MICHIGAN ORGANIZATIONAL ASSESSMENT PACKAGE

PROGRESS REPORT II

August, 1975
PREFACE

This report is the second in a series by the Quality of Work Research Program of the Survey Research Center. It is intended to provide a brief picture of the work that has been conducted at the Survey Research Center (SRC) over the past three years aimed at the development of a package of instruments designed to assess planned change in organizations. As such, it is a temporary document, presenting the "state of the art" as of this point in time. It is a preliminary version of an eventual comprehensive manual for organizational assessment.

The material presented here represents the work of a large number of people. The following members of the Quality of Work Program at SRC have been highly involved in this effort: David Berg, Cortlandt Cammann, Susan Campbell, Maureen Compton, Mark Fichman, Gary Herline, Jeanne Herman, Douglas Jenkins, John Klesh, Edward Lawler, Barry Macy, Gayle Mandigo, Philip Mirvis, Michael Moch, David Nadler, Veronica Nieva, Dennis Perkins, and Stanley Seashore. Walton Hancock, Bill Goodall, and Bill Wellman from the Department of Industrial and Operational Engineering and the Bureau of Hospital Administration, University of Michigan have also been collaborators in this effort. Finally, much of the work described here grew out of the initial work in this area which was done by researchers at Cornell University.

The work described here has been made possible by the support provided by a number of different funding agencies. Primary support
has come from the Ford Foundation and the Economic Development Administration of the U. S. Department of Commerce. Support for the development of specific instruments and procedures came from the Manpower Administration of the U. S. Department of Labor and the National Commission on Productivity.

It is hoped that this report will enable potential users and potential funding agencies to understand the nature and scope of the assessment package which is under development at the present time. Since this total effort is far from complete, comments, criticisms, and suggestions are welcome.

David A. Nadler

August, 1975
TABLE OF CONTENTS

Part I - The Quality of Work Research Program and the Organizational Assessment Package

A. Background of the Quality of Work Program
B. The Quality of Work field experiments
C. Underlying assumptions of the measurement package
D. Brief description of the measurement package
E. The process of assessing organizational change

Part II - Major Components of the Assessment Package

A. The Michigan Assessment of Organizations questionnaire
B. Union and labor-management relations questionnaire
C. Organizational structure interview forms
D. Structured job observation guide
E. Behavioral/economic measurement system
F. Technical systems analysis instruments
G. Goals and instruments for unstructured observation
H. The assessment role - guidelines

Appendices

1. Short form questionnaires
2. Listing of Quality of Work Research staff
Background of the Quality of Work Program

The twin problems of how to make organizations more effective and how to improve the quality of working life experienced by organization members constitute a crucial issue. While there has been much work aimed at developing different techniques of improving organizational effectiveness and/or the quality of working life, there has been relatively little rigorous and programmatic research in this area. While many organizational consultants, "change agents", or "interventionists" currently work in organizational settings, there have been relatively few efforts to seriously and objectively evaluate the work of different change agents in different settings. (For a few of the exceptions, see Bowers, 1973 or Tichy, 1974).

In 1973, in response to requests by the National Commission on Productivity, and in collaboration with Cornell University, researchers at the Institute for Social Research (ISR) of the University of Michigan began to develop measurement approaches for the evaluation of demonstration/research projects involving organizational intervention or planned change. The basic plan proposed by the Productivity Commission was to launch a series of field experiments. In each project a different external consultant would work with a different organization. These projects were unique in their design in that they called for distinctly separate consulting and research roles, standardized methods of evaluation, and in the involvement of labor unions.

The labor involvement was particularly significant. Much of the work of organizational change agents to date had ignored the importance
of organized labor in the American work scene. Change agents have usually been introduced into organizations by management, have had more intimate contact with management figures, and have been generally compensated by management. Because of this, employees have often assumed (sometimes correctly) that the change agent's primary responsibility is to a specific management group rather than to the organization as a whole. Partially as a result of this situation, organized labor has not been highly involved in organization and job redesign efforts. Given this situation, the projects as originally conceived were to be conducted exclusively in sites where a significant number of employees were represented by a labor union and to be cosponsored by both management and labor.

With a change in the goals and orientation of the Productivity Commission, ISR began to assume a more central role in the proposed series of field experiments. With the support of the Ford Foundation and the Economic Development Administration of the U. S. Department of Commerce, ISR emerged as one of the major institutional sponsors of this work. During that year, the National Quality of Work Center (NQWC) was created as an organization affiliated with ISR, and with offices in Washington, D. C.

NQWC is a continuing private-sector organization established to develop, coordinate, and implement joint union-management experimental projects. It identifies change sites, gains union-management agreement, helps the site identify qualified consultants, and has general management responsibility for the projects. In short, it provides the action and facilitative functions in the joint ISR/NQWC venture. Its functions include developmental work with management, labor, and funding groups as well as dissemination of information about the quality of work effort.
The Quality of Work Field Experiments

The core of the Quality of Work research program is the series of field experiments mentioned above. To date, four experiments have been started and two more are in the start-up phase with planned beginning dates in the next six months. In accordance with the basic quality of work experimental model, these experiments all share the following characteristics:

1. **Joint labor-management direction.** In each site, a joint labor management committee has been established with the mandate of coordinating and directing the project within the organization. This committee, called the "Quality of Work Committee" in each site, serves as the focal point of the intervention and is the primary client of the consultant in each organization. The Quality of Work Committee has the responsibility for choosing the consultant(s) for the project, for working with the consultant in planning and implementing intervention work, for working with researchers to help evaluate the project, and for having final say over project activities at the site.

