, as a group, consider. The decision makers as a group would be asked to decide if this list represents a reasonable order in which to proceed, i.e., to begin the operationalization process. If they respond positively, the evaluator begins operationalization. If they respond negatively, then the evaluator allows the decision makers to make those last minute changes they wish.

These steps are self-explanatory and when completed, they bring to closure the Goals Process for Case II, Alternative Set of Procedures B, where prioritization is done using a complex process with many resources. Mechanically, the evaluator handles this relatively easily. For each subsample, however many there are (and this is determined by the number of prioritizing criteria chosen) the evaluator would take its output and combine it with the output of all the other subsamples. If the lists of priorities differ, which is possible given more than one prioritization criteria, then the evaluator has several options: (1) he can follow the choice procedures in II-A, step 10.5, with its several substeps, for example ranking criteria or combining weights of criteria; (2) he can simply provide the group as a whole each of the lists of priorities and let them debate the merits of worth of each and then decide on one or

another of the lists or go back to option one which the evaluator could explain in detail.

The purpose is to arrive at the final prioritized list. If the options used are the same as those in II-A, 10.5, then the group would simply accept, or accept with some modifications, the list presented to them. If another option is used, then prioritization is carried out by the way they usually make their decisions. In either case, the Goals Process is completed and the evaluation would proceed with the next process.

As an example, Case II-B was the appropriate set of goals procedures for dealing with the School Council, School of Education, University of Massachusetts when an evaluation of the School of Education was undertaken. The Council which was the major administrative body within the School, consisted of some 30 members, clearly a group which was too large relative to resources and sampling was needed.

Thus a small sample of six members was randomly chosen from the Council. Next the decision making mode was determined to be majority vote. Following these two steps, the evaluator continued with the application of II-B, using the individual sample members where appropriate and using the School Council as a body when appropriate.

The Goals Process: Case III, Where the Group is a Collection of Individual Decision Makers Making Individual Decisions about the Given Enterprise

In practice, the evaluator (and the reader in this instance) would not have just read through a complete delineation of Cases I and II, i.e., the preceding part of this chapter. He would have simply proceeded with

the Goals Process for Case III where he would have been directed by the Orientation Element (I) of the Process. However, it has been pointed out that Cases II and III are in fact variations of Case I. This implies several things for this paper, for the reader of this paper and for the practitioner as well.

Because of the parallel aspects of the Cases and because of the dependence of Cases II and III on Case I for their conceptual bases, procedures, and purposes it is necessary that in reality, the practitioner be thoroughly familiar with all aspects of Case I and II-B: their purposes, practices and rationales; their subsets of procedures and their rationales; their applications and implications. This requirement is set forth as a necessary prerequisite, a mandatory minimal level of entering behavior for the reader of this paper as well as for the practitioner in the field. Only if this is met, will the explanation of Case III be meaningful and will the practitioner be able to understand and implement Case II in practice.

Therefore, in order to meet the performance criteria set forth above, if the reader (practitioner) has not already done so, he is referred back to the beginning of this chapter and asked to read it carefully and thoroughly. This is not a whimsical request but is necessitated for two reasons which will be reiterated here because of their importance:

1. Many of the procedures of III either duplicate or parallel steps in I and these reoccurrences will not be discussed again in this section. Therefore in order for the reader to fully understand these "repetitions" he will need to refer back to Case I and II, and being already familiar

with it will enhance the learning process.

2. Many of the concepts used in Case III are from the first two Cases where they were fully explored and detailed. Therefore in order to conceptually understand what follows, it behooves the reader and practitioner to spend some time studying Cases I and II.

The following discussion will center primarily on those differences between the cases and will only nominally refer to their commonalities.

As with the other Cases, the purpose of this one is to arrive at as complete an approximation as possible of the decision makers' intents for their enterprise. Before reaching Case III, the person performing the Goals Process would have gone through the Orientation Element (I, step 0.0) where the practitioner would have been directed to this point in the Goals Process by substep 0.3.

0.3	If that decision maker is a group which does not act as a single decision making body, then the group is a group of individual decision makers who individually make decisions relative to the enterprise. Refer to Case III; Goals Process, Identification Procedures, Where the Group is a Collection of Individual Decision Makers Making Individual Decisions.

This 0.3 substep is a part of Element I of the Goals Process. All these cases share to a degree the same first element of Orientation and Direction. However, as with II-B, Case III has an additional orientation procedure, namely, that of sampling.

1.0	Determine if the evaluator who is going to use this Case has a knowledge of sampling techniques. If not, then the evaluator should consult someone with expertise in sampling procedures.

(Refer to Case II-B (1.0) for a full discussion of this additional entry criteria.)

The second element of III also is a reoccurrence of an element in II-B:

III	II-B
step 2.0-sample	step 3.0 and 3.1 - sample

Refer also to the II-B reference for a full discussion of the step.

The two cases diverge, though, at the next point in the Goals Process:

3.0	From this sample, draw a smaller subsample, again commensurate with resources available such that the evaluator can interact on an individual basis with this smaller subsample.

The purpose of sampling is to allow the evaluator to interact individually with the decision makers. Drawing a subsample is unique to Case III and is analagous to simply the sample in II-B. The subsampling of the initial sample is mandated by the nature of the decision maker, i.e., a group of individuals who do not make group decisions.

Remember there are points in the Goals Process where "the group," i.e., all the decision makers, need to make decisions or choices. There are other points where it is necessary to work with the decision makers on an individual basis. In Case III the individual decision makers would never meet as a "whole" or have an opportunity to meet as a whole to make decisions as a group. That is, this is not their normal decision making mode. Deciding individually is their decision making mode. Thus a random sample of the class of individuals will serve in this case as "The group" or the "whole" decision making body, while a subsample of this

sample will serve to meet the need of interacting with individuals. Throughout Case III, then, the only additional or unique features are necessitated by this factor. The concepts and rationales remain the same, but mechanically it will be necessary to work with a sample and a subsample of individuals.

Having drawn a subsample, Case III would merge back with II for the following processes:

Case II-A	Case II-B	Case III	
2.0	4.0	4.0	Initial goals list.
3.0	5.0	5.0	Combine lists.
4.0	6.0	6.0	Goals analysis.
5.0	7.0	7.0	Documents test of completeness.
6.0	8.0	8.0	"Others" test of completeness.
No analagous step.	9.0	9.0	Presentation of stimulus list.

Note that Case III which has been merged to this point with II-A and II-B diverges with II-B for step 9.0 which if the reader will refer back to that point in II-B will see is necessitated by further interaction with the decision making group.

Case III would then diverge also from II-B in terms of its next process: selection and prioritization of the goals of the decision makers.

10.0 Perform a goals survey of the larger, original sample.

10.1.0 Take the list of all the goals. Have each member of the sample individually check off the list those goals which he holds for the enterprise. He also is to star (*) the three most important ones. He does this for the entire list of goals. Then, the evaluator would collect each sample member's list, checked and starred.

10.1.1 A special case of this: If the sample is very large, with one hundred or more persons, the evaluator should perform 10.1.0 by dividing both goals and the sample of decision makers into subgroups.

10.1.2 Divide the sample into subsamples with sizes of 20 or greater. (This is done by sampling procedures.)

10.1.3 Divide the goals into groups of 100 or smaller.

10.1.4 Have an equal number of sets of goals and subsamples of decision makers. It may be necessary to adjust 10.1.2 and 10.1.3 to do this. The evaluator should end up though with an equal number of each, e.g., 10 subsamples of decision makers and 10 lists of goals.

10.1.5 Randomly assign goals list to the subsamples such that all the goals lists are distributed, one to each subsample and with each subsample getting one list to work with.

10.2 Compile a frequency count of checks (✓) for each goal on the list and compute a percentage of the number of members in the sample who hold each goal on the list as a goal for the enterprise.

10.3 Compile a frequency count of goals which are considered important, i.e., the starred (*) goals and compute a percentage of the number of members who hold a goal as important for the enterprise.

10.4 Combine the frequencies of the stars and the frequencies of checks by weighting the stars with a value of 5 and the checks with a value of 1.

10.5 Order the list of goals now by the combined weight of the frequencies, the goal receiving the most weight receiving a rank of #1, the goal with the next highest weight a rank of #2 and so on.

This is the prioritization element for Case III and while not unique in purpose, it is unique in terms of the procedures used. In many ways it is shorter and easier to apply than the previous cases. The individual steps are given here.

10.0 Perform a goals survey of the larger, original sample.

To this point goals have been obtained from interaction with individual members of a subsample, documents, and other decision makers. The step calls for ascertaining which goals of this lengthy list are held, and to what degree, by the sample members. (If that sample was random as it should have been, this would then allow some generalization as to the goals of the original group of decision makers. This is the assumption made here.) This goals survey of the whole sample was not done originally, it will be recalled, because of the necessity of dealing with individuals and not a group. (The logistics of trying to work with the whole group would be unimaginable.)

10.1.0 Take the list of all the goals. Have each member of the sample individually check off on the list those goals which he holds for the enterprise. He also is to star (*) the three most important ones. He does this for the entire list of goals. Then, the evaluator would collect each sample member's list, checked and starred.

It will not be possible in all likelihood to convene this sample as a group. Therefore, in order to handle this task mechanically, the following procedures are suggested. Take the list of goals, get it typed and duplicated in the number of which there are sample members. Distribute (e.g., mail) a copy to each sample member with instructions much as they appear in the substep.

The weighting procedure varies somewhat from that in II-B with the addition of the three most important goals being starred (*). Because it is not possible to go back to the individual decision makers to get priorities, the only criteria the evaluator can use for prioritization is that of importance. The evaluation wants to collect data on those goals which are commonly held and which are also important, rather than those that are commonly held but are not important. For example, it is conceivable for a group to commonly hold a goal but feel it is rather unimportant and thus it should not become the #1 item on the goals list. An efficient, complete and focused evaluation, therefore, wants to provide data of import to the decision makers, i.e., on goals which they feel are important, which is one of the reasons for prioritization of goals in the first place.

As at this point in II-B, a sub-element occurs in the prioritization element of Case III which will only be employed as the special case described therein. The procedures are the same as II-B and are self-explanatory.

10.1.1	A special case of this: If the same is very large, with one hundred or more persons, the evaluator should perform 10.1.0 by dividing both goals and the sample of decision makers into sub-groups.
10.1.2	Divide the sample into subsamples with sizes of 20 or greater. (This is done by sampling procedures.)
10.1.3	Divide the goals into groups of 100 or smaller.
10.1.4	Have an equal number of sets of goals and subsamples of decision makers. It may be necessary to adjust 10.1.2 and

10.1.3 to do this. The evaluator should end up though with an equal number of each, e.g., 10 subsamples of decision makers and 10 lists of goals.

10.1.5 Randomly assign goals list to the subsamples such that all the goals lists are distributed, one to each subsample and with each subsample getting one list to work with.

If it were not appropriate to employ this sub-element, the practitioner would have proceeded from 10.1 to 10.2 below:

10.2 Compile a frequency count of checks (✓) for each goal on the list and compute a percentage of the number of members in the sample who hold each goal on the list as a goal for the enterprise.

This is exactly analagous to II-B, 10.2. Because the additional criteria starring was introduced here, an additional frequency/percentage procedure is called for, and in this instance II-B and III do not merge fully.

10.3 Compile a frequency count of goals which are considered important, i.e., the starred (*) goals and compute a percentage of the number of members who hold a goal as important for the enterprise.

Each goal now has two weighting factors: a check and a star. These are now used to order the list of goals, in the next two steps:

10.4 Combine the frequencies of the stars and the frequencies of checks by weighting the stars with a value of 5 and the checks with a value of 1.

10.5 Order the list of goals now by the combined weight of the frequencies, the goal receiving the most weight receiving a rank of #1, the goal with the next highest weight a rank of #2 and so on.

Except for an additional weighting factor, this process is the same

as it was in II-B. The resulting product will be an ordered list of goals, ordered by weight.

11.0	Determine if the resources are limited. If they are, the evaluator is done with the goals process and would proceed with the evaluation. If they are not, e.g., if there is more than $20,000 for the evaluation, then proceed to 12.0 and continue with the goals process.

If resources were limited, the evaluator would continue with the evaluation using the ordered list of goals. The Goals Process would be complete. However, a special branch has been designed which is analagous to the complex prioritization process in Case II-B, and like II-B, this was designed to be used <u>if</u> desired and in addition, <u>if</u> there are abundant resources. (Even if there are abundant resources, this does not have to be used but is simply an option.) In reality, the practitioner would seldom use this option but is provided here in keeping with the purpose of this chapter, namely, a full delineation of the goals process.

As pointed out above, this next step serves exactly the same purpose as that of 11.0 in II-B:

12.0	From this list of goals (10.5) choose the first 10 to 20 most important goals, i.e., the 10 to 20 highest weighted items. These now become the goals list to present to the group of individual decision makers.
13.0	Each member of the group of individual decision makers is provided with this list of 10 to 20 goals, depending upon resources, ordered according to weight. This list would also have an explanation of the process by which this list was arrived at, beginning with the original sample and explaining the whole procedure.

Mechanically, 13.0 could be handled as was Case II, 10.1.0: mailing out a copy of the list to each individual decision maker. It might be

noted also that the factual information included in the last sentence of this step would be typed as instructions at the beginning of the mailed list of goals as would be much of the content of the following step:

14.0 Each person is instructed, via directions at the beginning of the goals list, to choose those goals he holds for the enterprise by checking off those which are appropriate. The evaluator would then gather these checked lists from the group of individual decision makers.

(Note: The instructions would make it clear that the respondent is to check only those goals which he both holds and feels are <u>important</u> to the enterprise, <u>not</u> just to check off goals he holds for the enterprise.

Finally, these lists would be collected. This could be mechanically difficult, much the same as getting returns back on a mail survey. If a mailing were used, the evaluator could ask to have the results mailed back to him and include a stamped, self-addressed envelope. Chances are that only 50% (or less) would be returned. A follow-up on non-respondents could then be tried. Plans will have to be developed to insure as high a return rate as possible.

Once the lists are returned, the procedure is exactly the same as for the "short" process, only this time, more data would have been taken into account in ordering the list.

15.0 Compile a frequency count of checks (✓) for each goal on the list and compute a percentage of the number of members who hold each goal on this list as important to the enterprise.

16.0 Order the list of goals by frequency, the goal receiving the most check marks would rank #1, the goal with the next highest percentage ranking #2 and so on for all the goals on the list.

These are exactly the same as 10.4 and 10.5 of Case III. But finally,

17.0 This ordered list of goals would constitute a list of prioritized goals for the group of decision makers and the evaluator would proceed with the evaluation.

This would complete the complex prioritization of the Goals Process for Case III.

An actual example of the process outlined in Case III, including the complex process, would be one carried out at the School of Education, University of Massachusetts for Faculty Goals for the School (Benedict, 1970). The Faculty can at times be considered as a group making group decisions, e.g., faculty meetings, in which case II-B would be the appropriate set of procedures to use. However, given the context of this particular evaluation, the Faculty was simply a collection of individuals making individual decisions about the School of Education.

A random sample of faculty members was chosen. This was done by assigning each member a number, from one through 74 (that being the number of faculty in the School of Education at that time). Then, using a table of random numbers, the entire faculty was arranged in a random order.

Given the time factor involved which was a limited resource, a figure of 10% was arbitrarily chosen as the sample size from which to collect the original, initial list of goals which would later be submitted to each faculty member for consideration. This random sample consisted of eight members, and since it was random, it did represent a cross section of the faculty.

Following this sampling procedure, an initial interview session was

set up with each of these eight people individually and Case III, step 4.0 was applied. From this a list of 62 goals was derived. To check if this sample had given all the goals they had (i.e., to test the completeness), half (four) of the sample was randomly chosen to whom to present this total list. As a result of this second interview session six goals were added, giving a total list of 68 goals. (To answer the question why all eight members were not contacted again, the time factor entered again and there was not enough time, given the difficulty of arranging meetings with all eight to wait until all were contacted.)

This list was then distributed to each faculty member via their mailboxes. Of 74 distributed lists, 17 were returned. From these 17 lists, an additional 16 goals were taken, a list made up and then this list in turn was distributed to the Faculty via their mailboxes. Again, of 74 distributed lists, 19 were returned.

As far as the representatives of this sample is concerned, this represents a minimum of 25% of the Faculty. If it is assumed that at least part of the original stimulus sample did not return these lists--and it can probably be fairly safely assumed this is true although for purposes of compiling the data this assumption was not made--than this figure of 25% could increase to a maximum of 35% if all eight did not respond. Thus the least number which this report represents is 25% of the Faculty and the maximum number represented is 35%.

To cope with the problem of the group responding to the first list being smaller by two than the group responding to the second list, a percentage was computed for each item by dividing the frequency of check-marks for the item by the number responding--17 on the first 68 items and

19 on the last 16 items--thus giving a percentage of respondents on a given item, rather than simply a frequency count.

Following the frequency count and a conversion to a percentage, the items were ordered according to percentages, with the item receiving the greatest percentage coming first. This was done in two sections: the first 68 items and the last 16 items, since the two can't be pooled as it can't be assumed that the respondents for each were the sample people.

Rather than presenting all those goal statements here, only the first page will be given for illustrative purposes. (The number next to each item refers to its number on the original list sent out in the goals survey of the group.)

Items number 1 through 68:

Frequency	%age of respondents	Item
12	70	1. Flexibility
		29. should be a group of individuals who are concerned with and cognizant of the process of social and institutional change
		51. constantly seek new modes of educating our students about education (Something '70 for example)
10	59	2. to function as a flexible umbrella for educational innovation and development as possible
		23. more than impart knowledge but a zest for learning, for life
		24. to provide inservice help to teachers, administrators and

Frequency	%age of respondents	Item	
			researchers in Massachusetts and across the country
9	53	3.	to be an integral part of the rest of the University
		9.	contribute maximally to self-fulfillment of each and every person with which it is associated
		15.	create a group of people who would be a community of learners, i.e., bound together by common set of goals, the primary goal being the humanizing of institutions of education: elementary, secondary and higher education
		21.	students should learn how to learn as a result of their experiences at this School of Education
		26.	to create and implement educational innovations in schools in Massachusetts and across the country
8	47	4.	should aid and cooperate with other departments and segments of the University to help our clients to be the best teachers possible
		11.	be the best school of education in the country
		12.	not to allow the current operation at UMass to embarrass scholarship in my area any more than possible, e.g., poor dissertations, lack of guidance and so on
		14.	create a group of people who are concerned about analyzing contemporary problems in education

Frequency	%age	Item
		20. should raise questions about how kids learn, how teachers should relate to their students, about the structure of the classroom and of the subject matter areas and should constantly seek answers to these kinds of questions

There is yet another complex prioritization process which could be used to order the goals of these individual decision makers. This is done when the evaluator wishes to place an additional priority on making sure that there will be at least some data for every decision maker. This procedure is as folows.

Take the initial prioritized list of goals arrived at in 10.5 and list them on the vertical axis of a matrix. On the horizontal axis, list the individual decision makers in the sample who had both checked (✓) and starred (*) the goals.

PERSONS	A	B	C	D	E	F	G . . .N
GOALS							
1	0	1	5	0	1	5	5
2	5	0	5	1	0	0	0
3	1	0	1	5			
4	0	0	1	0			
5	5	0	1				
6	1	0	0	5			
7	0	0	5	5			
8	5	0	1	5			
9	1	0	0	0			
10	0	0	0	0			
.							
.							
.							
N							

For the first goal, go back through the data sheets and take the weight each individual decision maker gave this goal. That weight will either be a "0," a "1" or a "5" (not held; checked; or starred). Record that weight under the appropriate person for Goal #1. Then repeat the

process for Goal #2 and so on through Goal N. So, in the above example then, Person A did not hold Goal #1 as a goal for the enterprise; for Goal #2 though, Person A held it as an important goal (5); Goal #3 he only held as a goal for the enterprise (1) and so on.

Now choose the number one goal from whichever list it came, i.e., either the simple or complex process. Remove from 2 ...N the responses of all the people who gave this a "1" or "5," i.e., all who did not have this a zero. In our example above, for Goal #1, this would eliminate persons B, C, E and F.

These people are "removed" for the reason that they have one goal in the list and therefore at least some of their needs are represented. Next, recalculate the sums of the weights of the remaining goals, minus the persons who have been "removed." This will give a partial sum, and is analagous to partial correlation. The term partial is used because the sum is not the sum of all individuals, i.e., certain individuals have been removed and thus certain scores have been removed from this recalculated sum.

When the sums are redone, chances are the previous #2 will not now automatically become the #1 goal. Because a partial sum is used, a new goal will likely emerge as #1.

Going back to the example, for instance, Goal #8, when resummed, gets a weight of 10 (persons B, C, E and F having been removed). This compares to an original sum of 11 for it. The original #2, when resummed, gets a score of six. The largest score, now when all scores is resummed, is for Goal #8.

Repeat the process. Those persons who gave #8 either a "1" or "5"

have their answers or choices removed for goals #2...N, and then, after removing #8 (which now becomes the new #2 goal), recalculate the sums. Determine the new #1 item and this would become the #3 goal on the "new" prioritized list. Repeat the process until all the partials have been done and all the people have been crossed out.

It may take only two or three goals before all the persons are represented by at least one goal. It may take many goals. Whichever is the case, use the rest of the ordered goals list as it is, once everyone has at least one goal represented. After the latter has occurred, it is no longer necessary to go through the entire list, refiguring partial sums.

It should be reiterated that this is only an option which can be used if resources are not a problem, i.e., if there are sufficient resources that the time and energy investment will not use up too many of these resources. For example, the example and matrix provided here are very simplistic. Chances are, there would be many more goals and many more persons and the aid of a computer would be needed to actually implement this prioritization procedure. This, too, then becomes a factor. In reality, this option would rarely, if ever, be employed.

This completes the discussion of the Goals Process as it currently exists in the Fortune/Hutchinson Evaluation Methodology. Had the practitioner reached this point, he would proceed with the evaluation.

C H A P T E R I V

IDENTIFICATION AND PRIORITIZATION OF GAPS

Identification of Gaps

Once the Goals Process was fully documented at its current state of development, it was possible to proceed to the second purpose of this dissertation: the investigation of the gaps in the Goals Process in F/H. A "gap," it will be remembered, was defined in the Statement of the Problem in Chapter I as an "interruption in continuity." (Cf. Chapter I for a full discussion of the term "gap.")

This investigation was multidimensional:

1. Identification of gaps in the Goals Process.
2. Prioritization of gaps in the Goals Process.
3. Development and field testing/or field testing and development of the prioritized gaps.

The investigator planned to accomplish the first task in the following way. The entire Goals Process methodology was to be reviewed by the investigator who would test it for its logical gaps. The purpose of this was to identify all the gaps possible to identify. This identification would occur on several levels of specificity. First, the gaps were to be identified on the "Elemental" level. An element, as defined in the previous chapter, consists of a single major step and its substeps. Thus the methodology for Case I contained nine elements. This level of the investigation sought to answer these questions:

1. Is there a missing link between the first element and the prior process(es) in F/H?

2. Are there missing "elements" between elements?

3. Is there a missing link between the last element and the succeeding process(es) in F/H?

4. Are the elements logically sequenced?

The next level of the investigation was to be done between steps and series of steps and the same types of questions were to be applied to individual steps and series of steps: are there missing steps between preceeding and succeeding steps for each individual step and series of steps; are the steps logically sequenced; are there missing steps? Finally, within each step, the same questions were to be applied to the substeps of the individual step, for individual substeps and series of substeps.

The result of this three-level investigation of logical gaps should result in a list of gaps, from the perspective of the investigator, in the Goals Process. However, this process was considered neither thorough enough nor complete enough a process to identify gaps and so it was decided to also employ the concept of testing for completeness (detailed in the previous chapter). To test for the completeness of this list of gaps from the perspective of the investigator, three methodologists and one "naive" person were to be employed. They would replicate the same investigatory process from their individual perspectives. A "methodologist" would be a person who had had training and/or experience in the methodology of evaluation, specifically the F/H Methodology. The "naive" person would be someone with no knowledge of methodology, evaluation methodology or F/H. Each of the four would be asked to identify gaps in the methodology on the same three levels of specificity as would the

investigator. In addition, they would be asked to be as complete as possible in doing this.

This testing for completeness would produce four tests of completeness, one from each of the four persons. However, as with testing for completeness in the Goals Process itself, it was assumed that all these identified gaps would not be adopted in their entirety. Rather a procedure similar to that of step 5.0 in Case I was to be employed. That is, the investigator would react to each identified gap in the same systematic fashion the decision maker would use to react to the test of completeness list of goals when it is presented to him. Each gap would be seriously considered to see if it were indeed a gap from the point of view of the investigator; to see if it were a gap previously identified; to see if it were not a gap; or to see if it were a stimulus, causing a new gap(s) to be identified.

This would be done for each gap identified by each of the four persons acting as a test of completeness to the investigator. The resultant product would be a "complete" list of gaps in the Goals Process.[1]

Prioritization of Gaps

The following procedures were planned to be followed in determining which gaps in the Goals Process of the F/H Evaluation Methodology this investigation would consider further. Following that part of the

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[1]Complete appears in quotation marks because it is not meant to be an absolute. An absolute list of gaps would never in reality be possible to reach since theoretically it would be possible to go on identifying gaps almost infinitely. Complete is a relative term and implies complete in the practical sense of the use of available resources, sufficient for the purpose of the investigation.

investigation dealing with the identification of gaps, a sorting and prioritization of these gaps would be done.

Sorting, which is one form of prioritization, would be done to separate minor gaps from major ones. It was obvious before gaps were identified that some gaps would be of less importance than others and this was the reason for the initial sorting.

Minor gaps would be separated from major gaps in this initial sorting procedure. Minor gaps would consist primarily of grammatical errors, gaps of simple omission, phraseology and so on. It was planned to make all these minor changes in the process without first testing them because the primary function of these changes was to clarify, not generally or greatly modify, the overall process. Because of this these gaps would not be prioritized since they would all be implemented.

After sorting out all the minor gaps, a list of major gaps would remain. These gaps would have to be prioritized because many many major gaps would be identified, producing too lengthy a list of gaps with which to be concerned within the scope of one study. The focus of the investigation would therefore have to be more limited than it would be if the entire list of major goals were used.

A decision was made to prioritize these major gaps, following which methodological development would be done for the highest prioritized Gap. This gap would be field tested and depending upon the results, either additional methodology would be developed for it, or the second prioritized gap would be selected and field testing done on it. This decision could not be made, though, until the first field test was completed. This latter decision was necessitated because of not wanting

to get overcommitted to too much work, i.e., "biting off more than one could chew."

The major Gaps would be prioritized according to several predetermined criteria set forth by the investigator. These criteria would be:

1. The interest of the investigator. This is considered to be the most important criterion in that interest dictates motivation and dedication, without which this investigation, nor any investigation, would ever be completed.
2. The significance of the gap. Obviously some gaps would be more significant to the development of the Goals Process than others. The investigator would subjectively make a decision on the gaps as to their importance (significance) to the overall methodology, i.e., which one(s) would lead to a more complete and viable methodology.
3. Criterion number two would imply criterion three: limitation of the investigation to Case I of the Goals Process only. Cases II and III, as has been pointed out, are actually variations on a theme. Thus the investigator felt that filling a gap or gaps in Case I would automatically do the same for the other three sets of procedures and thus Case I would be considered the more important one to be studied. Dealing with Case I would be more important to the development of the methodology than dealing with parts of the other

Cases. Thus the investigation would be limited to Case I. These three criteria then were to be applied to the major gaps once all the gaps were identified.

The Results of the Process for Choosing Specific Gaps for Investigation: The Minor Gaps

The identification of gaps process was implemented. Following this, the sorting part of the prioritization process was implemented and minor and major gaps were sorted out. This section of the chapter deals with the minor gaps. It had been decided, as described above, that because of the nature of the minor gaps, they would all be filled without first field testing them. These changes were made and appear in the appendix in the Revised Goals Handbook, Case I.

Because the material which follows is presented in a somewhat unusual format, a word of explanation should proceed it. On the left hand half of the page, the entire Goals Process methodology for Case I is given. Where minor gaps occur in that methodology, they are presented on the right half of the page. Minor gaps are numbered consecutively within each of the nine elements of the methodology. They appear next to that part of the methodology where they occur. If there are no comments, or blank spaces occur at places on the right half of the page, this would mean that no minor gaps were identified for that particular part of the methodology.

Minor Gaps: Case I only

Element I: Orientation Element This is the element which directs the evaluator to the proper set of goals procedures to use, depending upon the nature of the decision maker with whom he is working.	Nature of the Gap This element needed a title. The title given should be "Orientation."
Element II: Initial Identification 1.0 Ask the decision maker to respond to the following stimulus either by writing or tape recording: What do you really want (the enterprise) to be and to accomplish? What do you really want (the enterprise) to accomplish for yourself and for others? The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise," as is appropriate for the given enterprise under consideration.	1. Add a note about "These are separate questions but a single stimulus and if the first question does not seem appropriate, then the second, a paraphrase of the first, may be appropriate." This should be a note in parentheses. 2. After "really want," add "or intend."

2.0 Perform a goal analysis on the results of 1.0.

2.1 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line.

2.2 Eliminate redundant goal statements. A redundant statement is one which contains the exact same words as another statement.

Element IV: Test of Completeness

3.0 The evaluator develops alternative lists of goals from selected enterprise documents, identifying the sources from which they come.

1. Element IV

   Is this step always done even if only in an abbreviated form, e.g., if there are no resources? There should be a note here to that effect.

2. Step 3.0

   (a) Add, "...by identifying in writing and by labeling...."

   (b) Make "lists" singular, "list." Only one list will be made.

3.1 Determine how many resources-time, money, staff-are available to devote to this activity.

3. Substep 3.1
A more complete list of resources might be operationalized and listed.

3.2 Choose the primary written document which would be a major source of enterprise goals. If this is unknown to the evaluator, ask the decision maker which document the enterprise has produced which would be a major source of goals.

3.3 Perform a good analysis (cf. 2.0) of this selected enterprise document.

4. Between Substeps 3.2 and 3.3
Add a new step. This step would be: In the document identify statements which appear to indicate what someone wants (the enterprise) to accomplish for self/for others.

3.3.1 Goals occur through out such documents and it should not be thought that 3.3.0 applies to just a section of the document that might be labeled "goals" or "objectives."

5. Substep 3.3.1
Move this step up as a note under the new step between 3.2 and 3.3. It would no longer be a step, just a note.

3.4.0 After completing this goal analysis for this primary document, determine the amount of resources remaining to devote to continuing this activity.

6. Substep 3.4.0
Might add, after "...this primary document," "...and if (say) this primary document produced more than 10 goals, then determine the amount...."

3.4.1 If resources still remain, then examine another major written source of enterprise goals. This second major document need not be solicited from the decision maker but might be chosen by the evaluator or by other enterprise personnel at the discretion of the evaluator.

7. Substep 3.4.1
(a) Add, after the last sentence.
(Cf. 3.4.2 below for an exception.)
(b) After the word "remain" in the first sentence, add "...and if 3.0 produced (say) 10 or more additional goals...
(c) Change "examine" to "choose."

3.4.2 If going through the primary document procedures fewer than (say) then additional goals, then this activity is not very useful and the evaluator would not proceed with 3.4.1 namely any other documents.

8. Remove Substep 3.4.2

Element V: Test of Completeness

4.0 The evaluator develops alternative lists of goals by repeating 1.0 for other decision makers of the enterprise, that is, for other

1. Step 4.0
(a) Line 2, after "repeating," add "...the process outlined in ..."

people or groups of people in the enterprise who are decision makers but not the primary or most important ones. (This is not done if the evaluator has this material as a result of a prior step.) The evaluator identifies the source(s) unless the source(s) (other decision maker) wishes not be be publically identified. If so, his list would be used but the source would be noted as a person in the enterprise rather than by his name, title, rank, etc.

4.1 Determine how many resources--time, money, staff--are available to devote to this activity.

4.2 Choose this other decision maker(s) in the enterprise who is likely to have goals other than the ones the primary decision maker is likely to put down. The primary decision maker may suggest to the evaluator such another decision maker whose goals he is interested in seeing.

(b) Line 2, after, "that is," add "...he elicits a goals list(s)...."

(c) After, "sources," add, "... of the alternative goals list(s)...."

2. Substep 4.2

After "seeing" in line 9, add, "...or reacting to..."

4.3 Perform a goal analysis (cf. 2.0) on this other decision maker's goals.

4.4.0 After completing this goal analysis for this other decision maker(s), see how many resources remain to devote to this activity.

3. Substep 4.4.0
(a) Change "see how many resources remain" to "determine the amount of resources remaining..."
(b) Change "to devote to this activity" to "to devote to continuing this activity."

4.4.1 If resources still remain, then repeat this process for another decision maker within the enterprise. This second decision maker or group of decision makers need not be solicited from the decision maker but might be chosen by the evaluator.

4. Substep 4.4.1
After "remain" add, "and if 4.1-4.3 produced (say) 10 or more additional goals...."

4.4.2 An alternative to 4.4.1 would be to develop an alternative goals list from decision makers from a separate but similar enterprise, which enterprise could either be chosen by the decision maker or lacking a desire on his part to do so, by the evaluator.

5. Substep 4.4.2
Make this a note to substep 4.4.1.

4.4.3 If going through this process with the first decision maker(s) described in 4.0 procedures fewer than (say) 10 additional goals, than this activity is not a very useful one and the evaluator would not proceed further than with this particular person(s).	6. Substep 4.4.3 Remove this substep.
Element VI: Presentation of Tests of Completeness	
5.0 Ask the primary decision maker(s) to react/respond to the alternative lists of goals resulting from 3.0, documents, and 4.0, other decision makers, by asking him to consider if the goals are ones he has thought of, or holds, for his enterprise.	1. Step 5.0 Delete the words "has thought of or..." Step 5.5 should be included in 5.0 here as a note. 5.0 should be done for each goal.
5.1 If the decision maker considers a given goal statement to be one which he holds for the enterprise, it should be added to his list of goals.	2. Substep 5.1 (a) "The evaluator would now add to it a 'list of goals' which he would start at this point." This or something like it should be added since the directions are not really given as to what should be done.

(b) After "enterprise," add, "...and it has not already been identified...."

5.2 If the decision maker considers the goal statement to be one which he does not hold for the enterprise, it should not be added to his list but simply rejected.

3. Substep 5.2

(a) Between the words "simply rejected" insert the word "be."

(b) Add, after "...rejected." "Cross it off the list."

5.3 If the particular goal statement stimulates the decision maker to think of additional goal statements, these should be added to his list at this point.

4. Substep 5.3

Comment (a) for 5.1 holds here.

5.4 If one of these steps causes the decision maker to wish to modify one of the goal statements on his list, then do so.

5. Substep 5.4

(a) Add, after "then" "the evaluator makes the appropriate changes."

(b) Delete the words "do so."

5.5 These steps should be done for each and every goal statement from the alternative lists developed.

6. Substep 5.5

(a) This should be moved up above and changed. See comments under 5.0 above.

(b) "These steps" is incorrect. Change this to "at least one of these steps."

Element VII: Internal Test of Completeness

6.0 Perform the Activities Test of Completeness.

1. Element VII

   Delete the title listed above step 6.0. It is not appropriate and is in fact misleading.

2. After Step 6.0

   Add a new step after 6.0. Determine the resources....If no resources this step is eliminated, etc.

(NOTE: This note about if no resources this step should be eliminated should appear in all the non-essential Goals Process steps, i.e., all those steps which do not qualify in the shortest goals procedures discussed at the end of the Goals Chapter, III.)

6.1 The decision maker is asked to make a list of activities, i.e., things that he does, that the enterprise does during the course of the ongoing enterprise.

6.2 After making up such a list,

for each activity contained on it, the decision maker asks himself the question: Why do I (we, the enterprise) do that?

6.3 The decision maker then relates each reason resulting from 6.2 above to a goal or goal statements resulting from the first five steps of the identification process, so it results in a complete cross-check of what goals relate to what activities and what activities relate to what goals on their respective lists.

6.3.1 For each and every reason that does not relate to at least one goal, the evaluator points out the discrepancy to the decision maker. The evaluator then might do two things: (a) ask the decision maker whether in fact he does have a goal for the activity and if he does, add it to the list; or, (b) ask the decision maker if that activity is still an activity he wishes to pursue.

3. Substep 6.3.1
(a) Add, after "if he does," in line 9, "...the evaluator would...."

6.3.2 For each and every goal on the goals list for which no activities are related, the evaluator points out this discrepancy to the decision maker. The evaluator again does two things: (a) ask the decision maker if he does indeed have activities he (the enterprise) is doing and if so, add these to the activities list, or (b) if he does not have any activities, ask if this is not then a goal he holds and if it is, add it to the goals list.

4. Substep 6.3.2

(a) Line 7, change "ask" to "asks."

(b) Part (b) is wrong. It should read: if they do not have any activities, ask if this is a goal which they really hold and if it is not, remove it from the goals list.

Element VIII: Commitment Element

7.0 The decision maker, one last time, goes through the entire goals list from steps 1.0 through 5.0, as amended or modified by the test of completeness, 6.0, and for each and every goal statement on that list, he seriously reconsiders it and commits himself before proceeding with the data collection on goals.

1. Step 7.0

(a) Add, in line 3, after "goals list," "...which has resulted...."

(b) Line 3, after 5.0, add "and."

(c) Line 7, change "he" to "decision maker."

(e) Change "the data collection on goals..." to "the next step in the evaluation."

7.1 If he still holds the goal in the form in which it is written,

2. Substep 7.1

Change "he" to "the decision

nothing more is done to it at this point.	maker."
7.2 If he no longer holds a given goal for the enterprise, it is deleted.	3. Substep 7.2 (a) Change..."it is deleted" to "the evaluator removes the item from the list of goals." (b) Change "he" to "the decision maker."
7.3 If he still holds a goal for the enterprise but feels the wording or intent should be modified, then make those modifications as he feels is appropriate.	4. Substep 7.3 (a) Line 4, change "make" to "...the evaluator makes...." (b) Lines 1 and 5, change "he" to "the decision maker." (c) Delete "as." (d) Change "is" to "are."
7.4 If he thinks of any goals that are not included on the list, add them.	5. Substep 7.4 (a) Change "he" to "the decision maker." (b) Line 2, add, after "list," change "add them" to "the evaluator adds them to the list...."
Element IX: Prioritization Element	
8.0 The decision maker now	1. Step 8.0

prioritizes his list of goals resulting from steps 1.0 through 7.0, the goals identification and test of completeness procedures. He does this by choosing kinds of prioritization criteria which have been suggested to him by the evaluator or ways of prioritizing that he suggests as alternatives to those presented by the evaluator.

(a) Line 8, after "evaluator," add "(Cf. criteria below.)

(b) Add a new paragraph here. Example: The evaluator should explain to the decision maker the options available in this reacting process. He should also point out that they do not have to simply choose from the list but can at any time during this step make changes, etc.

2. After 8.0, New Step

Add a new step after 8.0. Determine the resources, ...If none, eliminate certain parts of this.

8.1 Prioritization on the basis of a Preference/Importance Criteria. If the decision maker chooses this criteria, then:

The decision maker rank orders the goals in terms of the goals most important to him, assigning a rank of 1 to the goal most important to him, a rank of 2 to the second most

important goal to him and so on.

8.2 Prioritization on the basis of a Chronological Criteria. If the decision maker chooses this criteria, then:

The decision maker rank orders the goals in terms of their order of occurrence in time, assigning a rank of 1 to the goal which will occur first in time, a rank of 2 to the goal occurring next in time after 1 and so on.

8.3 Prioritization on the basis of a Cost/Risk Criteria. If the decision maker chooses this Criteria, then:

The decision maker rank orders the goals in order of their probability of failing, assigning a rank of 1 to the goal with the highest probability of failing, a rank of 2 to the goal with the next highest probability of failing and so on.

8.4 If the decision maker has chosen only one of these criteria of prioritizing or still another of his own suggestion, the prioritization is completed. If, however, he has chosen more than one set of Criteria, then there must be a way of arriving at a final prioritization list. That is, the criteria, if more than one, need to be completed.

3. Substep 8.4

(a) Line 5, after "completed." Add a new sentence, "The evaluator would then proceed with the next step in the evaluation process."

(b) In line 3, delete the word "still."

(c) The last word should be "combined" not "completed."

(d) After the word "one" in line 10, add the phrase "has been used."

8.4.1 The decision maker simply picks the first ranked goal off the criteria which he now chooses as more important than the other(s).

3. Substep 8.4.1

Change the whole working: "The decision maker prioritizes the criteria he has used (if he has used more than one) and then he simply chooses the goal ranked one on this most important criteria. The second goal would simply be the first ranked goal on the next most important criteria and so on.

8.4.2 Prioritization is done on the basis of adding together

5. Substep 8.4.2

(a) Change, in line 9, "Those"

rankings on the different criteria.

The decision maker orders the goals lists as in 8.1, 8.2, 8.3 or any other order he may have used. Each goal will have received more than one rank if more than one ranking criteria was used. Those ranks are then added together and the one receiving the lowest total is assigned a rank of one, the goal with the next lowest total receives a rank of two and so on.

In the event of tied ranks, i.e., if more than one goal receives the same rank number, the decision maker is asked to decide which of the ranking criteria used he considers to be the most important. The tie is broken then on the basis of the tied one with the highest rank on the most important criteria.

8.5 The decision maker is asked to examine the final prioritized list arrived at through this prioritization process, 8.0

to "These."

(b) In line 17, after "rank number," add "after combining ranks...."

(c) Add to the very end, "... being chosen."

(d) Next to the last line: change "one" to "goal."

6. Substep 8.5

(a) Change, in line 6, "operationalization," to "simply proceed with the next step in

through 8.4 and to decide if this list represents a reasonable order in which to proceed, i.e., operationalization. If he responds positively, the evaluator proceeds with operationalization. If he responds negatively, the prioritization procedure is repeated. (That is, the decision maker is allowed at this point to recycle if he feels the result of 8.0 is unsatisfactory.)

the evaluation process."
(b) Delete the parentheses in the last sentence.
(c) Add a sentence to the effect that minor changes may be made but if general dissatisfaction exists, recycle... etc.

The results of the Process for Choosing Specific Gaps for Investigation: Major Gaps

After separating all the minor gaps from the major ones, the investigator proceeded to order the major gaps remaining according to the criteria set forth earlier in this Chapter. These criteria were to be applied in the following fashion. Once all the minor gaps were separated from the major ones, a lengthy list of major gaps would remain. The three priorization criteria of interest, importance and Case I would be applied to each gap on this list. That is, if a gap met all three criteria, it was to be put on a new list entitled, "Prioritized Gaps." Initially, gaps were to be entered on this list in the order in which they were identified in the methodology. It was expected that not many gaps would meet all three criteria and thus the list was expected to be fairly short.

After this process had been applied to each major gap a prioritized list of a few major gaps would result. This list would still be too lengthy to deal with so it was determined to re-"Prioritize" the "Prioritized" list.

The sole criteria to be used here would be interest of the investigator. Once this had been done, the highest prioritized gap of this re-prioritization would become the part of the methodology to be tested first.

This process was implemented. Eleven major gaps met all three criteria. These eleven gaps were then re-ordered based on the interest of the investigator. This section presents those prioritized gaps.

Gap I: Element III, step 2.0: The Goal Analysis Procedures: This major gap is comprised of four points raised about the existing goal analysis procedures. This is prioritized as Gap I based on the pre-specified criteria. The goal analysis procedures occur in several places in the methodology and solving it in one place would have immediate generalizability to these other occurrences.

Element III: Goal Analysis Procedures	Nature of Gap
2.0 Perform a goal analysis on the results of 1.0.	1. Operationalize, possibly, into steps, or some other appropriate procedures.
2.1 Break down multiple goal statements into single goal	2. Define "single goal statement."

statements, resulting in a list of goals with one goal per line.

2.2 Eliminate redundant goal statements. A redundant goal statement is one which contains the exact same words as another statement.

3. Additional directions are needed.
4. The whole notion of implied goals is currently omitted.

Gap II: Element I, step 0.0: This major gap is comprised of several smaller gaps identified in this part of the methodology. The smaller gaps are presented here in two parts, one dealing with the overall element and the other with the specific major step, 0.0.

Element I	Nature of the Gap
The first Element is the whole Orientation Element and it serves to direct the evaluator to the appropriate set of goals procedures.	1. What is the transition or link with the preceding step in F/H? 2. What is the preceding step? 3. When has prioritization of decision makers been done? 4. When has identification of decision makers been done?
Step 0.0 Determine who the first priority decision maker is to be, i.e., the	1. How does one "determine?"

person(s) for whose decision making purposes data is to be collected. If this first priority decision maker has already gone through the goals process, then determine who is the next highest priority decision maker who has not already gone through the goals process and deal with him (them).

2. What are the steps for determining?
3. What are the criteria for establishing the nature of the decision maker?
4. If the reader (practitioner) is starting here, how does he know what "first priority" is? Where/how is this explained to him?
5. There should be a prestep here perhaps, introducing and defining behavior, a la Gordon (1972).

Gap III: A Combination/Replacement of Several Steps: This would incorporate a major change in the Goals Process methodology dealing with the possibility of doing the tests of completeness (3.0 and 4.0), combining these with the goals elicited in 1.0 and then doing a single goal analysis. This would then be presented at one time to the decision maker. This would logically seem to conserve resources in the Goals Process.

Gap IV: Addition of a step between 4.2 and 4.3, eliciting goals from others and doing a goal analysis of these goals: This gap stems from the need for a new step 4.3. This new step would be something like: "Ask the stimulus question. Record the answers." More detail and directions

are needed because the methodology is too vague at this point.

Gap V: Element VI: step 5.0: Presentation of tests of completeness and goal analysis of the initial decision maker statement: This gap would specifically address these points:

1. A need to detail out the process.
2. A need to give more specific directions of presenting it and for eliciting a response from the decision maker.
3. What does one do if the decision maker says he has thought of a goal? The wording needs to be changed.
4. There should be provisions for explaining to the decision maker(s) what the evaluator is doing and why.

Gap VI: Element VII, step 6.2: In the activities test of completeness, asking the decision maker to ask himself why each activity is done. Specifically, this would address two points:

1. What directions should the evaluator give? There should be some directions.
2. What does the evaluator do with the output? Write it down? How? Where?

Gap VII: Element VII, step 6.3.1: Pointing out discrepancies, if any, to the decision maker where activities do not relate to goals. This gap would consist of two points also:

1. In (b) something should be said about what not to do, e.g., if the decision maker says "no" then...; if he says "yes," then....Also, if he says yes, does it then become a goal and is it added to

the list?

2. What is the difference between "reason" and "activity?"

Gap VIII: Element IX: Prioritization. This would deal with the possible addition of a new step which would be: "Prioritization on the Basis of Other Criteria." In this option of prioritizing, the decision maker would offer his own prioritization procedures. The details of this would have to be worked out.

Gap IX, Element VIII, step 7.0: The commitment step. This gap would be concerned with the awkwardness of the phrase, "...one last time." This is too fuzzy and vague to have any meaning and causes some ambiguity in the step as it exists.

Gap X, Element IX, step 8.4.1:	Nature of Gap
The decision maker simply picks the first ranked goal off the criteria which he now chooses as more important than the other(s).	This wording of these directions is extremely awkward and therefore very misleading. This gap would therefore be concerned with

these two points:

1. "Off the criteria," would have to be further explicated.
2. The existing step should be changed to specific steps, e.g.,
   - .1 The decision maker rank orders the criteria.
   - .2 The decision maker chooses the number one goal from the list based on the highest priority criteria.

Gap XI: Element IX, step 8.4.1 (above). This gap is related to the one above and would deal with the problem of what directions should be given, and where, for directing the evaluator to go back to the #2 goal on the #1 criteria. At present, there is no provision for what to do after all the #1 goals have been picked from the ranked criteria lists.

This is the prioritized list of major gaps, with their subproblems as a result of the prioritization of re-prioritization process. Once the eleven most important major gaps had met the three criteria and been reordered based on the investigator's interest, a very lengthy list of major gaps still remained.

It was noticed that several additional gaps, while not meeting the three prioritization criteria, were of great importance to the methodology. The investigator, while not wanting to include these on the prioritized list, did want these gaps to be pointed out to other methodologists. These three important gaps are presented here.

Some Other Important Major Gaps in the Goals Process

Gap I, Element II:	Nature of the Gap
1.0 Ask the decision maker to respond to the following stimulus either by writing or tape recording:	The gap which arises here deals with the problem of how does one establish rapport with the decision maker relative to performing this step? The evaluator can't just walk in and "Ask the decision maker...." There should be an introductory paragraph orienting, the evaluator to this
What do you really want (the enterprise) to accomplish for yourself and for others? The evaluator substitutes the name of the enterprise, e.g.,	

Project Upgrade, for the words "the enterprise," as is appropriate for the given enterprise under consideration.

situation, or defining entering behavior for him.

Gap II, Element II, step 1.0. This gap would group together several smaller points also related to step 1.0 above. These would be, in question form:

1. What is the level of interaction between the two (or more) people, i.e., the evaluator and decision maker(s)?
2. How much cueing should the evaluator do?
3. Should caution about not just giving objectives but assuring that some how intents be given?
4. How does the decision maker respond? Under what conditions?

Gap III, Element IV, Test of Completeness	Nature of the Gap
3.1 Determine how many resources-time, money, staff--are available to devote to this activity.	This gap is probably one of the most important in terms of the overall

methodology. It occurs in almost every step of the Goals Process and is thus central to the methodology. Determination of resources is also one of the vaguest steps in the methodology. The reason why it does not occur higher on the list of priorities, given its importance to the methodology, is that it did not meet the criteria of "interest" set forth as being one of the criteria for selecting and prioritizing gaps. The

basic problem would be: how does one determine resources and how does one allocate resources to tasks in the methodology?

This section of Chapter IV has dealt with those gaps that were prioritized according to the criteria set forth in the earlier section of this chapter. The remaining gaps from the gaps list were not prioritized, i.e., did not fit one of the criteria of importance, significance or generalizability to the rest of the methodology. These are presented in the appendix in the order in which they occur in the methodology. Having identified and prioritized gaps, the investigation proceeded with the testing and development of methodology for the highest prioritized gap.

CHAPTER V

GAP I: THE GOAL ANALYSIS PROCEDURES

The goal analysis concept is frequently employed in the Goals Process. The rationale for its use is fully detailed in Chapter III. The first time a goal analysis is performed, it is done on (the output of step 1.0) the initial goal statement of the decision maker. It is important that the goal analysis process be a reliable procedure or set of procedures. If a procedure can not perform consistently when applied by different evaluators, it can not be (or is not) reliable. And since reliability is essential for a procedure to be valid, it is necessary to assess the reliability of the goal analysis procedures. If the statement is not properly analyzed, then the list of goals to which the decision maker later commits himself, and which serves as the basis for continuing with the evaluation, will not be as complete nor as focused as it should be. This, in turn, would cause the evaluation to be less complete and less focused than it might otherwise be.

It is also more important to have a reliable process here than in the goal analyses performed in the tests of completeness. The tests of completeness, as explained earlier, are stimuli, whereas the initial output of 1.0 will contain the decision maker's personal intents, and it is important that none of these be overlooked, left out, nor confounded in a multiple goal statement form. The "completeness" of the tests of completeness materials is not as important, for this reason, as the "completeness" of the goal statements which originally come from the decision maker.

The immediate problem, then, was to determine the degree of reliability of the goal analysis procedures, as slightly modified. To date, no such determination had been made despite the fact that the whole goals process had been field tested at several levels of detail and sophistication (Benedict and McKay, 1970; Hodson and Watts, 1971; Gordon, 1973).

From the identification of gaps phase of the investigation, it was hypothesized that a gap did exist in the goal analysis procedures, i.e., the goal analysis procedures were hypothesized to be "somewhat reliable," or "less than reliable." This is obviously a fuzzy concept but was operationalized to mean simply that the existing goal analysis procedures were not, themselves, fully operationalized.

It should be noted that there are potential problems in having a fully operationalized set of goal analysis procedures. Such a set of procedures would amount in fact to a content analysis problem and such procedures, where they do exist, are typically extremely complex, breaking content down into grammatical categories and then combining and recombining kernals and elements into various combinations. Nouns, verbs, objects; noun phrases, verb phrases; kernal sentences; conjunctions and marks of punctuation: these are the concepts or terms of content analysis and they bring the practitioner to a level of grammatical and syntactical analyses. The latter is better handled by linguists and this investigator does not pretend to be a linguist. Rather he is concerned with methodological considerations. Therefore, he is concerned with that aspect of the procedures provided for by Metamethodology and the law of parsimony. So, for example, he is more concerned that the

procedures developed be no more complex than is necessary. If "vague" instructions, in conjunction with training and/or instruction, are sufficient for strong reliability, then it is not wise to develop more complex procedures to increase that reliability by a small factor. However, it was not known just how reliable or unreliable the existing procedures were. Therefore, rather than develop more complex procedures, or operationalize further goal analysis procedures, it was decided to test the reliability of the existing procedures.

Field Testing the Goal Analysis Procedures

The investigator therefore set about to design a decision oriented field test.[1] Using Metamethodology as the procedure for doing methodological research, a statement of the purpose was made. The purpose of the field testing of this piece of the goals process was: to determine how reliable a procedure is the current goal analysis procedures applied to a statement of intent of a decision maker. Next, an examination of the implications of this purpose was done. The implications of this purpose for a field test would consist of at least four major categories.

First, a statement of intent of a real decision maker would be needed. This, in turn, would imply several things. Such a statement should come from an actual decision maker. It would need to be of sufficient length: more than a couple of sentences but less than a couple of pages. The statement should not be too complex but complex enough to allow the investigator to see if, and how well, the procedures

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[1]Field testing in decision oriented research and in Metamethodology are fully described in Chapter II. The reader is referred to that point if it is felt a review of that concept is necessary.

work. The statement could be in the form of a list, a written textual format, or a narrative as long as it was to be presented exactly as it had come from a decision maker.

In compliance with the law of parsimony in field testing, the first statement of intent to be found which would meet these criteria was to be chosen. A more elaborate process would have been dysfunctional and would also have been an inefficient use of resources. (Cf. Chapter II, for the full justification of this rationale.)

The following is a statement of intent of a decision maker for an enterprise and is the first statement encountered to meet the specified criteria. The decision maker is a School Social Worker and this statement represents his goals or intents for his enterprise, a Pupil Personnel Services Program at a certain school.

> To measure the abilities of children in scholastic difficulty by means of testing and consultation in order to help develop group and individualized programs that will as nearly as possible meet the potentials of such children. To offer counselling to children who feel that they have problems (scholastic, emotional, interpersonal) in order to eliminate or reduce such problems in order that they may function more meaningfully. To be observant and recognize those children who are emotionally unable to function, or who are dysfunctioning, in order that appropriate school counselling can be initiated and/or referral to an outside source. To be aware if school programs, professional personnel or administrative decisions are negatively affecting children. To offer consultation, suggestions, etc., to professional staff in order to reduce student related problems or prevent them from developing. To consult with parents in order that they may understand their children's problems and help in meeting needs that the situation indicates.

The second set of implications from the purpose of the field test would be that "evaluators" are needed. This in turn implies several

things. First, the evaluators to be chosen must not have seen the statement of intent previously. Second, the evaluators to be chosen should represent a range of expertise in evaluation methodology: very experienced to little or no experience. "Evaluators" would be defined as persons who would apply the goal analysis procedure, as would an evaluator in actual practice, to the identified statement of intent. "Evaluators with expertise" would imply persons with training and experience in the Fortune/Hutchinson evaluation methodology.

It was decided, somewhat arbitrarily, that four evaluators would be needed, based upon four categories of expertise:

1. very experienced: a person with classroom training and much experience with F/H.
2. moderately experienced: a person with classroom training and some field experience.
3. little experience: a person with classroom training only in F/H, no field experience.
4. no experience: a person with no familiarity with F/H.

Again, in keeping with the law of parsimony, the first four persons who meet these "evaluator" criteria would be chosen to participate in the field test. Four such persons were identified and, when asked, agreed to participate in the field test.

A third set of implications deals with the need for a reliable procedure. The existing procedures (cf. step 2.0 in Case I, Chapter III) were deemed to be definitely incomplete. Thus some modification was called for even before field testing could begin. These modified procedures would be tested for reliability. This would imply that the

products of the four separate applications of the procedures on the same statement would have to be compared to "criteria" to see how well each had met the criteria. A decision would then need to be made as to the adequacy of the level of reliability with the criteria referenced test. The modified procedures as they were to be given to the "evaluators" are presented below:

> Perform a Goal Analysis on the decision maker's statement of intent.
>
> 1. Break down multiple goal statements into single goal statements, resulting in a list of goals with only one goal per line. A multiple goal statement is one containing more than a single intent, aspiration, goal or purpose.
>
> 2. Eliminate redundant goal statements. A redundant goal statement is one which contains the exact same words as another statement.
>
> 3. For each goal now listed, identify and write down the implied goal(s) is any. An implied goal is one which can be considered as a prerequisite of the stated goal. (For example, if a goal is "to implement an affective curriculum," one goal implied by this is "to develop an affective curriculum.")

In addition, a cover sheet of introduction, explanation, and directions accompanied the procedures. This material is given below:

1 December 1972

> I want to thank you for helping me by agreeing to be part of a field test I am doing for my dissertation. I would like to stress the importance of the results of this field test to me (and of course, to my dissertation) and would ask you to be as complete and thorough as you can be.
>
> What you are going to do is to perform a "goal analysis" on an actual statement of intent (a statement of goals) of a real decision maker for a Pupil Personnel Program. Please apply the goal analysis steps to the statement provided by doing to that

> statement what the steps ask you to do. (The steps are self-explanatory. If they are not as self-explanatory as you would like, please, still try to do the best you can.) You can do your analysis on the lined pad of paper provided.
>
> I only expect you to perform at your own level of experience. I realize that different people have different levels of experience and this is important to the results of this field test.
>
> Please be as complete as possible. Return the analysis to me when you can but I would really appreciate it if you could get it to me by about 12 December. Again, thank you very much for your help. I will gladly return the service in kind.

No additional instructions were given.

The criteria to which the products of the four applications would be applied was to be the result of an application of the goal analysis procedures to the same statement of intent by the investigator.

The investigator was aware that he was not "perfect" and so it was planned to review the content of the four field test products and to compare these to the criteria to insure that the criteria was complete. This would be done by the following procedures:

1. Take each goal statement, one-by-one, of the four field test products.
2. Go to the original statement of intent.
3. Ask the question, "Is this goal an actual, in-fact, intent embodied in this statement that the investigator, for whatever reason, excluded from the criteria list?"
4. Any "yes" answers to step three were to then be added to the criteria list before computing accuracy.

As a result of these steps, five goal statements were added to the criteria list.

The following are the goal statements resulting from an application of the goal analysis procedures by the investigator to the statement of intent of a decision maker. This product is considered the criteria since the investigator is supposed to have more expertise in dealing with the goal analysis procedures than does any other person. Thus an application done by him should be the most complete goal analysis done by anyone in the field test.

The procedure employed was to take the goal analysis procedures as slightly modified, apply it to the statement of intent of a School Social Worker, and to consider the product of this process as the criteria to use in the field test. The procedures and statement of intent are the same ones given to each of the four persons in the field test.

Criteria used in assessing the results of the field test of the goal analysis procedures.

(These are numbered only for convenience in reading and reference.)

1. To measure the abilities of children in scholastic difficulty.
2. To measure the abilities of children in scholastic difficulty by testing.
3. To measure the abilities of children in scholastic difficulty by consultation.
4. To help develop group programs that will meet the potentials of children in scholastic difficulty.
5. To develop group programs that will meet the potentials of children in scholastic difficulty.

6. To help develop individualized programs that will meet the potentials of children in scholastic difficulty.
7. To develop individualized programs that will meet the potentials of children in scholastic difficulty.
8. To meet the potentials of children in scholastic difficulty.
9. To offer counselling to children who feel that they have scholastic problems.
10. To offer counselling to children who feel that they have emotional problems.
11. To offer counselling to children who feel that they have interpersonal problems.
12. To eliminate the scholastic problems of those children who feel that they have scholastic problems.
13. To eliminate emotional problems of those children who feel that they have emotional problems.
14. To eliminate interpersonal problems of those children who feel that they have interpersonal problems.
15. To reduce the scholastic problems of children who feel that they have scholastic problems.
16. To reduce the emotional problems of children who feel that they have emotional problems.
17. To reduce the interpersonal problems of children who feel that they have interpersonal problems.
18. That children function more meaningfully.
19. That children in scholastic difficulty function more meaningfully.

20. That children in emotional difficulty function more meaningfully.
21. That children in interpersonal difficulty function more meaningfully.
22. To be observant.
23. To recognize children who are emotionally unable to function.
24. To recognize children who are dysfunctioning.
25. To initiate appropriate school counselling for children who are emotionally unable to function.
26. To initiate appropriate school counselling for children who are dysfunctioning.
27. To refer children who are emotionally unable to function to an outside source.
28. To refer children who are dysfunctioning to an outside source.
29. To be aware if school programs are negatively affecting children.
30. To be aware if professional personnel are negatively affecting children.
31. To be aware if administrative decisions are negatively affecting children.
32. To offer consultation to professional staff.
33. To offer consultation to professional staff to reduce student related problems.
34. To offer consultation to professional staff to prevent student related problems from developing.
35. To offer suggestions to professional staff.
36. To offer suggestions to professional staff to reduce student related problems.
37. To offer suggestions to professional staff to prevent student

related problems from developing.

38. To consult with parents.
39. To consult with parents in order that they may understand their children's problems.
40. To consult with parents in order that they may help in meeting the needs of their children that the situation indicates.

Redundant Goal Statements

There were no redundant goal statements resulting from breaking down multiple goal statements.

Implied Goals

1. To have tests to measure the abilities of children.
2. To have tests to measure the abilities of children in scholastic difficulty.
3. To have consultation procedures for measuring the abilities of children in scholastic difficulty.
4. To train the staff in administering these tests.
5. To train staff in employing these consultation procedures.
6. To implement group programs that will meet the potentials of children in scholastic difficulty.
7. To implement individualized programs that will meet the potentials of children in scholastic difficulty.
8. To diagnose (or measure or identify or assess)

the potentials of children in scholastic difficulty.

9. To identify scholastic problems in order to eliminate them.
10. To identify emotional problems in order to eliminate them.
11. To identify interpersonal problems in order to eliminate them.
12. To reduce negative affects of school programs.
13. To reduce negative affects of professional personnel.
14. To reduce negative affects of administrative decisions.

Results of the Field Test

The field test was conducted between 30 November and 13 December 1972 at the University of Massachusetts, Amherst, Massachusetts. All four field test "evaluators" performed their tasks independently of one another and of the investigator. All four persons completed their analysis and returned their data sheets to the investigator.

A criterion referenced test was then done for each of the four products of the evaluators. The criterion consisted of a list of 40 goal statements, previously presented in this chapter, resulting from breaking down multiple goal statements of a School Social Worker into single goal statements. There were no redundant goal statements, and there were 14 implied goal statements. The results of this criterion test are presented in Table III.

Discussion of the Results

The experienced person, Person A, correctly identified 90% of the criteria goal statements. This was expected by the investigator who decided on the basis of this evidence that the procedures, though vague and not operationalized, can be quite reliable. Person A also correctly

TABLE III

RESULTS OF RELIABILITY TEST

	#Correctly identified compared to criteria	%	#Additional identified goals	Correctly identified that there were no redundant goals	#Correctly identified implied goals compared to criteria	%	#Additional implied goals identified
Person A Very Experienced	32	90%	26	Yes	None	0	0
Person B Moderately Experienced	9	22.5%	18	Yes	4	28.5%	0
Person C Little Experience	15	37.5%	13	Yes	9	64.3%	44
Person D No Experience	15	37.5%	8	Yes	9	64.3%	6

identified that there were no redundant statements. However, there was a problem in that Person A did not identify any implied goals. His personal statement made in writing to the investigator indicated fatigue and frustration. That Person A overidentified goals as evidenced by his including 26 goals over and above the criteria would support this. It would seem that Person A was "burned out" by being so complete on the first part of the goal analysis procedures.

Of Person B it was expected that a correct identification of 60%-70% of criteria goals would be made. This was because Person B had less experience than Person A but had still had a moderate amount of experience with goals analysis procedures. The actual results were quite surprising. That person in fact identified only 22.5% of the criteria goals. This vast difference between Persons A and B could be partially explained by personality. That a variance that large was solely attributable to personality was considered highly improbable. Rather the criteria upon which each was chosen to participate in the field test gives a more plausible explanation and that is, level of experience. Person A was very experienced whereas Person B did not have as much experience. Person A had not only had classroom training in the procedures but had also taught the procedures to others and had done many goal analyses in actual field evaluations. Person B, on the other hand, had had some classroom training and involvement in only one field experience which was not complete at the time of this field test. The biggest difference between the two then seems to be the amount of field experience in using the procedures. Thus the investigator concluded that experience and training are essential elements in making the

goal analysis procedures reliable. The investigator also at this point then began to suspect that the current training procedures were inadequate. An analysis of Persons C and D supported this.

Person C had had only the classroom training component of the "experience" criteria used in the selection process for participation in the field test. Person C correctly identified 37.5% of the criteria goals. Person D, however, with no experience with, or knowledge of, F/H also correctly identified 37.5% of the criteria. This was a surprising result. A person completely unfamiliar with F/H scored as well as Persons B and C who had both had training in F/H and were familiar with F/H. This clearly indicated a problem with the existing methodology, and specifically, with the inadequacy of the existing training procedures. The conclusion was therefore drawn that the existing goal analysis procedures are not highly reliable in the absence of some kind of supervised training and field experience relative to the first part of the goal analysis procedures.

All four persons correctly identified that there were no redundant goal statements, the second part of the goal analysis procedures. A better test might have been to have had a statement with some redundancy to it. The field test indicated, though, that persons do not incorrectly identify redundant statements when they do not exist. Whether the reverse holds true will have to remain the subject of a future field test.

Identifying implied goals, the third part of a goal analysis, is more a task of creativity and imagination than mechanics. It is also less crucial in the overall process than correctly reducing multiple goal statements to single goal statements. Implied goals are less

crucial because the decision maker can always reject or exclude extra goals from a stimulus list but if his own goals or intents have been excluded before he reacts to the list, he can't put them back in, i.e., he can't react to something if it isn't there. Implied goals are important in serving as a test of completeness later in the Goals Process and thus the reason for doing them.

The field test results do not as clearly indicate conclusions for this part of the goal analysis procedures as they did for the first part. Person A, the most experienced, failed to do this part, although his 26 additionally identified goals for the first part are closely related to this step and would seem to indicate again that experience is a crucial factor. Person B again identified fewer than the other two evaluators. Persons C and D surprisingly each identified a little over 64% of the criteria list goals. This is surprising for two reasons: (1) 64% is high and (2) neither have field experience with F/H. Again Person D proved to be the surprise of the field test.

Overall, Person D, with no experience, would rank second of the four in terms of meeting the criteria. This clearly indicates an insufficiency or inadequacy of the methodology. Because of Person A, though, whose results indicate a high degree of reliability, it can not be concluded that the methodology is totally unreliable. Rather, two general conclusions can be made:

1. With sufficient training and experience, the methodology can be highly reliable.
2. Existing training procedures are clearly deficient.

Both of these suggest that something has to be done to, or with, the

goal analysis methodology.

Recommendations

Based on this piece of decision oriented field testing, the investigator would suggest the following recommendations:

1. A modification of the methodology to point out the existing unreliability of the procedures, as they exist, in the absence of sufficient training.
2. That current training procedures be re-examined and revised.
3. That new, innovative training measures be identified.
4. That new and innovative training measures be implemented in training evaluators and others in F/H.
5. That criteria be developed to measure the effectiveness of these training procedures.

These recommendations are interrelated and interdependent. However, there is one recommendation the investigator has chosen not to make, that is, the investigator does not recommend further operationalization of the goal analysis procedures at this time. This is because of two reasons. First, as pointed out earlier in this chapter, such operationalization would be extremely complex, resulting in a grammatical and syntactical exercise, both for the methodologist and the practitioner. Second, the possibility exists that improvements in training will eliminate the problem. The final recommendation, therefore, is that points one through five be incorporated into the Goals Process Methodology in order to increase the reliability of that section of the Goals Process dealing with goal analysis.

CHAPTER VI

A SELF-INSTRUCTIONAL MODULE CONTAINING PROCEDURES FOR INCREASING THE RELIABILITY OF THE GOAL ANALYSIS PROCEDURES

As a result of field testing the goal analysis procedures, described in the previous chapter, it was found that the existing procedures were deemed not to be highly reliable. Five recommendations were made to solve this problem. It is the purpose of this chapter to report on the results of following through on these recommendations.

The first recommendation made was:

> A modification of the methodology to point out the existing unreliability of the procedures, as they exist, in the absence of sufficient training.

The investigator modified the methodology to incorporate this recommendation. As a result of that modification, step 2.0 of the methodology, the goal analysis step, now looks like this:

2.0 Perform a goal analysis on the results of 1.0.

2.1.0 Determine if the evaluator has had supervised field experience in performing a goal analysis.

2.1.1 If he has, then he may proceed with the goal analysis process. Go to step 2.2.

2.1.2 If he has not, then he should proceed to "A Self-Instructional Module in the Goal Analysis Procedures of the Goals Process in the Fortune/Hutchinson Evaluation Methodology." (Note: this is necessary to insure that the evaluator can reliably apply the goal analysis procedures. Without supervision or training, it is unlikely

that the goal analysis procedures can be reliably applied.)

2.2 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line. A multiple goal statement is one containing more than a single intent, aspiration, goal or purpose.

2.3 Eliminate redundant goal statements. A redundant statement is one which contains the exact same words as another statement.

2.4 For each goal now listed, identify and write down the implied goal(s) if any. An implied goal is: (1) one which can be considered as a prerequisite of the stated goal. For example, if a goal is "to implement an affective curriculum," one goal implied by this is "to develop an affective curriculum." And/or (2) one which needs to be (or will be) a direct result of the stated goal. For example, if the goal is "to develop performance criteria," one goal implied by this is "to implement the performance criteria."

Recommendations two through five are related to each other. Because of this they are presented together:

(2) That current training procedures be reexamined and revised.

(3) That new, innovative training measures be identified.

(4) That new and innovative training measures be implemented in training evaluators and others to perform a goal analysis in F/H.

(5) That criteria be developed to measure the effectiveness of

these training procedures.

The result of these four recommendations has been a self-instructional module, presented in the Appendix. It has tried to incorporate the intents of these four recommendations. In addition, it has been submitted to two methodologists--persons who are familiar with F/H and have also done methodological development--for a test of logic. It has also been submitted to one "naive" person--a person not familiar with F/H and also not a methodologist--who also served as a test of completeness to the investigator. As a result of these two "tests" certain modifications were made to improve the internal logic and style of the module.

The self-instructional module is appended (cf. Appendix D). An introduction to it is necessary since stylistically it differs considerably from the other parts of this dissertation.

The purpose of the module is to serve as a self-instructional unit. It is not primarily intended to be part of a scholarly work, even though it appears as such in this work. The grammar and style of it are in keeping with the purpose of a training unit, not in keeping with the purpose of a scholarly work. As such, the module is considerably less formal than the rest of this paper. This has been done intentionally, since the module will be separated from this document to be used in the training of evaluators. Because of this, it has been designed to stand alone.

The reader should be aware of this purpose before reading the module. Otherwise, the reader might subject this module to the same level of analysis and critique as he has done to the other sections of this work. To do this would be to overlook the purpose of the module. It has been created and written to accomplish a specific training purpose. It does

not have discourse as its purpose. With this in mind, the reader is encouraged to participate in the module as would an evaluator being trained in F/H.

CHAPTER VII

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is two-fold: to summarize the methodological development undertaken in this investigation and to provide recommendations for future research based on the results of this investigation.

This investigation has produced several important products not existent when it was begun. The Goals Process in the Fortune/Hutchinson Evaluation Methodology has been completely documented as to its current state of existence. This product is reported in outline form as a Handbook of the Goals Process (appended).

In conjunction with this product, this investigation has detailed and reported a procedure for conducting further methodological development. This procedure--metamethodology--can be used not only to continue doing methodological development on the Goals Process, but also on other aspects of F/H and even on other evaluation methodologies. This procedure is offered as one possible procedure to answer the need for methodology called for in the literature, specifically the need for evaluation methodology.

A second part of this documentation process which was deemed necessary was to elaborate upon the outline of the Goals Process. This was necessary because as initially documented, the Handbook was too complex and insufficiently detailed to be understood by, or useful to, many people. One of the purposes of documenting the Goals Process in the first place was to disseminate it to other evaluators and evaluation

methodologists. It was also intended that they be able to use it. Therefore, to help insure that the purpose of the dissemination and use could be met, a teaching manual was needed to complete the documentation Process. Chapter III resulted from this need. It is a comprehensive, detailed guide to the Goals Process in the Fortune/Hutchinson methodology. It is meant to fully explain the Process to would-be users and to "instruct" interested persons in the purposes, procedures and use of the Goals Process. This completed the documentation part of the investigation.

Even before the Goals Process was fully documented it was known, or at least hypothesized, that gaps[1] existed in that Process. Another level of this investigation was to identify those gaps, to order them in some fashion, and to do methodological development and research on the highest prioritized gap. A rather complete list of gaps was identified (cf. Chapter IV and Appendices B and C) and ordered. Part of the ordering process involved separating minor gaps from major gaps. This was done (cf. Chapter IV). All the minor gaps for Case I were implemented (cf. Appendix A).

The major gaps were further prioritized and the highest prioritized gap was selected for methodological development. This gap was the goal analysis procedures, or step 2.0 of the Goals Process. The procedures as originally documented (cf. Chapter III) were modified to make them more complete. The modified procedures were then field tested in a

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[1] A gap is defined as an interruption in continuity. (Cf. Chapters I and II.)

piece of decision oriented research. It was found as a result of that field test that the procedures were not highly reliable in the absence of extensive training and/or supervised field experience. On the basis of these results, five recommendations were made to increase the reliability of the procedures (cf. Chapter V).

The investigation then focused on incorporating these recommendations into the Goals Process methodology. This was done by changing the methodology (cf. Chapter VI) to take into consideration the unreliability of the procedures in the absence of supervision and training. Part of this change involved the development of a Self-Instructional Module to train would-be users of the methodology in the goal analysis procedures. Resources did not allow a decision oriented field test of this module at this time. However it was submitted to two other methodologists for their reactions and revisions have been made on the basis of these reactions.

This completed this investigation: the documentation of the Goals Process; the identification of gaps; the sorting of minor from major gaps; the implementation of minor gaps; the field testing of a major gap and finally, the development of procedures to fill one of those that gap.

Recommendations for Further Research

This investigation has systematically laid the foundation and provided the direction for future methodological development and research of both the goal analysis procedures and on the Goals Process itself. The very first (or next) piece of research should be a decision oriented field test of the Self-Instructional Module. This would in a sense

replicate the field test of the goal analysis procedures described in Chapter V since the same content used in that field test and the same criteria of success used in that field test are incorporated into the Self-Instructional Module. Such a piece of research is tentatively scheduled to occur in an Evaluation Design class at the School of Education, University of Massachusetts in the Fall of 1973.

Following such a field test, the Module should be revised appropriately. Again, it should be field tested in a decision oriented framework. This recycling process should continue until decision oriented field testing is no longer useful. That point should be reached when the module performs consistently well each time it is used and with each person using it being able to meet the criteria contained in the module.

This would be one direction of needed future research resulting from this investigation. Another line has also been drawn by the prioritized list of major gaps resulting from this investigation. Each of these should be subjected to the same process outlined in this investigation and which the goal analysis procedures underwent. This list of gaps provides an ordered plan for proceeding with methodological development on the Goals Process.

This investigation has been limited to dealing with Case I only of four different sets of goals procedures. There is obviously a need to attend to the other three sets of procedures. The gaps in those cases have been documented (cf. appendices) but they have not been prioritized. This would be the first step in proceeding with methodological development and research on those other three sets of goals procedures. Once

prioritization has been done, development can proceed as outlined in this investigation.

These different areas of research could be conducted consecutively or simultaneously. Resources available and the interest and desire of other methodologists, as well as this investigator, will determine how this research will proceed.

The final product of these lines of inquiry should be a thoroughly documented, tested and researched Goals Process Methodology within the Fortune/Hutchinson Evaluation Methodology. This investigation has made only a beginning toward achieving this goal.

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APPENDICES

APPENDIX A

The Goals Process in the Fortune/Hutchinson Evaluation Methodology

A Handbook

The Goals Process in the Fortune/Hutchinson Evaluation Methodology

Orientation Element: Process for Deciding which Goals Procedure is Appropriate in Dealing with a Decision Maker

0.0 Determine who the first priority decision maker is to be, i.e., the person(s) for whose decision making purposes data is to be collected. If this first priority decision maker has already gone through the goals process, then determine who is the next highest priority decision maker who has not already gone through the goals process and deal with him (them).

0.1 If that decision maker is an individual person who individually makes decisions relative to the enterprise, refer to Case I: Goals Process: Where the Decision Maker is an Individual.

0.2 If that decision maker is a group of persons, determine if that group of persons is a single decision making body who as a group have the authority and responsibility for making decisions and who make those decisions as a group. If it is a single decision making body, then refer to Case II: Goals Process, Identification Procedures, Where the Decision Maker is a Group of Persons who act as a Single Decision Making Body.

0.3 If that decision maker is a group which does not act as a single decision making body then the group is a group of individual decision makers who individually make decisions relative to the enterprise. Refer to Case III: Goals Process, Identification Procedures, Where the Group is a Collection of Individual Decision Makers Making Individual Decisions.

The Goals Process: Case I, Revised

Case I: Where the Decision Maker is an Individual

Purpose: To arrive at as complete an approximation as possible of the decision maker's intents for the enterprise

1.0 Ask the decision maker to respond to the following stimulus either by writing or tape recording:

> What do you really want or intend (the enterprise) to be and to accomplish? What do you really want (the enterprise) to accomplish for yourself and for others?
>
> (NOTE: These are separate questions but a single stimulus, and if the first question does not seem appropriate, then the second, a paraphrase of the first, may be appropriate.)

The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise," as is appropriate for the given enterprise under consideration.

2.0 Perform a goal analysis on the results of 1.0

2.1.0 Determine if the evaluator has had supervised field experience in performing a goal analysis.

2.1.1 If he has, then he may proceed with the goal analysis process. Go to step 2.2

2.1.2 If he has not, then he should proceed to "A Self-Instructional Module in the Goal Analysis Procedures of the Goals Process in the Fortune/Hutchinson Evaluation Methodology" (unless he has completed that module).

(NOTE: This is necessary to insure that the evaluator can reliably apply the goal analysis procedures. Without supervision or training, the goal analysis procedures can not be reliably applied.)

2.2 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line. A multiple goal statement is

one containing more than a single intent, aspiration, goal or purpose.

2.3 Eliminate redundant goal statements. A redundant statement is one which contains the exact same words as another statement.

2.4 For each goal now listed, identify and write down the implied goal(s) if any. An implied goal is

(1) one which can be considered as a pre-requisite of the stated goal. For example, if a goal is "to implement an affective curriculum," one goal implied by this is "to develop an affective curriculum."

and/or

(2) one which needs to be or will be a direct result of the stated goal. For example, if the goal is "to develop performance criteria," one goal implied by this is to "implement the performance criteria."

3.0 The evaluator develops an alternative list of goals from selected enterprise documents, identifying in writing, and by labeling, the sources from which they come.

3.1 Determine how many resources - time, money, staff - are available to devote to this activity. (If there are no resources, this step is eliminated. The evaluator would proceed to step 7.0.)

3.2 Choose the primary written document which would be a major source of enterprise goals. If this is unknown to the evaluator, ask the decision maker which document the enterprise has produced which would be a major source of goals.

3.3 In the document, identify statements which appear to indicate what someone wants (the enterprise) to accomplish for self/or for others.

(NOTE: Goals occur throughout such documents and it should not be thought that 3.3.0 applies to just a section of the document that might be labeled "goals" or "objectives.")

3.4.0 Perform a goal analysis (cf 2.0) of this selected published enterprise document.

3.5.0 After completing this goal analysis for this primary document, and if (say) this primary document produced more than 10 goals, then determine the amount of resources remaining to devote to continuing this activity.

3.5.1 If resources still remain, and if 3.0 produced (say) 10 or more additional goals, then choose another major written source of enterprise goals. This second major document need not be solicited from the decision maker but might be chosen by the evaluator or by other enterprise personnel at the discretion of the evaluator. (Cf. 3.4.2 below for an exception.)

3.5.2 If going through the primary document (cf. 3.2) produces fewer than (say) 10 additional goals, then this activity is not very useful and the evaluator would not proceed with 3.4.1, namely any other documents.

4.0 The evaluator develops alternative lists of goals by repeating the process outlined in 1.0 for other decision makers of the enterprise, that is, he elicits a goals list(s) for other people or groups of people in the enterprise who are decision makers but not the primary or most important ones. (This is not done if the evaluator has this material as the result of a prior step.) The evaluator identifies the sources of the alternative goals list(s) unless the source (other decision maker) wishes not to be publicly identified. If so, his list would be used but the source would be noted as a person in the enterprise rather than by his name, title, rank, etc.

4.1 Determine the amount of resources - time, money, staff - are available to devote to this activity.

4.2 Choose this other decision maker(s) in the enterprise who is likely to have goals other than the ones the primary decision maker is likely to put down. The primary decision

maker may suggest to the evaluator another decision maker whose goals he is interested in seeing or reacting to.

4.3 Perform a goal analysis (cf. 2.0) on this other decision maker's goals.

4.4.0 After completing this goal analysis for this other decision maker(s), determine the amount of resources remaining to devote to this continuing activity.

4.4.1 If resources still remain, and if 4.1-4.3 produced (say) 10 or more additional goals then repeat this process for another decision maker within the enterprise. This second decision maker or group of decision makers need not be solicited from the decision maker but might be chosen by the evaluator.

(NOTE: An alternative to 4.4.1 would be to develop an alternative goals list from decision makers from a separate but similar enterprise, which enterprise could either be chosen by the decision maker or lacking a desire on his part to do so, by the evaluator.)

5.0 Ask the primary decision maker(s) to react/respond to the alternative lists of goals resulting from 3.0, documents, and 4.0, other decision makers, by asking him to consider if the goals are ones he holds for his enterprise. (At least one of the following steps should be done for each goal on the list.)

5.1 If the decision maker considers a given goal statement to be one which he holds for the enterprise, and if it has not already been identified the evaluator would now add it to a "list of goals" which he would start at this point.

5.2 If the decision maker considers the goal statement to be one which he does not hold for the enterprise, it should not be added to his list but simply be rejected. The evaluator would not add it to the list of goals.

5.3 If the particular goal statement stimulates the decision maker to think of additional goal statements, these should now be added by the evaluator to the list of goals.

5.4 If one of these steps causes the decision maker to wish to modify one of the goal statements on his list, then the evaluator makes the appropriate changes.

6.0 Perform the Activities Test of Completeness for Goals.

6.1 Determine the amount of resources - time, money, staff - available to devote to this activity. (If no resources are available, this step should be eliminated.)

6.2 The decision maker is asked to make a list of activities, i.e., things that he does, that the enterprise does, during the course of the on-going enterprise.

6.3 After making up such a list, for each activity contained on it, the decision maker asks himself the question: why do I (we, the enterprise) do that?

6.4 The decision maker then relates each reason resulting from 6.2 above to a goal or goal statement(s) resulting from the first five steps of the identification process, so it results in a complete cross-check of what goals relate to what activities and what activities relate to what goals on their respective lists.

6.4.1 For each and every reason that does not relate to at least one goal, the evaluator points out the discrepancy to the decision maker. The evaluator then might do two things: (a) ask the decision maker whether in fact he does have a goal for the activity and if he does, the evaluator would add it to the list; or,

(b) ask the decision maker if that activity is still an activity he wishes to pursue.

6.4.2 For each and every goal on the goals list for which no activities are related, the

evaluator points out this discrepancy to the decision maker. The evaluator again does two things: (a) asks the decision maker if he does indeed have activities he (the enterprise) is doing and if so, adds these to the activities list, or (b) if he does not have any activities, asks if this is a goal he really holds and if it is not, removes it from the goals list.

7.0 The decision maker, one last time, goes through the entire goals list which has resulted from steps 1.0 through 5.0 and as amended or modified by the test of completeness, 6.0. For each and every goal statement on that list, the decision maker seriously reconsiders it and commits himself before proceeding to the next step in the evaluation.

7.1 If the decision maker still holds the goal in the form in which it is written, nothing more is done to it at this point.

7.2 If the decision maker no longer holds a given goal for the enterprise, the evaluator removes the item from the list of goals.

7.3 If the decision maker still holds a goal for the enterprise but feels the wording or intent should be modified, then the evaluator makes those modifications the decision maker feels are appropriate.

7.4 If the decision maker thinks of any goals that are not included on the list, the evaluator adds them to the list.

8.0 The decision maker now prioritizes his list of goals resulting from steps 1.0 through 7.0, the goals identification and test of completeness procedures. He does this by choosing kinds of prioritization criteria which have been suggested to him by the evaluator (cf. criteria below) or ways of prioritizing that he suggests as alternatives to those presented by the evaluator.

The evaluator should explain to the decision maker the options available in this reacting process. He should also point out that they do not have to simply choose from the list but can at any time during this step make changes.

8.1 Determine the resources available to devote to this activity. If very few resources are available, this

process should be shortened, e.g., only one criteria, possibly with a time limit imposed.

8.2 Prioritization on the basis of a Preference/ Importance Criteria. If the decision maker chooses this criteria, then;

The decision maker rank orders the goals in terms of the goals most important to him, assigning a rank of 1 to the goal most important to him, a rank of 2 to the second most important goal to him and so on.

8.3 Prioritization on the basis of a Chronological Criteria. If the decision maker chooses this criteria, then:

The decision maker rank orders the goals in terms of their order of occurrence in time, assigning a rank of 1 to the goal which will occur first in time, a rank of 2 to the goal occurring next in time after 1 and so on.

8.4 Prioritization on the basis of a Cost/Risk Criteria. If the decision maker chooses this Criteria, then:

The decision maker rank orders the goals in order of their probability of failing, assigning a rank of 1 to the goal with the highest probability of failing, a rank of 2 to the goal with the next highest probability of failing and so on.

8.5 If the decision maker has chosen only one of these criteria of prioritizing or another of his own suggestion, the prioritization is complete. The evaluator would then proceed with the next step in the evaluation process. If, however, he has chosen more than one set of Criteria, then there must be a way of arriving at a final prioritization list. That is, the criteria, if more than one has been used, need to be combined.

8.5.1 The decision maker prioritizes the criteria he has used (if he has used more than one) and then he simply chooses the goal ranked 1

on this most important criteria. The second goal would simply be the first ranked goal on the next most important criteria and so on.

8.5.2 Prioritization is done on the basis of adding together rankings on the different criteria.

The decision maker orders the goals lists as in 8.1, 8.2, 8.3 or any other order he may have used. Each goal will have received more than one rank if more than one ranking criteria was used. These ranks are then added together and the one receiving the lowest total is assigned a rank of 1, the goal with the next lowest total receives a rank of 2 and so on.

In the event of tied ranks, i.e., if more than one goal receives the same rank number after combining ranks, the decision maker is asked to decide which of the ranking criteria used he considers to be the most important. The tie is broken then on the basis of the tied goal with the highest rank on the most important criteria being chosen.

8.5 The decision maker is asked to examine the final prioritized list arrived at through this prioritization process, 8.0 through 8.4 and to decide if this list represents a reasonable order in which to proceed with the next step in the evaluation process. If he responds positively, the evaluator proceeds with the next process. If he responds negatively, the prioritization procedure is repeated. That is, the decision maker is allowed at this point to recycle if he feels the result of 8.0 is unsatisfactory. However, minor changes may be made but if the decision maker expresses general dissatisfaction, then 8.0 should be recycled.

The Goals Process: Case II

CASE II: Where the Decision Maker is a Group of People who act as a Single Decision Making Body

Purpose: To arrive at as complete an approximation as possible of the decision makers' intents for the enterprise.

1.0 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

2.0 Determine if the group size is small enough relative to the amount of resources available (1.0) that the evaluator can deal with each member individually and where, therefore, sampling is not necessary. If it is indeed small enough, refer to Case II-A: Where the Group Size is Small Enough Compared to the Resources that Sampling is not Required.

3.0 If the group size is too large relative to the amount of resources available (1.0) and the evaluator must therefore employ some sampling procedures, refer to Case II-B: Where the Group Size is Too Large for Available Resources and Sampling is Employed.

CASE II-A: Where the Group Size is Small Enough Compared to Resources that Sampling is Not Required

1.0 Determine the decision making mode the group ordinarily uses in making their decisions.

1.1 The evaluator must insure that the decision makers use their ordinary decision making process, as sometimes when groups act on the evaluation process they may vary from their usual mode which will result in the data not being most amenable to the ordinary process they use in making decisions which effect the enterprise.

1.2 Throughout the rest of the methodology wherever the phrase "...the decision makers decide, choose, act, etc.," it means that the body makes their decisions according to whatever internal, agreed upon decision making process they ordinarily use to make decisions whether it is majority vote, unanimous vote, consensus or whatever.

2.0 Ask each member of the group, separately, to respond to the following stimulus either by writing or tape recording:

> What do <u>you</u> really want (the enterprise) to be and to accomplish? What do you really want (the enterprise) to accomplish for yourself and others?
>
> > (Note: These are separate questions but a single stimulus and if the first question does not seem appropriate, then the second, a paraphrase of the first, may be appropriate.)

The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise" as is appropriate for the given enterprise under consideration.

3.0 The evaluator combines all the output from each of the individual members of the decision making body, which has been arrived at on an individual basis.

4.0 Perform a goal analysis on the combined output arrived at in 3.0 above.

4.1 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line.

4.2 Eliminate redundant goal statements. A redundant goal statement is one which contains the exact same words as another statement.

5.0 The evaluator develops alternative lists of goals from selected enterprise documents, identifying the sources from which they come.

5.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

5.2 Choose the primary written document which would be a major source of enterprise goals. If this is unknown to the evaluator, ask the decision makers as a group which document the enterprise has produced which would be a major source of written goals.

5.3.0 Perform a goal analysis (of 4.0) of this selected published enterprise document.

5.3.1 Goals occur throughout such documents and it should not be thought that 5.0 applies to just a section of the document that might be labeled "goals" or "objectives."

5.4.0 After completing this goal analysis for the primary document, determine the amount of resources remaining to devote to continuing this activity.

5.4.1 If resources still remain, then examine another major written source of enterprise goals. This second document need not be solicited from the decision makers but might be chosen by the evaluator or by other enterprise personnel at the discretion of the evaluator.

5.4.2 If going through the primary document (cf. 5.2) produces fewer than (say) 10

additional goals, then this activity is not very useful and the evaluator would not proceed with this activity. i.e., he would not perform 5.4 at all.

6.0 The evaluator develops alternative lists of goals by repeating 2.0 for other decision makers of the enterprise, that is, for other people or groups of people in the enterprise who are also decision makers. (This is not done if the evaluator has this material as a result of a prior step.) The evaluator identifies the sources unless the source (other decision makers) wishes not to be publicly identified. If so, his list would be used but the source would be noted as simply "a person in the enterprise" rather than by his name, position, title, and so on.

6.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

6.2 Choose this other decision maker(s) in the enterprise who is likely to have goals other than the ones the decision makers the evaluator is working with are likely to put down. The decision makers as a group may suggest to the evaluator another decision maker whose goals they are interested in reacting to.

6.3 Perform a goal analysis (cf. 4.0) on this other decision maker's goals.

6.3.0 After completing this goal analysis for this other decision maker's goals, determine the amount of resources remaining to devote to continuing this activity.

6.4.1 If resources still remain, then repeat this process for another decision maker within the enterprise. This second decision maker or group of decision makers need not be solicited from the decision making body with which the evaluator is working but may be chosen by the evaluator.

6.4.2 An alternative to 6.4.1 would be to develop an alternative goals list from

decision makers from a separate but similar enterprise, which enterprise could either be chosen by the decision makers as a group of lacking a desire or felt need to do that, by the evaluator.

6.4.3 If going through this process with the first "other" decision maker(s) described in 6.0 produces fewer than (say) 10 additional goals, then this activity is not a very useful one and the evaluator would not proceed any further than with this particular person(s).

7.0 The decision makers, as a group, are asked to react/respond to the combined list of goals resulting from 4.0, the goals of each other as arrived at individually; 5.0, documents; and 6.0 others' goals. They react/respond in a manner in which they usually make their decisions, i.e., they follow their regular decision making behavior. They are to consider if the goals are ones which they as a group hold for their enterprise.

The evaluator should explain to the group the alternatives available in this reacting process, namely the substeps below. He should also point out that they do not have to simply choose from the list but can at any time during 7.0 make changes, modifications, etc.

7.1 If they consider a given goal statement to be one which they hold for the enterprise, it should be added to a "list of goals for the enterprise."

7.2 If they consider the goal statement to be one which they do not hold for the enterprise, it should not be used or added to the list of goals for the enterprise.

7.3 If the particular goal statement stimulates thought (or discussion or whatever) and the decision makers think of additional goals not on any of these lists, then these additional goals should be added to the list at this point. (This may and can occur at any point in this 7.0 step.)

7.4 If any one of these steps causes the decision makers to wish to modify one (or more) of the goal statements on the list, then that should be done also.

7.5 These steps should be done for each and every goal statement on the combined list of 4.0 the goals of each other, 5.0, documents and 6.0 others.

Test of Completeness

8.0 Perform the Activities Test of Completeness for goals.

8.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity. (If no resources are available this step is eliminated.)

8.2 Each member of the decision making body, separately, is asked to make a list of activities, that is, things he does or the enterprise does during the course of the on-going enterprise. Arbitrarily choose a number, e.g., 10 activities each.

8.3 The evaluator combines the output of 8.2 into one list of activities for the group. Overlap or redundancy is first eliminated.

8.4 This combined list of activities is presented to the group and for each item on the list, the group asks itself the question: Why do we do that?

8.5.0 They then relate each reason resulting from the above step to a goal or goal statement resulting from the first seven steps of the identification process, so it results in a complete cross-check of what goals relate to what activities and what activities relate to what goals on the respective lists.

(Note: This process is done with the group proceeding in its regular decision making fashion.)

8.5.1 For each and every reason that does not relate to at least one goal the evaluator

points out the discrepancy to the decision makers. The evaluator might then do two things: (a) ask the decision makers whether in fact they do have a goal for the given activity and if they do, add it to the goals list; or (b) ask the decision makers if that activity is still an activity they wish to pursue.

8.5.2 For each and every goal on the goals list for which no activities are related, the evaluator points out this discrepancy to the decision makers. The evaluator again does two things: (a) ask the decision makers if they do indeed have activities they (the enterprise) are doing and if so, add these to the activities list; or (b) if they do not have any activities, ask if this is a goal which they really hold and if it is not, remove it from the goals list.

9.0 The decision makers, as a group and in the manner in which they usually make their decisions, go through the entire goals list resulting to date and for each and every statement on that list, they seriously reconsider it and commit themselves to it before proceeding with the data collection on goals.

9.1 If they still hold that goal in the form in which it is written, nothing more is done to it at this point.

9.2 If they no longer hold that given goal for the enterprise, it is deleted from the list.

9.3 If they still hold a goal for the enterprise but feel the wording or intent should be modified, then modify as it is appropriate.

9.4 If they think of any goals not included on the list which they now want included, add it (them).

Prioritization

10.0 The decision makers, as a group, now prioritize their list of goals resulting from 2.0 through 9.0, the goals identification process as modified by

8.0, the test of completeness and as committed to in 9.0. They do this by choosing the kind (kinds) of prioritization criteria which have been suggested to them by the evaluator, or, other ways of prioritizing that they suggest as alternatives to those presented by the evaluator.

They have several options at this point. They may choose any one of the criteria below, more than one, or all of them to do as a group. They may assign different criteria to different members of the group to do individually or in subgroups. The evaluator would then bring the results back to the group as a whole for consideration. The evaluator points out these options to the decision makers and they then decide how to prioritize.

10.1 Determine the amount of resources - time, money, staff - available to devote to this activity. A very limited amount of resources will limit the number of options available, possibly to only one criteria, and even then with a possible time limit set on it if necessary.

10.2 Prioritization on the basis of a Preference/ Importance Criteria. If the decision makers choose this criteria, then:

> The decision makers rank order the goals in terms of the goals most important to them, assigning a rank of 1 to the goal most important to them, a rank of 2 to the second most important goal to them and so on.

10.3 Prioritization on the basis of a Chronological Criteria. If the decision makers choose this criteria, then:

> The decision makers rank order the goals in terms of their order of occurrence in time, assigning a rank of 1 to the goal which will occur first in time, a rank of 2 to the goal occurring next in time after 1 and so on.

10.4 Prioritization on the basis of a Cost/Risk Criteria. If the decision makers choose this criteria, then:

The decision makers rank order the goals in order of their probability of failing, assigning a rank of 1 to the goal with the highest probability of failing, a rank of 2 to the goal with the next highest probability of failing and so on.

10.5.0 If the decision makers have chosen only one of these criteria or another one of their own suggestion, then prioritization is completed. If however they have chosen more than one set of criteria, then there must be a way of arriving at a final prioritization list. That is, the criteria, where more than one has been used, need to be combined. The way this is done is decided by the decision makers as a group, using one of the methods the evaluator suggests (cf. below) or one of their own.

10.5.1 The decision makers prioritize the criteria they have used (if they have used more than one) and then they simply choose the goal ranked 1 on this most important criteria. The second goal would simply be the first ranked goal on the next most important criteria and so on.

10.5.2 Prioritization is done on the basis of adding together rankings on the different criteria. The decision makers have rank ordered their goals on more than one of the criteria. Each goal will have received more than one rank if more than one ranking criteria was used. These ranks are then added together and the one receiving the lowest total is assigned a rank of 1, the goal with the next lowest total a rank of 2 and so on.

In the event of tied ranks, i.e., if more than one goal receives the same rank number after combining ranks, the decision makers are asked to decide which of the ranking criteria used do they consider to be the most important. The tie is broken then on the basis of the tied one with the highest rank on the most important criteria, being chosen.

10.6 The decision makers are asked to examine the final prioritized list arrived at through this prioritization process and to decide if this list represents

a reasonable order in which to proceed, i.e., to begin the operationalization process. If they respond positively, the evaluator proceeds with operationalization. If they respond negatively, then the evaluator allows the decision makers to make those last minute changes they wish.

CASE II-B: Where the Group Size is too Large Relative to the Available Resources and Sampling Procedures are Employed

1.0 Determine if the evaluator who is going to use this Case has a knowledge of sampling techniques. If not, then the evaluator should consult someone with expertise in sampling procedures.

2.0 Determine the decision making mode the group ordinarily uses in making their decisions.

2.1 The evaluator must insure that the decision makers use their ordinary decision making process as sometimes when groups act on the evaluation process they may vary from their usual mode which will result in the data not being most amenable to the ordinary process they use in making decisions which effect the enterprise.

2.2 Throughout the rest of this methodology wherever the phrase "...the decision makers, as a group, decide, choose, act, etc.," it means that the body makes their decisions according to whatever internal, agreed upon decision making process they ordinarily use to make decisions whether it is majority vote, unanimous vote, apparent consensus or whatever.

3.0 Select a sample from the decision making group.

3.1 Determine the amount of resources - time, money, staff - available and this amount in turn will be a limitation on the size of the sample and on the sophistication of sampling techniques.

4.0 Ask each member of this sample from the decision making group, separately, to respond to the following stimulus either by writing or tape recording:

> What do you really want (the enterprise) to be and to accomplish? What do you really want (the enterprise) to accomplish for yourself and others?

(Note: These are separate questions but a single stimulus and if the first question does not seem appropriate, then the second, which is a paraphrase of the first, may be appropriate.)

The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise" as is appropriate for the given enterprise under consideration.

5.0 The evaluator combines all the output from each of the individual members of the sample from the decision making body, which have been arrived at on an individual basis.

6.0 Perform a goal analysis of the combined output arrived at in 5.0 above.

6.1 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line.

6.2 Eliminate redundant goal statements: A redundant goal statement is one which contains the exact same words.

7.0 The evaluator develops alternative lists of goals from selected enterprise documents, identifying the sources from which they come.

7.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

7.2 Choose the primary written document which would be a major source of enterprise goals. If this is unknown to the evaluator, ask the decision makers as a group which document the enterprise has produced which would be a major source of written goals.

7.3.0 Perform a goal analysis (cf. 6.0) of this selected written enterprise document.

7.3.1 Goals occur throughout such documents and it should not be thought that 7.0 applies to just a section of the document that might be labeled "goals" or "objectives."

7.4.0 After completing this goal analysis for the primary written document, determine the amount of resources remaining to devote to continuing this activity.

7.4.1 If resources still remain, then examine another major written source of enterprise goals. This second document need not be solicited from the decision makers but might be chosen by the evaluator or by other enterprise personnel at the discretion of the evaluator.

7.4.2 If going through the primary document (cf. 7.2) produces fewer than (say) 10 additional goals, then this activity is not very useful and the evaluator would not proceed with this activity, i.e., he would not perform 7.4 at all.

8.0 The evaluator develops alternative lists of goals by repeating the process outlined in 4.0 for other decision makers of the enterprise, that is, for another person or group(s) of people in the enterprise who are also decision makers. (This is not done if the evaluator has this material as a result of a prior step.) The evaluator identifies the sources unless the source (other decision makers) wishes not to be publicly identified. If so, his list would be used but the source would be noted as simply "a person in the enterprise" rather than by his name, position, title, and so on.

8.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

8.2 Choose this other decision maker(s) in the enterprise who is likely to have goals other than the ones the decision makers the evaluator is working with are likely to put down. The decision makers as a group may suggest to the evaluator such another decision maker whose goals they are interested in reacting to.

8.3 Perform a goal analysis (cf. 6.0) on this other decision maker's goals.

8.4.0 After completing this goal analysis for this other decision maker's goals, determine the amount of resources remaining to devote to continuing this activity.

8.4.1 If resources still remain, then repeat this process for another decision maker or group of decision makers within the enterprise. This second person (group) need not be solicited from the decision making body with which the evaluator is working but may be chosen by the evaluator.

8.4.2 An alternative to 8.4.1 would be to develop an alternative goals list from decision makers from a separate but similar enterprise, which enterprise could either be chosen by the decision makers as a group or lacking their desire or felt need to do so, by the evaluator.

8.4.3 If going through this process with the first "other" decision maker(s) described in 8.0 produces fewer than (say) 10 additional goals, then this activity is not a very useful one and the evaluator would not proceed any further than with this particular person(s).

9.0 Combine all the output from 6.0 (the goal analysis of the combined output of the sample members), 7.0 (alternative list(s) of goals from documents), and 8.0 (alternative list(s) of goals of others).

(Note: This combined output should be in the form of a list of goals, with a single goal per line.)

10.0 Collapse the goals list into an ordered list of goals.

10.1.0 Take the list of all the goals. Have each member of the group, individually, check off on the list those goals which he holds for the enterprise. He does this for the entire list of goals.

10.1.1 A special case of this: If the group is very large, with 100 or more persons,

the evaluator would perform 10.1 by dividing both goals and decision makers into groups.

10.1.2 Divide the decision making body into sample sizes of 20 or greater. (This is done by sampling procedures.)

10.1.3 Divide the goals into groups of 100 or smaller.

10.1.4 Have an equal number of sets of goals and groups of decision makers. It may be necessary to adjust 1.2 and 1.3 to do this. The evaluator should end up though with an equal number of each, e.g., 10 groups of decision makers and 10 lists of goals.

10.1.5 Randomly assign goals lists to the groups of decision makers, such that all the goals lists are distributed, one to each group and each group getting one list.

10.2 Compile a frequency count for each goal on the list and compute a percentage of the number of members in the group who hold each goal on the list as a goal for the enterprise.

10.3 Order the list of goals now by frequency, the goal receiving the most check marks and therefore the greatest percentage ranking #1, the goal with the next highest percentage ranking #2 and so on for all the goals.

10.4 Determine if the resources are limited. If they are proceed to 11.0. If they are not, e.g., if there is more than $20,000, then proceed to 14.0 and eliminate 11.0 through 13.0.

SIMPLE PROCESS: WHERE THE RESOURCES ARE LIMITED

11.0 From this list (10.3) choose the first 10 to 20 goals, i.e., the 10 to 20 most frequently checked items. These now become the goals list to present to the group as a whole.

12.0 The decision makers, as a group, are presented with this list of 10 to 20 goals, depending upon resources, ordered according to frequency. At this time, the evaluator explains to them the process by which this list was arrived at, beginning with the original sample and explaining the whole procedure.

13.0 The decision makers are then asked to react/respond to this frequency list. They do this in a manner in which they usually make their decisions. The evaluator asks the group to decide if they are prepared to accept this list both as the goals list for the enterprise and in the prioritized manner arrived at in 10.3 and 11.0 above.

The evaluator points out that if they vote no, they must commit more resources to the evaluation.

(Note: They do have the option of making changes in priorities for say the first 10 goals, but that is all they may change here without committing more resources.)

13.1 If they vote yes, i.e., accept the list and the order (or as slightly changed by the note in 13.0), then the evaluator proceeds with the operationalization process.

13.2 If they vote no, then the evaluator again informs them of the need for more resources; gets the resources committed and then proceeds with the lengthy, complex process for arriving at a complete goals list.

(Note: Usually, the resources will be such that the lengthy process will seldom occur in Case II-B. However it will be presented here for the few cases where it will be needed.)

COMPLEX PROCESS: WHERE THERE ARE MANY RESOURCES

14.0 Using the ordered list from 10.3 (the entire list) collapse the goals list into a synthesized, categorized shortened list of more general or global goal statements. This list should have no more than (say) 20 goal statements on it.

14.1 Take the goal with the highest frequency and record it on a separate piece of paper. Take the #2 goal and ask yourself, "Can I write a more general goal statement which will incorporate both of these?"

14.1.1 If the answer is yes, then do so and record it on the same piece of paper.

14.1.2 If no, then record it on a second sheet of paper thus starting another category.

14.2 Take the #3 ranked goal (the goal with the third greatest percentage) on the frequency list and repeat the procedure. Check it against the first category and ask the question, "Does this fit into this statement or can I write a more general statement incorporating both?"

14.2.1 If yes, it does fit, then write it down. Or if a more general statement can be written, then write it down.

14.2.2 If the answer is no, go to the second sheet of paper. If it belongs there, add it, and if it doesn't, start a third category.

14.3 Repeat this process for each goal on the frequency list. As a maximum, though, there should be no more than 20 to 30 categories so that the final list to be presented to the group will have no more than 20 to 30 goal statements on it.

15.0 The collapsed list of general goal statements arrived at through 14.0 above is now presented to the decision making body as a group. The group is now asked to react/respond to this synthesized and categorized list of goals. They do this in a manner in which they usually make their decisions, i.e., they follow their regular decision making behavior. They are to consider, goal by goal, if the goals are ones which they as a group hold for their enterprise.

The evaluator should explain to the group the alternatives available in this reacting process, namely the substeps below. He should also point out that they do not have to simply choose from the list but can at any time during this step of 15.0 make changes, modifications, etc.

The evaluator would also at this point explain to the group the process by which this list was arrived at, beginning with the original sample and continuing through the collapsing stage.

15.1 If they consider a given goal statement to be one which they hold for the enterprise, it should be added to a "list of goals for the enterprise."

15.2 If they consider the goal statement to be one which they do not hold for the enterprise, it should not be used or added to the list of goals for the enterprise.

15.3 If the particular goal statement stimulates thought or discussion and the decision makers think of additional goals not on any of the lists, then these additional goals should be added to the list at this point. (Goals may be added throughout this step if this should occur.)

15.4 If any one of these steps causes the decision makers to wish to modify one (or more) of the goal statements on the list, then that should be done also.

15.5 These steps should be done for each and every goal statement on the collapsed list presented to the group at the beginning of this step.

Test of Completeness

16.0 Draw a sample different from the previous one used. It is all right if there is some overlap with the previous sample.

17.0 Perform the activities test of completeness for goals.

17.1 Determine the amount of resources - time, money, staff - which are available to devote to this

activity. (If no resources are available, this step is eliminated.)

17.2 Each member of the sample from the decision making body, separately, is asked to make a list of activities, that is, things the enterprise does during the course of its operating. Arbitrarily choose a number, e.g., 10 activities each.

17.3 The evaluator combines the output of 17.2 into one list of activities for the group. Overlap and/or redundancy is eliminated.

17.4 This combined list of activities is presented to the sample as a group and for each item on the list, the sample as a group asks itself the question, "Why do we do that?"

17.5.0 They then relate each reason resulting from the above question to a goal or goal statement resulting from 15.0 above, deciding the goals for the enterprise so this will result in a complete cross check of what goals relate to what activities and what activities relate to what goals on the respective lists.

(Note: This process is done with the sample proceeding as the group as a whole ordinarily does in its regular decision making fashion.)

17.5.1 For each and every reason that does not relate to at least one goal the evaluator points out the discrepancy to the whole group of decision makers, not just the sample. The evaluator might then do two things: (a) ask the decision makers as a group whether in fact they do have a goal for the given activity and if they do, add it to the goals list; or (b) ask the decision makers as a group if that activity is still an activity they wish to pursue.

17.5.2 For each and every goal on the goals lists for which no activities are related, the evaluator points out this discrepancy to the decision makers as a whole group. The evaluator again does two things: (a) asks the decision makers if they do indeed have activities they (the enterprise) are doing

and if so, add these to the activities list; or (b) if they do not have any activities, asks if this is a goal then which they really hold and if it is not, removes it from the goals list.

18.0 The decision makers, as a group and in a manner in which they usually make their decisions, go through the entire goals list resulting to date and for each and every statement on that list, they seriously reconsider it and commit themselves to it before proceeding with the data collection on goals.

18.1 If they still hold that goal in the form in which it is written, nothing more is done to it at this point.

18.2 If they no longer hold that given goal for the enterprise, it is deleted from the list.

18.3 If they still hold a goal for the enterprise but feel the wording or intent should be modified, then modify the goal as is appropriate.

18.4 If they think of any goals not included on the list which they now want included, add it (them).

Prioritization

19.0 The decision makers, as a group, now prioritize their list of goals. They do this by choosing the kind (kinds) of prioritization criteria which have been suggested to them by the evaluator, or other ways of prioritizing that they suggest as alternatives to those presented by the evaluator.

They have several options at this point. They may choose any one of the criteria below, more than one or all of them. They tell the evaluator which criteria they wish to have used on the goals list they have committed themselves to through step 18.0 above.

19.1 Determine the amount of resources - time, money, staff - available to devote to this activity. A very limited amount of resources will limit the number of options available, possibly to only one of the criteria, and even then, with a possible time limit set on

it if necessary.

19.2 Prioritization on the basis of a Preference/ Importance Criteria. If the decision makers choose this criteria, then:

> A sample of the decision makers will rank order the goals in terms of those most important to them, assigning a rank of 1 to the goal most important to them, a rank of 2 to the second most important goal to them and so on.

19.3 Prioritization on the basis of a Chronological Criteria. If the decision makers choose this criteria, then:

> A sample of the decision makers will rank order the goals in terms of their order of occurrence in time, assigning a rank of 1 to the goal which will occur first in time, a rank of 2 to the goal occurring next in time after 1 and so on.

19.4 Prioritization on the basis of a Cost/Risk Criteria. If the decision makers choose this criteria, then:

> The sample from the decision makers will rank order the goals in order of their probability of failing, assigning a rank of 1 to the goal with the highest probability of failing, a rank of 2 to the goal with the next highest probability of failing and so on.

19.5.0 If the decision makers have chosen only one of these criteria, or another one of their own suggestion, then prioritization is completed and the evaluator proceeds with the operationalization process.

If however they have chosen more than one set of criteria, then there must be a way of arriving at a final prioritization list. That is, the criteria, where more than one has been used, need to be combined. The way this is done is decided by the decision makers as a group, using one of the methods the evaluator suggests (cf. below) or one of their own.

19.5.1 The decision makers prioritize the criteria they have used, if they have used more than one, and then they simply choose the goal ranked 1 on this most important criteria. The second goal would simply be the first ranked goal on the next most important criteria and so on.

19.5.2 Prioritization is done on the basis of adding together rankings on the different criteria. The decision makers have rank ordered their goals on more than one of the criteria. Each goal will have received more than one rank if more than one ranking criteria was used. These ranks are then added together and the one receiving the lowest total is assigned a rank of 1, the goal with the next lowest total a rank of 2 and so on.

In the event of tied ranks, i.e., if more than one goal receives the same rank number after combining ranks, the decision makers are asked to decide which of the ranking criteria used do they consider to be the most important. The tie is broken then on the basis of the tied one with the highest rank on the most important criteria being chosen.

20.0 The evaluator will draw a sample(s) from the decision making body. The number of samples is determined by the number of criteria which the decision making body has chosen in the previous step, there being an equal number of samples and criteria.

21.0 The evaluator randomly assigns criteria to each of the samples, with each sample receiving only one criteria with which to work.

22.0 The evaluator would then bring the results back to the group, i.e., the prioritized list of goals, which they would then, as a group, consider. The decision makers as a group would be asked to decide if this list represents a reasonable order in which to proceed, i.e., to begin the operationalization process. If they respond positively, the evaluator begins operationalization. If they respond negatively, then the evaluator allows the decision makers to make those last minute changes they wish.

The Goals Process

CASE III: Where the Group is a Collection of Individual Decision Makers Making Individual Decisions

Purpose: To arrive at as complete an approximation as possible of the decision makers' intents for the enterprise.

1.0 Determine if the evaluator who is going to use this Case has a knowledge of sampling techniques. If not, then the evaluator should consult someone with expertise in sampling procedures.

2.0 Select a sample from the group of individual decision makers.

2.1 Determine the amount of resources - time, money, staff - available to devote to this activity and this amount in turn will be a limitation on the size of the sample and on the sophistication of the sampling techniques.

3.0 From this sample, draw a smaller subsample, again commensurate with resources available such that the evaluator can interact on an individual basis with this smaller subsample.

4.0 Ask each member of this subsample from the group of individual decision makers, separately, to respond to the following stimulus either by writing or tape recording:

What do you really want (the enterprise) to be and to accomplish? What do you really want (the enterprise) to accomplish for yourself and for others?

(Note: These are separate questions but a single stimulus and if the first question does not seem appropriate, then the second, which is a paraphrase of the first, may be appropriate.

The evaluator substitutes the name of the enterprise, e.g., Project Upgrade, for the words "the enterprise" as is appropriate for the given enterprise under consideration.

5.0 The evaluator combines all the output from each of the individual members of the subsample which has been arrived at on an individual basis.

6.0 Perform a goal analysis of the combined output arrived at in 5.0 above.

6.1 Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line.

6.2 Eliminate redundant goal statements. A redundant goal statement is one which contains the exact same words as another statement.

7.0 The evaluator develops alternative lists of goals from selected enterprise documents.

7.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

7.2 Choose the (or at least one) primary written document which would be a major source of enterprise goals.

7.3.0 Perform a goal analysis (cf. 6.0) of this selected written enterprise document.

7.3.1 Goals occur throughout such documents and it should not be thought that 7.0 applies to just a section of the document that might be labeled "goals" or "objectives."

7.4.0 After completing this goal analysis of the primary written document, determine the amount of resources remaining to devote to continuing this activity.

7.4.1 If resources still remain, then examine another major written source of enterprise goals.

7.4.2 If going through the primary document (cf. 7.2) produces fewer than (say) 10 additional goals, then this activity is not very useful and the evaluator would not proceed with the activity, i.e., he would not perform 7.4 at all.

8.0 The evaluator develops alternative lists of goals by repeating the process outlined in 4.0 for other decision makers of the enterprise, that is, for another person or group(s) of people in the enterprise who are also decision

makers. (This is not done if the evaluator has this material as a result of a prior step.)

8.1 Determine the amount of resources - time, money, staff - which are available to devote to this activity.

8.2 Choose this other decision maker(s) in the enterprise who is likely to have goals other than the ones the subsample members with whom the evaluator is working with are likely to put down.

8.3 Perform a goal analysis (cf. 6.0) on this other decision maker(s)'s goals.

8.4.0 After completing this goal analysis for this other decision maker's goals, determine the amount of resources remaining to devote to continuing this activity.

8.4.1 If resources still remain, then repeat this process for another decision maker or group of decision makers within the enterprise.

8.4.2 An alternative to 8.4.1 would be to develop an alternative goals list from decision makers from a separate but similar enterprise.

8.4.3 If going through this process with the first "other" decision maker(s) described in 8.0 produces fewer than (say) 10 additional goals, then this activity is not a very useful one and the evaluator would not proceed any further than with this particular decision maker.

9.0 Combine all the output from 6.0 (the goal analysis of the combined output of the subsample members), 7.0 (the alternative list(s) of goals from documents) and 8.0 (the alternative list(s) of goals of others).

(Note: This combined output should be in the form of a list of goals, with a single goal per line.)

10.0 Perform a goals survey of the larger, original sample.

10.1.0 Take the list of all the goals. Have each member of the sample individually check off on the list those goals which he holds for the enterprise. He also is to star (*) the three most important ones. He does this for the entire list of goals. Then, the evaluator

would collect each sample member's list, checked and starred.

10.1.1 A special case of this; If the sample is very large, with 100 or more persons, the evaluator should perform 10.1.0 by dividing both goals and the sample of decision makers into subgroups.

10.1.2 Divide the sample into subsamples with sizes of 20 or greater. (This is done by sampling procedures.)

10.1.3 Divide the goals into groups of 100 or smaller.

10.1.4 Have an equal number of sets of goals and subsamples of decision makers. It may be necessary to adjust 10.1.2 and 10.1.3 to do this. The evaluator should end up though with an equal number of each, e.g., 10 subsamples of decision makers and 10 lists of goals.

10.1.5 Randomly assign goal lists to the subsamples such that all the goal lists are distributed, one to each subsample and with each subsample getting one list to work with.

10.2 Compile a frequency count of checks ( ) for each goal on the list and compute a percentage of the number of members in the sample who hold each goal on the list as a goal for the enterprise.

10.3 Compile a frequency count of goals which are considered important, i.e., the starred (*) goals and compute a percentage of the number of members who hold a goal as important for the enterprise.

10.4 Combine the frequencies of the stars and the frequencies of checks by weighting the stars with a value of five and the checks with a value of one.

10.5 Order the list of goals now by the combined weight of the frequencies, the goal receiving the most weight receiving a rank of #1, the goal with the next highest weight a rank of #2 and so on.

11.0 Determine if the resources are limited. If they are, the evaluator is done with the goals process and would proceed with the evaluation. If they are not, e.g., if there is more than $20,000 for the evaluation, then proceed to 12.0 and continue with the goals process.

Complex Prioritization Process: to be used only if there are abundant resources.

12.0 From this list of goals (10.5) choose the first 10 to 20 most important goals, i.e., the 10 to 20 highest weighted items. These now become the goals list to present to the group of individual decision makers.

13.0 Each member of the group of individual decision makers is provided with this list of 10 to 20 goals, depending upon resources, ordered according to weight. This list would also have an explanation of the process by which this list was arrived at, beginning with the original sample and explaining the whole procedure.

14.0 Each person is instructed, via directions at the beginning of the goals list, to choose those goals he holds for the enterprise by checking off those which are appropriate. The evaluator would then gather these checked lists from the group of individual decision makers.

(Note: The instructions would make it clear that the respondent is to check only those goals which he both holds and feels are <u>important</u> to the enterprise, <u>not</u> just to check off goals he holds for the enterprise.)

15.0 Compile a frequency count of checks ( ) for each goal on the list and compute a percentage of the number of members who hold each goal on this list as important to the enterprise.

16.0 Order the list of goals by frequency, the goal receiving the most check marks would rank #1, the goal with the next highest percentage ranking #2 and so on for all the goals on the list.

17.0 This ordered list of goals would constitute a list of prioritized goals for the group of decision makers and the evaluator would proceed with the evaluation.

APPENDIX B

Unprioritized Major Gaps in Case I

LIST OF MAJOR GAPS: NOT PRIORITIZED BECAUSE OF THEIR FAILURE TO MEET THE PRIORITIZATION CRITERIA.

(From Chapter IV: Identifying Gaps)

The left hand column is keyed to the handbook presented as Appendix A. For example, Element IV, Steps 3.0-3.4.2 refers the reader to that point in the handbook.

The comments on the right side of the page describe or define a gap(s) for the reference given on the left side of the page.

1. Element I	What if the first priority decision maker is not available?
2. Element I	Are there other decision makers which do not fit one of these cases? (If there is one which does not fit any of these four cases, then there is a gap.)
3. Element II	Is this question sufficient? Is this question enough? Is this question clear? Should there be other questions?
4. Element III	Should there be more steps in the goals analysis, e.g., impacted goals? Are there other phrase or grammar types that should be dealt with beside multiple, redundant, impacted? i.e., operationalize?
5. Element I, steps 0.1-0.3	What is singularity/plurality?
6. Element II	What is "as complete as possible?" When do we know that point has been reached?
7. Element II, step 1.0	How do you deal with different levels of specificity of goals: global, specific, b.o.'s, etc.? Should we add a test of completeness after 1.0, namely Dave Rosen's negative goals: What do you <u>not</u> want or intend.... Then do a goal analysis of it, then do a change of negatives to positive and then later, the decision maker would react to these.

		Dick suggests changing the wording completely to this: Imagine (the enterprise) as you really want it to be. Now, as you imagine (the enterprise) as you want it to be, what things do you see (the enterprise) accomplishing for yourself? for others?
8.	Element IV, steps 3.0-3.4.2	Does it matter whether this test of completeness occurs before/ after/during/concurrently with the other tests of completeness?
		Could this be done prior to 1.0 and then in the interest of saving time, and I think without losing efficiency, use the results of this as a stimulus list in 1.0?
9.	Element IV, step 3.0	Should we refer to the drop down rule here, e.g., the substeps explain it?
	3.2	What are the criteria for "primary" - first? biggest? Should a list be done and then have the decision maker prioritize?
10.	Goal analysis steps:	
	3.3.0	Same as 2.0
	4.3	Same as 2.0
	4.4.0	Same as 2.0
11.	Resources: ident. and alloc'n match steps:	
	3.4.0	Same as 3.1
		Additionally, how does one determine <u>remaining</u> resources? (Although if they have been predetermined or preallocated this does not become a proglem here.)
		How does one determine if there are enough resources to continue with this step?
		How many resources are "necessary?"
	3.4.1	Same as 3.1
	4.4.1	Same as 3.1
	4.1	Same as 3.1

12. Step 3.4.1

Might change this to a system of elicit, test of completeness, prioritization and then take the next highest priority.
How does the evaluator choose? i.e., on the basis of what criteria?
"Other enterprise personnel" - who? what? how?

13. Element V

Same as comments for Element IV.

14. Step 4.0

Need a procedure for identifying and choosing "others." (Cf. comments on 4.2 below: need to tie that information plus more detail into this step here.)
Lines 5 & 6 need more explanation.

15. Step 4.2

Need to tie this into comment #1, step 4.0.
Break this down into specific criteria:
.1 different goals
.2 decision maker chooses
How do we know other decision makers "who are likely?"
What are the criteria for these others?
What are the procedures for determining these?
How do you find out if a decision maker has goals other than those of the primary decision maker?
What does the evaluator say to these others? Is it the same as he says to the decision maker in 1.0? How does the evaluator deal with these others? How does he approach them?

16. Step 4.4.0

Cf. comment 5 in 3.4.0, although need a word changed from "document" to "others."

17. Step 4.4.1

How does he choose? Subjectively? Randomly?

18. Step 4.4.2

(This step would be remembered because of the change of adding a new step just before it.) Again, need detailed procedures:
.1 Simply ask the decision maker is there another?

.2 Make a list for him to choose from.

19. Step 5.3 — When, why, how?

20. Step 5.3 — What should be done with these type goals? Should they be remembered, filed, and if so why and how? Will they or could they be used again?

21. Step 5.5 — What happens to the goals chosen in 5.1 and 5.3? This will be partially answered by moving this step.

22. Element VII — Same comments as on the other tests of completeness.

Is this test of completeness, yet another one, necessary? It uses a lot of resources. I wonder how much it adds to the process.

23. Step 6.2 — How much interaction between the evaluator and the decision maker is appropriate and of what nature should it be?

Should we spell out the I, we, enterprise?"

24. Step 6.3 — Add a second paragraph here explaining how to do it. A simple letter to number procedure should be used.

1	A
2	B
3	C
4	D

Maybe, directions should be given.

"Relate" is a fuzzy: OFC it.

25. Step 6.3.1 — What if the activity has more than one reason? Should be some provision for dealing with this.

26. Element VIII — Even a public commitment may not mean it is not a hidden agenda, P. R. thing. Should this be a signed contract of some kind, a la Gordon?

Should we have this element here or should we have something like it after prioritization? There are two sides to the issue: If this is here it saves having to prioritize a lot of extra stuff. If you do not move it, it means

		committing himself twice and uses a lot of time and patience. It is important not to eat up the resource of the decision maker's patience.
27.	Element IX	Are there too many choices of prioritization criteria? Are there not enough criteria? Does the decision maker prioritize the whole list even if it runs to the hundreds? Can we shorten this somehow? Should there be a post-transition step as to where to go and what comes next? Similar to the transition step leading into this Goals Process? There should be some indication of what is done next. It hangs in the air right now.
28.	Step 8.1	Preference/Importance: a fuzzy: OFC it.
29.	Step 8.2	"Order of occurrence in time": a fuzzy: OFC it.
30.	Step 8.3	Would ramifications of failing be better than probability of failing? It implies a different aspect to this criteria, or yet, another criteria.

APPENDIX C

GAPS IN CASES II AND III OF THE GOALS PROCESS IN THE FORTUNE/HUTCHINSON EVALUATION METHODOLOGY

GAPS IN CASE II OF THE GOALS PROCESS

Case II: Where the Decision Maker is a Group of People who act as a Single Decision Making Body

Steps are keyed to Appendix A.

Steps	Gaps
1.0	1. The resources problem again: how to identify and allocate (cf. 3.1, I)
2.0	1. How does one know? 2. How does one figure out "relative to?" 3. If a person doesn't know sampling, will he know that sampling is/isn't required. 4. What is "small enough" and how is that judgment made?
3.0	1. How does one know "large?" 2. How does one figure out "relative to?"

Case II-A: Where the Group Size is Small Enough Compared to Resources that Sampling is not Required.

Steps are keyed to Appendix A.

1.0	1. How does one determine? 2. Are there (should there be) steps to do it. 3. Criteria for the nature of the "decision making mode?"
1.1	1. More specific instructions are needed to the evaluator about "insuring."
1.2	1. Change "methodology" to "this case," or "this procedure."
2.0	1. Same as comments for Case I, step 1.0.
3.0	1. Combines how? Put onto one list? Some other way?

4.0	1. Same comments as for the Goal Analysis in Case I, step 2.0.
4.1	1. Same comments as Case I, 2.1.
4.2	1. No additional comments.
5.0	1. How about identifying by labeling or in writing? 2. Operationalize "selected enterprise documents?" (cf. 5.2 below.) 3. Should some examples be given here?
5.1	1. The resource problem again (cf. 3.1, I).
5.2	1. Same as Case I, step 3.2.
5.3.0	1. Same as Case I, step 2.0.
5.3.1	1. Same as Case I, step 3.3.1.
5.4.0	1. Same comments as Case I, step 3.4.0.
5.4.1	1. Same comments as Case I, 3.4.1.
5.4.2	1. No additional comments.
6.2	1. Same comments as Case I, 4.2. 2. Why not the next priority decision maker?
6.3	1. Same as Case I, step 2.0.
6.4.0	1. Same comments as Case I, 3.4.0.
6.0	1. Same comments as Case I, 4.0.
6.1	1. Same comments as Case I, step 3.1.
6.4.1	1. Same comments as Case I, step 4.4.1.
6.4.2	1. Same comments as Case I, step 4.4.2.

6.4.3	1. Same comments as Case I, step 4.4.3.	
	ADD A NEW STEP HERE	This would be a new step, 6.5.4. It would call for combining the output of 5.0, goals of sample members, 7.0, documents and 8.0 goals of others.
7.0	1. Same comments as Case I, step 5.0. 2. It is also necessary to show them the list somewhere and somehow. When and how is this done?	
7.1	1. "The evaluator would at this point begin a list of goals..." Make this a new step or else instructions just prior to this substep of 7.1. 2. Same comments as Case I, step 5.1. 3. Change "they" to "decision makers."	
7.2	1. Add after the last word "enterprise," "but simply be rejected."	
7.3	1. The evaluator is responsible for writing, correcting and keeping this list. This point should be made here. 2. Same comments also as Case I, step 5.3.	
7.4	1. Refer to Case I, step 5.4 for better wording to replace this wording here.	
7.5	1. No additional comments.	
8.0	1. No additional comments.	
8.1	1. This is the resource/match problem again (cf. Case I, step 3.1).	

8.2	1.	In the last sentence, why "arbitrarily chosen?" Should this be justified?
8.3	1.	Operationalize further "redundancy?"
8.4	1.	Same comment as Case I, step 6.2.
	2.	How much interaction is there?
	3.	Does the evaluator "supervise" or "coordinate" or "direct" or what? Is this left up to the process the group uses to handle other tasks?
8.5.0	1.	Change, in line 1, "they" to "the decision makers as a group."
8.5.1	1.	Same comments as Case I, step 6.3.1.
8.5.2	1.	Same comments as Case I, step 6.3.2.
9.0	1.	In line 1, should the word "after" be changed to "in a" or to "by" or something else? After sounds awkward.
	2.	In line 3, after the word "every," add "goal or goal statement..."
	3.	Same comments also as Case I, step 7.0.
	4.	In the last part: rather than using "...with data collection on goals," would it be better to use "...with the next process," or "...with the next step,?"
9.1	1.	Change "they" to "the decision makers."
9.2	1.	Same comments as Case I, step 7.2.
	2.	Change "they" to "the decision makers."

9.3	1. Change "they" to "the decision makers." 2. Same comments also as Case I, step 7.3.
9.4	1. Change "they" to "the decision makers." 2. Same comments also as Case I, step 7.4.
Prioritization	
10.0	1. No additional comments.
10.1	1. This has the resources/match problem again (cf. Case I, step 3.1).
10.2	1. No additional comments (for 10.2 through 10.5.2).
10.3-10.5	1. No additional comments.
10.6	1. Same comments as Case I, step 8.5.

Case II-B: Where the Group Size is too Large Relative to the Available Resources and Sampling Procedures are Employed.

Steps are keyed to Appendix A.

Steps	Gaps
1.0	1. If a person doesn't know sampling, will he know that it is/isn't required? 2. How does one "determine?" 3. How does he know if he has the knowledge?
2.0	1. How? 2. If for example the evaluation is to be built into an enterprise from the beginning, is it possible the decision making mode will not yet have been established? If so, what is done? 3. Same comments also as Case II-A, step 1.0.
2.1	1. Same comments as II-A, step 1.1.
2.2	1. Same comments as II-A, step 1.2.
3.0	1. Should step 3.1 below be made a separate, major step by itself and not be a substep under 3.0 as it now is, but precede it? 2. What criteria should be considered in sampling? e.g., resources? the need of step 4.0 below? something else? 3. What kind of sample? Who determines this?
3.1	1. The resources/match problem again, cf. Case I, step 3.1 for comments. 2. Should (can) this be better spelled out, i.e., this limiting relationship of resources to tasks?
4.0	1. Same comments as Case I, step 1.0.

	2.	In line 2, "separately": define this for the evaluator; further expand it, e.g., into steps or specific instructions.
5.0	1.	Same comments as II-A, step 3.0.
6.0	1.	Same comments as Case I, step 2.0, goal analysis.
6.1	1.	Same comments as Case I, step 2.1.
6.2	1.	Same comments as Case I, step 2.2.
7.0	1.	Same comments as II-A, step 5.0.
7.1	1.	Same comments as Case I, step 3.1.
7.2	1.	Same comments as Case I, step 3.2.
7.3.0	1.	Same comments as Case I, step 2.0, goal analysis.
7.3.1	1.	Same comments as Case I, step 3.3.1.
7.4.0	1.	Same comments as Case I, steps 3.0 and 3.4.0.
7.4.1	1.	Same comments as Case I, step 3.4.1.
7.4.2	1.	No additional comments.
8.0	1.	Same comments as Case I, step 4.0.
	2.	Lines 5 and 6 need more explanation.
8.1	1.	Same comments as Case I, step 3.1, resource problem.
8.2	1.	Same comments as Case I, step 4.2.
8.3	1.	Same comments as Case I, step 2.0, goal analysis.

8.4.0	1.	Same comments as Case I, step 3.4.
8.4.1	1.	In line 3, change "second person" to "second decision maker(s)."
	2.	Same comments also as Case I, step 4.4.1.
8.4.2	1.	Same comments as Case I, step 4.4.2.
8.4.3	1.	Same comments as Case I, step 4.4.3.
9.0	1.	No additional comments.
10.0	1.	After "list," add "from step 9.0 above."
	2.	The word "collapse" should be further operationalized, explained or changed.
10.1.0	1.	In line 2, the group? Or the sample from the group? Which is it? It should be the group of decision makers (?).
	2.	The first word "take": is this a correct word? Should it be something else?
10.1.1	1.	No additional comments.
10.1.2	1.	What criteria are used? Randomness should be assumed?
10.1.3	1.	Again, what criteria? Either repeat 10.1.2 or add randomly.
10.1.4	1.	Change "end up though...": it is poor English.
	2.	This is confusing. It needs more detail, or explanation.
10.1.5	1.	This too is confusing and needs more detail or explanation.
10.2	1.	No additional comments.

10.3	1.	No additional comments.
10.4	1.	Same comments as the resource problem, Case I, step 3.1.
	2.	In this case, though, are the resources only money? It seems like it here and I'm not sure it should be.
11.0	1.	How to decide whether 10 or 20? Is it resources again, as in the next step?
12.0	1.	No additional comments.
13.0	1.	Change the word "vote," in line 7, to "decide."
	2.	The note: is this number arbitrary? It should be explained and detailed here.
13.1	1.	Change "operationalization" to "the evaluation (cf. comments in Case I, step 8.5 and II-A, step 10.6).
	2.	Change "vote" to "decide."
13.2	1.	Change "vote" to "decide."
14.0	1.	The problem with the word "collapse" occurs again here. (Cf. II-B, step 10.0)
14.1	1.	How does one write a more generalized goal?
	2.	Should/could the decision maker do this?
14.1.1	1.	No additional comments, from 14.1.
14.1.2		
14.2		
14.2.1		
14.2.2		

14.3	1. Is the generalized statement revised as new goals are added? If so, how? 2. How can this be limited to 20 or 30? By what procedure?
15.0	1. Should this be added after the word statements in line 1: "...or categories of goal statements."?
15.1	1. Change "they" to "the decision makers." 2. Also modify this, cf. II-A, step 71.
15.2	1. Same comments as Case I, step 7.2.
15.3	1. No additional comments.
15.4	1. Same comments as Case I, step 7.3.
15.5	1. This step should be deleted as a step at this point and added as a step between 15.0 and 15.1. It would make more sense there, before step 15 is actually begun.
16.0	1. Define "overlap" to mean some members. 2. A sample of what?
17.0	1. No additional comments.
17.1	1. Same comments as Case I, step 3.1.
17.2	1. No additional comments.
17.3	1. Cf. step 8.3 Case II-A and also step 2.0, Case I.
17.4	1. Same comments as Case I, step 6.2, and II-A, step 8.4.
17.5.0	1. Same comments as Case II-A, step 8.5.0.

17.5.1	1. Same comments as Case I, step 6.3.1.
17.5.2	1. Same comments as Case I, step 6.3.2.
18.0	1. No additional comments.
18.1	1. Change "they" to "decision makers."
18.2	1. Change "they" to "decision makers." 2. Same comments also as Case I, step 7.2.
18.3	1. Change "they" to "the decision makers." 2. Same comments also as Case I, step 7.3.
18.4	1. Same comments as Case I, step 7.4. 2. Change "they" to "the decision makers."
19.0	1. No additional comments.
19.1	1. The resource problem, cf. Case I, step 3.1.
19.2	1. When is sampling done?
19.3	1. Is this the same sample as in 19.2?
19.4	1. The sample question again.
19.5.0	1. No additional comments.
19.5.1	
19.5.2	
20.0	1. Recommend putting this as a major step after 19.1. 2. How big are the samples? 3. Or add a step before 20.0 about decision makers deciding how many criteria, etc. Could separate a lot of information

from the introductory words of step 19.0 and put them in here.

21.0	1.	Should this go between 19.4 and 19.5? First decision makers have to decide if they want to do it. How many. And so on. Again, how big are the samples?
22.0	2.	Same comments as Case I, step 8.5.

GAPS IN CASE III

Steps are keyed to Appendix A.

1.0	1. "Expertise": should it be defined or operationalized? 2. How does one determine? 3. How does one know if one knows?
2.0	1. Same comments as Case II-B, step 3.0.
2.1	1. Same comments as Case II-B, step 3.1.
3.0	1. The resources/match problem again, cf. Case I, step 3.1. 2. Also, the resources limiting relationship, cf. Case II-B, step 3.1. 3. Also, what is "commensurate?"
4.0	1. Same comments as Case I, step 1.0 and II-B, step 4.0. 2. No additional comments.
5.0	1. Same comments as Case II-A, step 3.0.
6.0, 6.1, 6.2	1. Same comments as Case I, step 2.0, goal analysis, and its substeps, 2.1 and 2.2.
7.0	1. Same comments as Case I, step 5.0.
7.1	1. Same comments as Case I, step 3.1.
7.2	1. Same comments as Case I, step 3.2.

7.3.0	1. Same comments as Case I, step 2.0.
7.3.1	1. Same comments as Case I, step 3.3.1.
7.4.0	1. Same comments as Case I, steps 3.1 and 3.4.0.
7.4.1	1. Same comments as Case I, step 3.4.1.
7.4.2	1. No additional comments.
8.0	1. Same comments as Case I, step 4.0; Case II-B, step 8.0.
8.1	1. Same comments as Case I, step 3.1.
8.2	1. Same comments as Case I, step 4.2.
8.3	1. Same comments as Case I, step 2.0, goal analysis. 2. Put both substeps in here also.
8.4.0	1. Same comments as Case I, step 3.4.
8.4.1	1. Same comments as Case I, step 4.4.1 and II-B, step 8.4.1.
8.4.2	1. Same comments as Case I, step 4.4.2. 2. Should there be additional wording here as in II-B, step 8.4.2?

8.4.3	1. Same comments as Case I, step 4.4.3.
9.0	1. Combine how? 2. Does the "note" need operationalization?
10.0-10.1.0	1. No additional comments.
10.1.2	1. Same comments as Case II-B, step 10.1.2
10.1.3	1. Same comments as Case II-B, step 10.1.3.
10.1.4	1. Same comments as Case II-B, step 10.1.4.
10.1.5	1. Same comments as 10.1.5, Case II-B.

ADD A NEW STEP?

10.2-10.3-10.5	1. No additional comments.
11.0	1. Same comments as Case I, step 3.1 and II-B, step 10.4.
12.0	1. Same comments as step 11.0 in Case II-B. 2. How is this presented? In what form or format?
13.0-17.0	1. No additional comments.

Additional Gaps Identified on the Elemental Level Which Apply Across All Cases of the Goals Process

These general statements of gaps occurred during the identification of gaps phase dealing with the elemental level of the process. They can be seen as gaps in any goals process, not just the one in the F/H methodology. They are listed here, though, because they did in fact result from the identification of gaps phase and also because they are in fact "gaps" in the methodology.

1. How does one know when "all" the goals of the enterprise have been identified, especially the covert, private goals of the decision makers?

2. How does one know that the goals elicited constitute action goals and not simply public image or public relations goals?

3. Is there a mechanism which can be applied to screen action from public goals?

4. What does one do with goals in conflict?

5. How can goals be separated in terms of specificity? in terms of chronology? e.g., the most important occurs last in time?

APPENDIX D

A Self-Instructional Module in the Goal Analysis Procedures of the Goals Process in the Fortune/Hutchinson Evaluation Methodology

A Self-Instructional Module in The Goal Analysis Procedures of the Goals Process in The Fortune/Hutchinson Evaluation Methodology

This module is designed to be used at step 2.0, the goal analysis step, of the Goals Process.

Purpose of this Module

The purpose of this module is to train you in the goal analysis procedures of the Goals Process in F/H. Upon completion of this module, you should be able to reliably apply the goal analysis procedures to a decision maker's statement of intent, i.e., the product of step 1.0 in the Goals Process.

Entering Behavior

Before using this module, you should have at least one of the following minimal levels of entering behavior:

1. Some familiarity, from your point of view, with the F/H Evaluation Methodology.
2. Some familiarity, in your own opinion, with the Goals Process in the F/H, including its purpose and rationale.
3. You should have progressed through the F/H Evaluation Methodology, either in an academic, classroom setting, or in an actual field application, to the Goals Process, step 2.0: "Perform a goal analysis."

At this point, determine if you are satisfied that you have met one of these three requirements. It is permissible for you to have more than minimally met them, e.g., you could be very familiar with F/H. If you have minimally met one of these criteria, in your own opinion, then this module is appropriate for your use.

If you feel you have not met at least one of these three criteria, then you should not use this module for it is designed as part of the F/H methodology and will make little sense if you do not meet the entering

behavior requirements.

Purpose of the Goal Analysis Procedures

The purpose of the goal analysis procedures is to take a decision maker's statement of intent (the product of step 1.0 in the Goals Process) and reduce it to its component parts. It helps to clarify the statement of intent and also to provide a simple, uniform format for organizing and using the decision maker's goals as stated in the initial statement of intent.

Part I: Multiple Goal Statements

The first step in doing a goal analysis is to:

> Break down multiple goal statements into single goal statements, resulting in a list of goals with one goal per line. A multiple goal statement is one containing more than a single intent, aspiration, goal or purpose.

This step has as its purpose to reduce complex, multiple statements of intent into a simple format. Basically this step simplifies the mechanics of dealing with goals.

When the statement of intent is elicited in the first step of the Goals Process (1.0) it is common to find multiple goal statements within it of which the speaker may be unaware since he is verbalizing freely. That is, often several goals might be included in a single sentence by the use of conjunctions, commas, semi-colons and so on. For example here is a goal statement:

"...to develop, cost out and test alternative schools."

This is an example of a multiple goal statement (sometimes referred to as a MUG). It contains more than just a single decision maker intent. In

fact, it contains at least three, separate, distinct purposes or intents on the part of the decision maker:

1. To develop alternative schools.
2. To cost out alternative schools.
3. To test alternative schools.

By reducing such multiple statements into their respective components, a goal analysis allows for a uniformity in dealing with them, as well as actually clarifying those intents. It also reduces the vagueness of such statements. If for instance you were asked, "Is this one of your goals" and if the answer were "yes," does this mean you hold all three components, or only one, or a combination or interaction of two of them or what? In other words, multiple statements represent multiple stimuli which can cause confusion not only to the person asked to respond to them, but to the person recording them. Not breaking down such statements introduces much confusion and confounding into the Goals Process.

Another way of conceptualizing the importance of this might be: if the purpose of evaluation is to provide data to decision makers, and if data were to be collected on this particular multiple goal statement, the evaluator would be hard pressed to know which component to provide data on (assuming it were not possible to present data on the whole statement simultaneously). Furthermore maybe only one component is really important, or possibly more important than the other two. A goal analysis will provide a basis in the evaluation for determining multiplicity or singularity and set the stage for dealing with it.

Let's practice identifying multiple goal statements from single goal statements (sometimes known as SIGS). Which of the following is a SIG (single goal statement):

1. To prepare educators for instruction, administration and research. (If you choose this, go to page 290.)
2. To prepare educators for instruction in elementary education. (If you choose this, go to page 289.)
3. To prepare educators for instruction in elementary, secondary and higher education. (If you choose this, go to page 287.)

If you have chosen statement #3 as being the SIG (single goal statement), you have not quite yet gotten a firm grasp on the notion of a single goal statement. Statement #3 is a multiple goal statement (MUG) because it contains three separate and distinct purposes or intents:

1. Preparing educators for instruction in elementary education.
2. Preparing educators for instruction in secondary education.
3. Preparing educators for instruction in higher education.

It is very unlikely that the decision maker, whose statement of intent from which this comes, intended to prepare one type of individual to be an elementary instructor and a secondary instructor and a higher education instructor. Rather, he would probably want to train three different types of persons, one in each of the three areas:

1. He would want to prepare some individuals to be elementary instructors.
2. He would want to prepare some individuals to be secondary instructors.
3. He would want to prepare some individuals to be instructors of higher education.

In other words, even though these three purposes are run together in a single sentence, that sentence is not necessarily a single goal statement. It is a single sentence but it is a multiple goal statement. This is an important clue to remember in performing a goal analysis:

CLUE!! A single sentence is not necessarily a single goal statement and quite often is a multiple goal statement.

The correct choice for you would have been statement #2. Please go back to page 286 and compare statements #1 and #2 before proceeding with this module (by going to page 291).

CORRECT!

EXCELLENT!!

You are off to a good start. You have mastered an important concept in performing a goal analysis. Give yourself one star (*) for correctly identifying statement #2 as the SIG.

Please proceed to page 291.

If you have chosen statement #1 as being the single goal statement, you have not quite yet gotten a firm grasp on the notion of a SIG. Statement #1 is a MUG (multiple goal statement) because it contains three separate and distinct purposes:

1. Preparing for instruction.
2. Preparing for administration.
3. Preparing for research.

It is very unlikely that the decision maker whose statement this is, intended to prepare one type of individual to be a teacher and an administrator and a researcher. Rather, he would probably want to train three different types of persons one in each of the three areas.

1. He would want to prepare some individuals to be teachers.
2. He would want to prepare some individuals to be administrators.
3. He would want to prepare some individuals to be researchers.

In other words, even though these three purposes are run together in a single sentence, that sentence is not a single goal statement. It is a single sentence but it is a multiple goal statement. This is an important clue to remember in performing a goal analysis:

CLUE! A single sentence is not necessarily a single goal statement and quite often is a multiple goal statement.

The correct choice for you would have been statement #2. Please go back to page 286 and compare statements #1 and #2 before proceeding with this module (by going to page 291).

Here is another example of a decision maker's statement of intent:

> to develop a theory of educational evaluation and to identify the subsequent methodology to carry out educational evaluation to develop and install a training program to develop these methods and skills in people.

Would you say that this is a multiple or single goal statement?

Multiple_____ Single_____

If you answered yes, this is a MUG, go to page 292. If you marked this as a SIG, go to page 293.

You catch on fast. You are correct. This is a MUG or multiple goal statement because it contains a number of SIGS.

Please go on to page 294.

NOPE! This is not a SIG or single goal statement. Please review pages 284-286 before proceeding to page 294.

The following phrases are taken from the statement above. Which of the following is a single goal statement reflecting an intent of the decision maker:

1. To develop a theory of educational evaluation and to identify the subsequent methodology to carry out educational evaluation. (If you choose this, go to page 295.)
2. To develop a theory of educational evaluation. (If you choose this, go to page 296.)
3. To develop a theory. (If you choose this, go to page 297.)
4. To develop. (If you choose this, go to page 297.)

Not quite. In this example, there are really two intents and the clue to this is the conjunction "and." The statement before the conjunction represents one intent and the statement after the conjunction represents another.

This should offer you another clue:

CLUE!! Chances are that if a conjunction is present, it signals a MUG. Dividing that MUG where the conjunction occurs will probably break that MUG into its SIGS.

If at first you don't succeed.....

O.K. Now please go back to page 294 and try again.

Give yourself an "A." You are correct. Statement #2 would definitely be a single goal statement included in the decision maker's statement of intent. Very good for correctly identifying it as a SIG. Please proceed to page 298.

OOPS! You went a little too far if you chose statement #3 or #4. You "overbroke" down the MUG. The statement you chose is too abbreviated and as such can not and does not sufficiently represent an intent for the decision maker.

If you chose "to develop," you should have asked yourself, "Does this represent an intent or goal of the decision maker?" The answer would have to be "no." Why? Well, you could ask yourself the following question:

> To develop what?
>
> Does the decision maker want to develop everything for everybody? This is obviously absurd. "To develop" is so broad and encompasses so many possibilities as to be totally meaningless.

CLUE!! Another clue you should use in breaking MUGS into SIGS is to ask yourself, for each SIG you break out, the question "what?" To do what; to be what; to have what: these are examples.

> For the most part, a single, simple infinitive will not reflect an intent of a decision maker because it is too general. If you have broken MUGS into infinitives, you have probably gone too far.

If you chose the statement, "to develop a theory," you also "overbroke down." You should have asked yourself, "What kind of theory?" A theory for everything? Obviously not. Again, the "what" question is helpful.

If the answer to the "what" question makes sense, and it also seems

to reflect the decision maker's intent from his statement of intent, then you probably have a single goal statement. For example,

step 1: "to develop" - What?

step 2: "to develop a theory" - A theory of what? What kind of theory?

step 3: "to develop a theory of educational evaluation."

Asking the "what" question of step 3 makes no sense. But step 3 in itself makes sense. It is also an intent embodied in the decision maker's statement of intent from which it was taken. And finally, it is a single goal statement. Thus, the statement in step 3 is the correct one.

Now, let's try breaking down a MUG into its SIGS. The following is part of a decision maker's intent:

> to speak, read and write Swahili and to learn about Tanzanian culture.

In the space below, please list the SIGS included in this MUG. (P.S.: there may be more spaces provided than needed so don't think that the number of spaces is a clue to the number of SIGS.)

_____

_____

_____

_____

_____

_____

_____

_____

All done? O.K. Then turn the page and you will find a list of the single goal statements actually contained in the example. Compare your list above

to the criteria list provided below.

You should have identified these SIGS:

to speak Swahili

to read Swahili

to write Swahili

to learn about Tanzanian culture

There were four SIGS in the example given of a MUG. Did you correctly identify all four? If so, give yourself a pat on the back and go to the next page.

If you fell a little short, all is not lost. Take a deep breath and review the module to date. Please try again.*

Breaking MUGS into SIGS can be done simply by dividing the statements on the basis of conjunctions, as done above. Also, it can be done on the basis of multiple infinitives. In this case the multiple infinitive being speak, read and write.

Other conjunctions you might be aware of that usually indicate or point out a place for dividing a MUG into SIGS are:

CLUE!! Conjunctions: too

both

either/or

neither/nor

---

*P.S. You might search out someone familiar with doing goal analysis and who has had supervised field experience in doing it if you are really lost at this point and have no idea what is going on. Is it possible you did not meet the entering criteria on the first page of the module? If you did, then please try again. If you did not, then this might be your problem and it is suggested that you might want to meet those criteria before continuing.

Certain "qualifying" words also usually indicate the presence of a MUG, as well as the point for breaking that MUG down into its SIGS.

CLUE!! Some qualifiers you might be on the lookout for are:

in addition

except for

as well as

also

in order that

because

Finally, certain grammatical constructions nearly always indicate a MUG.

CLUE!! Grammatical constructions to look for:

commas

semi-colons

colons

hyphens

parenthetical phrases

In examining MUGS try to keep these clues in mind when you begin to break MUGS into their SIGS.

Let's practice putting together all the clues so far and try breaking a complex goal statement into its single space statements.

The following is a statement of intent of a decision maker for his enterprise. The decision maker here is a School Social Worker and these represent his goals for a Pupil Personnel Services Program at a certain school.

> To measure the abilities of children in scholastic difficulty by means of testing and consultation in order to help develop group and individualized programs that will as nearly as possible meet the potentials of such children. To offer counselling to children who feel that they have problems (scholastic, emotional, interpersonal) in order to eliminate or reduce such problems in order that they may function more meaningfully. To be observant and recognize those children who are emotionally unable to function, or who are dysfunctioning, in order that appropriate school counselling can be initiated and/or referral to an outside source. To be aware if school programs, professional personnel or administrative decisions are negatively affecting children. To offer consultation, suggestions, etc., to professional staff in order to reduce student related problems or prevent them from developing. To consult with parents in order that they may understand their children's problems and help in meeting needs that the situation indicates.

Directions:

Perform a goal analysis on the statement of intent. First,

> Break down multiple goal statements into single goal statements, resulting in a list of goals with only one goal per line. A multiple goal statement is one containing more than a single intent, aspiration, goal or purpose.

Use the spaces below and on the next page in which to write down your SIGS.

(If it would be easier for you to detach these pages and work next to the statement of intent, you may do so.)

When performing this step, always put only one SIG per line!

Hint: We have been using short examples. This is a REAL test of how well you have absorbed all the clues and examples. In this exercise, there are a lot of SIGS in the example MUG given. In fact, if you identify them all you will have pretty well filled up the spaces provided. So please try to be complete!!! O.K.? Let's go.

PLEASE LIST YOUR SIGS HERE:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Continue listing your single goal statements here: (If you need more space, please continue on the back of this sheet.)

Have you identified all the SIGS* to your satisfaction? Did you remember all the clues and use them? Did you list only <u>one</u> goal (SIG) per line?

GOOD! If you will turn the page, you will find the criterion list to which to compare your list. Please check your list against the criterion and note how many you correctly identified. Please do that now.

---

*Single goal statements aren't only or just present in MUGS. Often you will find one sitting there by itself. You should write these SIGS down also on your list of SIGS. Don't leave it (them) off just because it (they) aren't part of a MUG. Had you already figured this out and done it? Good. If not, you should do so now.

<u>CLUE</u>!! All the content of the statement of intent should be listed as SIGS, with one SIG per line, whether the SIGS come from MUGS or appear as SIGS in the first place.

Criterion List of Single Goal Statements

To be used to compare your list of SIG's from the first part of the goal analysis procedures, which you just completed.

Place a check mark (✓) to the left of the item if you correctly identified it on your list.

_____ 1. To measure the abilities of children in scholastic difficulty.

_____ 2. To measure the abilities of children in scholastic difficulty by testing.

_____ 3. To measure the abilities of children in scholastic difficulty by consultation.

_____ 4. To help develop group programs that will meet the potentials of children in scholastic difficulty.

_____ 5. To develop group programs that will meet the potentials of children in scholastic difficulty.

_____ 6. To help develop individualized programs that will meet the potentials of children in scholastic difficulty.

_____ 7. To develop individualized programs that will meet the potentials of children in scholastic difficulty.

_____ 8. To meet the potentials of children in scholastic difficulty.

_____ 9. To offer counselling to children who feel that they have scholastic problems.

_____10. To offer counselling to children who feel that they have emotional problems.

_____11. To offer counselling to children who feel that they have interpersonal problems.

_____12. To eliminate the scholastic problems of those children who feel that they have scholastic problems.

_____13. To eliminate emotional problems of those children who feel that they have emotional problems.

_____14. To eliminate interpersonal problems of those children who feel that they have interpersonal problems.

_____15. To reduce the scholastic problems of children who feel that they have scholastic problems.

_____16. To reduce the emotional problems of children who feel that they have emotional problems.

_____17. To reduce the interpersonal problems of children who feel that they have interpersonal problems.

_____18. That children function more meaningfully.

_____19. That children in scholastic difficulty function more meaningfully.

_____20. That children in emotional difficulty function more meaningfully.

_____21. That children in interpersonal difficulty function more meaningfully.

_____22. To be observant.

_____23. To recognize children who are emotionally unable to function.

_____24. To recognize children who are dysfunctioning.

_____25. To initiate appropriate school counselling for children who are emotionally unable to function.

_____26. To initiate appropriate school counselling for children who are dysfunctioning.

_____27. To refer children who are emotionally unable to function to an outside source.

_____28. To refer children who are dysfunctioning to an outside source.

_____29. To be aware if school programs are negatively affecting children.

_____30. To be aware if professional personnel are negatively affecting children.

_____31. To be aware if administrative decisions are negatively affecting children.

_____32. To offer consultation to professional staff.

_____33. To offer consultation to professional staff to reduce student related problems.

_____34. To offer consultation to professional staff to prevent student related problems from developing.

_____35. To offer suggestions to professional staff.

_____36. To offer suggestions to professional staff to reduce student related problems.

_____37. To offer suggestions to professional staff to prevent student related problems from developing.

_____38. To consult with parents.

_____39. To consult with parents in order that they may understand their children's problems.

_____40. To consult with parents in order that they may help in meeting the needs of their children that the situation indicates.

Please proceed to next page.

How well did you do? Below are some level of success criteria. Count up the number of check marks you got and write that number here:

Total Number of Chex:_____

There were 40 possible correct SIGS. If you identified:

35-40	Please go to page 309.
30-34	Please go to page 310.
30 or less	Please go to page 311.

You have done VERY VERY WELL! Pat yourself on the back. Now,

How many additional goals did you identify not on the criterion list? Please go back and count and enter that total here:_____

There is no level of success criteria for extra goals identified. But you should consider this score (of number of extras identified) to be a score or grade of creativity and diligence.

If you found extra goals not on the criterion list, this is good! It shows you are a creative, diligent person. These extra goals would be very important and useful later in the Goals Process (as a test of completeness) so you would joyfully keep them on your list.

Remember, then, any extra goals are a good sign. You can grade yourself on this part of the module as to how well you did.

PLEASE PROCEED TO PART II OF THE MODULE ON PAGE 312.

(P.S. If you would like to, you might take a short break first.)

You have done fairly well. With a little more practice you will be perfect. You may proceed with Part II of this module but perhaps it might be a good idea to review Part I (not right now but before you try to do an analysis in the field). You might also have an experienced person (if one is around) check over the next goal analysis you perform. Why don't you take a short break and then proceed with Part II.

You have not quite gotten the hang of doing a break down of multiple goal statements into single goal statements. You have three options:

1. Do Part I over; OR
2. Take the criteria list and compare it to the original statement and analyze in your own terms each SIG as it relates to the statement of intent. Ask yourself the question, "Why is this a single goal statement?" You might try to do this using the clues provided in Part I of this module;

AND/OR

3. Go to an experienced person with your list and have that person go over each item on that list, explaining where your short comings are, what you are doing right, and so on.

Before you do that, you might take a short break. But please do not go on with this module until you have successfully completed Part I. Otherwise Part II will not be as useful to you as it should be.

Part II: Elimination of Redundancy

The second part of doing a goal analysis is this:

> Eliminate redundant goal statements. A redundant goal statement is one which contains the exact same words as another statement.

This task is much less complex than the one presented in Part I of the module. It is also much easier and much faster to perform than breaking MUGS (multiple goal statements remember) into SIGS (single goal statements).

This is an example of a redundant goal statement, i.e., a goal statement which is exactly like another on the list:

SIG 26: School should be a model of equal opportunity.

SIG 57: School should be a model of equal opportunity.

The exact same words occur in both statements. They are indeed redundant and in this part of the goal analysis, one of them would be eliminated from the list of goals (SIGS) by simply having it crossed off the list.

An example of similar but not necessarily redundant, goal statements might be:

SIG 36: School should be a model of equal opportunity.

SIG 37: School should model equal opportunity.

At first glance, it might seem that these two statements are the same, with SIG 37 being redundant. The reader should reexamine them if this conclusion were arrived at. The wording is only slightly different in appearance but this slight difference in wording implies a major difference in the intent of the particular decision maker holding these goals. To eliminate SIG 37 accidentally or carelessly would eliminate a whole class of behavioral intents with which the decision maker may actually

be concerned. In performing this step, then, be sure any eliminated, redundant goal statement is, in fact, redundant.

Redundant goal statements (REDS) will often occur as a result of breaking MUGS into SIGS and this is the reason this task is performed after MUGS have been broken down.

Let's try to identify redundant goal statements (REDS). Which of the following two SIGS are REDS:

1. to be self-actualizing
2. to have self-actualization
3. to be self-actualizing
4. to self-actualize

Please write your choice here:

#_____ and #_____are redundant.

PROCEED TO NEXT PAGE.

You chose #1 and #3? Tremendous. That is correct. They are redundant because they contain the exact same words. That wasn't hard was it?

O.K. Let's go to the list of single goal statements on pp. 305 and 306. Please go through this list and identify in writing, by numbers, the REDS, if any, on that list.

List of Redundant Goal Statements

#_____AND #_____

#_____AND #_____

#_____AND #_____

#_____AND #_____

#_____AND #_____

(HINT: THERE MAY BE MORE SPACES PROVIDED THAN THERE ARE REDUNDANT GOAL STATEMENTS. SO DO NOT THINK THAT # OF SPACES EQUALS # OF RIGHT ANSWERS.)

There. All through? Good. Please turn the page to find the criteria and again, compare your list to it.

Did you list no redundant goal statements? If you could find none, you were correct. There are no REDS on that list.

If you did identify some, please go back and check to see if they are indeed redundant, i.e., they have the exact same wording. Since there should be no redundant goal statements, then the ones you identified must not contain exactly the same words. Please check this out before proceeding.

If you were doing this for real, and there really were some redundant goal statements, you would have simply crossed one of the redundant statements off the list.

HINT!! Redundant goal statements are not all that common. But it is important to check for them because they do occur sometimes.

O.K. Let's proceed to the third and last part of this module.

Part III: Identifying Implied Statements

There is one last part to performing a goal analysis. We have mastered Part I, breaking multiple goal statements (MUGS) into single goal statements (SIGS); and Part II, identifying and eliminating redundant goal statements (REDS). Part III is somewhat more creative and more fun to do.* The step looks like this:

> For each goal now listed, identify and write down the implied goal(s) if any. An implied goal is:
>
> 1. one which can be considered as a prerequisite of the stated goal. For example, if a goal is "to implement an affective curriculum," one goal implied by this is "to develop an affective curriculum."
>
> and/or
>
> 2. one which needs to be or will be a direct result of one stated goal. For example, if the goal is to "develop performance criteria," one goal implied by this is to "implement the performance criteria."

Depending upon your time available and your desire, you could identify and write down more than one implied goal for each SIG listed. For example, several other implied goals could be identified for the first example above:

1. To buy an affective curriculum.
2. To investigate available affective curricula.
3. To have an affective curriculum.

While each is different, each has the same purpose: providing a necessary prerequisite to the stated goal. One can not implement an affective curriculum if one does not <u>have</u> an affective curriculum.

---

*Try it. You'll like it!!

CLUE!! In other words, one looks at the SIGS from Parts I and II and asks these kinds of questions:

1. Does this SIG need to have something else occur before it occurs, in order that it can take place?
2. Does this SIG need anything else (or extra or additional) in order for it to occur?
3. Are there any necessary preconditions or prerequisites this goal needs?
4. Does this SIG need to have something else occur after it occurs in order that it can take place?

Not all SIGS imply other goals. This is all right. But some do, such as the example given. In such cases, it is important to identify at least one implied goal.

Let's try another example. The following example is goal #2 from the list appearing on page 305.

> to measure the abilities of children in scholastic difficulty by testing.

Does this statement imply any other goals? Are any other "things" needed in order for this to occur?

The answer is yes.

Some examples of "other necessary things" might be:

1. To have or develop or buy or acquire	tests to do the measuring.
2. Some procedures or criteria or process	is (are) needed to determine "scholastic difficulty" and which children are in "scholastic difficulty."

You may not have the time or resources or energy to be so complete for each SIG, and in fact there is really no need to be so complete. But you should try to identify at least some implied goals, that is if there are any.

O.K. Let's try practicing this. Go back to the list on page 305. Look at goal #3. Write it down here:

#3. _____

Now, ask yourself, are there any implied goals here (and not already identified in the previous example)?

If so, list them here:

_____

_____

_____

_____

Turn the page to see if you are on the right track.

In addition to the implied goals identified in the previous example (i.e., goal #2), there is <u>at least one</u> additional implied goal:

To have	
or	
To get	consultation procedures to
or	measure the abilities of children
To identify	in scholastic difficulty.
or	
To buy	
or	
To something similar	

Again the exact wording is not as important as that the intent of the implied goal be identified.

Did you identify at least one goal of the above? Or one very similar to it? Good. Please proceed.

If you did not, please review Part III of this module before proceeding.

All right. Let's practice identifying implied goals.

Go to the list on pp. 305 and 306. Find goal #4. Starting with goal #4, list in writing at least one implied goal statement for each goal which implies other goals. (In many instances, a SIG does not imply any other goal. So do not think you have to identify an implied goal for every statement. You don't; just for those SIGS that imply other goals.)

Okay! Please list implied goals below, continuing onto the next page. There are a lot fewer implied goals than SIGS; in fact, fewer than half as many. So let's go on and do it.

Implied Goals List (continued)

All set? Good. On the next page there is a list of the minimum number of implied goals you should have identified. It is fine if you have identified more than the ones given. It is also all right if your wording differs slightly, e.g., a different verb, but your statement should reflect the same kind of intent as the implied goal listed on the next page.

Please turn to the next page, and again, check off those you have identified, or approximately come close to, on your list.

Criteria List of Implied Goals

Minimum Number of Implied Goals You Should Have Identified

Place a check mark (✓) next to each item you identified or approximately identified. NOTE: Unlike the other criteria lists, this one is meant only as a guide. Because of the creative nature of doing implied goals, it is unlikely you will duplicate exactly any of the goals on this criteria list. So use your judgment in deciding if you have come close to the goals on this criteria list.

CAUTION: Also because of this, PLEASE do not try to match your list item for item with the criterion list. The criterion list isn't necessarily in the same order as yours is. So please, compare your list carefully with the one below. Look around a bit if necessary. O.K.? Good. Just one last thought: we are almost done with the module. So let's go.

___1. to implement group programs that will meet the potentials of children in scholastic difficulty.

___2. to implement individualized programs that will meet the potentials of children in scholastic difficulty.

___3. To diagnose (or measure or identify or assess or define) the potentials of children in scholastic difficulty.

___4. to have counselling procedures to offer children in scholastic difficulty.

___5. to identify scholastic problems in order to eliminate them.

___6. to identify scholastic problems in order to reduce them.

___7. to identify emotional problems in order to eliminate them.

___8. to identify emotional problems in order to reduce them.

___9. to identify interpersonal problems in order to eliminate them.

__10. to identify interpersonal problems in order to reduce them.

__11. to know (or assess or define) how (or which) children function meaningfully.

__12. to have procedures to help children in scholastic difficulty function more meaningfully.

____13. to have observational measures of children who are emotionally unable to function.

____14. to have observational measures of children who are dysfunctioning.

____15. to have referral procedures for children emotionally unable to function.

____16. to have referral procedures for children who are dysfunctioning.

____17. to reduce negative effects of school programs.

____18. to reduce negative affects of professional personnel.

____19. to reduce negative effects of administrative decisions.

Notice there are 19 implied goals (minimum number that is). (Ideally this is the minimum number you should have identified.)

How many of these did you identify? (Write the number of checks here:) _____

If you identified:

15 or more please go to page 326.

Less than 15 please turn to page 327.

You did very well. You can consider yourself as having mastered this part of the module and therefore mastered the goal analysis procedures.

CONGRATULATIONS!!!!

and go to page 328.

If you identified 15 or less, please review this section of the module again. If you are still having difficulties after that review, please see someone experienced in performing goal analyses and ask them for help.

After you have done that, then go to page 328.

ONE LAST NOTE:

How many additional implied goals did you find? Please go back and count that number and write it here:

Extra Implied Goals Identified: _____

As in part one, there is no level of success criteria for extra goals identified. But you should consider this number as a score of creativity and diligence.

If you found extra goals not on the criterion list, this is good! It shows you are a creative and diligent person. These extra goals would be very useful and important later in the Goals Process (as a test of completeness) so you would joyfully keep them on your list.

All set? Please turn to the LAST page _____

LAST PAGE

NOW THAT YOU HAVE SUCCESSFULLY COMPLETED THIS MODULE, YOU ARE READY TO PERFORM A GOAL ANALYSIS ON YOUR OWN!

CONGRATULATIONS ON REACHING THIS POINT. YOU HAVE MASTERED A FAIRLY COMPLEX AND DIFFICULT PROCESS.

GOOD LUCK ON YOUR CONTINUED SUCCESS WITH DOING GOAL ANALYSES.