2. **Separate consultant and research teams.** The consultant and evaluation research roles are distinctly separate in each site. The consultant, as indicated above, is chosen by the Quality of Work Committee and is in a purely consultative role vis-a-vis the organization. The evaluation research team is provided by University of Michigan (or cooperating academic institutions) and has the mandate of describing, assessing, and evaluating the accomplishments at each site.
The rationale for this approach is based on evidence
(Morse & Gordon, in press) that the relative perspective of the
evaluation researcher is important, and that systematic differen-
ces exist in the quality and nature of evaluation done by inde-
pendent researchers as opposed to evaluation done by those who
are also conducting the intervention. While some have made the
case for the combination of the change-agent and researcher/evalua-
tor roles (e.g., Argyris, 1971), alternative models which provide
for separation of those roles have also been discussed in the past
(e.g., Barnes, 1967). The combination of roles has some advantages,
but it also has major disadvantages, particularly for comparative
research. Research goals may get subordinated to change goals,
there is an inherent conflict of the roles within one individual
or team, there are problems of bias (intentional or unintentional)
in reporting change activities and their results, and there is a
lack of standardization or equivalency of evaluative methods across
different change agents. Thus, given the comparative nature of
this research and the problems of multiple role models, the ex-
periments have been designed to separate the roles of change agent
and evaluator/researcher.

3. **Standardized evaluation criteria and methods.** In each site,
a basically standard set of instruments and procedures is used to
assess the effects of the intervention. The evaluation instru-
ments, developed by ISR are used in different sites to evaluate
the work of different consultants. In each site, the instruments
are modified to be responsive to the issues, problems, and culture
of the specific organization, while still tapping a basic and consistent set of variables.

4. **Control and/or comparison groups.** As part of the experimental design, in each site, control and/or comparison groups are identified. The control group, which may be a group, unit, department, or organization similar to the site of the intervention, is subjected to a similar but less comprehensive version of the assessment methods used at the experimental site.

5. **External funding.** In order to provide for true joint union-management sponsorship and also to insure the integrity of the research design, funding for both the research and consultative components of the experiments are usually obtained from external sources. These sources have included governmental agencies and private funding groups.

Table 1 provides a brief description of the four sites where Quality of Work experiments currently are being conducted.

**Underlying Assumptions of the Measurement Package**

It is within the context of the Quality of Work Program and the field experiments that the ISR organizational assessment measurement package has been developed. This package of instruments, processes, and guidelines, serves as the basis of the standardized evaluation at each of the experimental sites. The package has been developed to ultimately be used to evaluate a range of different interventions in different organizational settings. A goal of the developers of this package is that through their use and refinement in the quality of work experiments, the instruments may eventually be available to all interested labor and
<table>
<thead>
<tr>
<th>Experimental Site</th>
<th>Consultant</th>
<th>Evaluation/Research Group</th>
<th>Date Started</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>An auto parts manufacturing plant.</td>
<td>Michael Maccoby Harvard University</td>
<td>Institute for Social Research The University of Michigan</td>
<td>6/74</td>
<td>Ford Foundation Department of Commerce The site organization</td>
</tr>
<tr>
<td>A coal mine in the northeast</td>
<td>Eric Trist University of Pennsylvania</td>
<td>Graduate School of Industrial Administration Carnegie-Mellon University</td>
<td>4/74</td>
<td>Ford Foundation Department of Commerce The site organization</td>
</tr>
<tr>
<td>A large division of a southern public utility</td>
<td>Arnold Judson A.D. Little Co. Cambridge, Mass.</td>
<td>Institute for Social Research The University of Michigan</td>
<td>8/74</td>
<td>Ford Foundation The site organization</td>
</tr>
<tr>
<td>A medical center in a large eastern city</td>
<td>To be chosen</td>
<td>Graduate School of Business Columbia University</td>
<td>6/75</td>
<td>Health Services Adm. U.S. Department of Health, Education &amp; Welfare</td>
</tr>
</tbody>
</table>
management groups for use in evaluating organizational interventions.

Before listing the components of the measurement package, it is important to enumerate some of the basic assumptions which underly the measurement approach. They are a set of assumptions about organizational behavior, organization change, and measurement:

1. **Organizational behavior is multilevel and involves multiple variables; therefore the measurement of change must be multilevel and multivariate.** Many of the attempts to assess organizational change have been focused on one group, one level of analysis, or one conceptual target and have thus missed some of the important implications of the intervention at hand (Nadler & Pecorella, 1975). The practical implication of this is the need to measure a large range of variables dealing with individuals, groups, and organizations. It also implies the collection of data about perceptions, attitudes, behavior, processes, structure, technology, productivity, and environments, rather than the isolated collection of data in any one of these areas. It also implies that the measurement of organizational change is by definition an interdisciplinary effort, requiring the input of a range of professionals including psychologists, sociologists, industrial engineers, accountants, economists, and functional specialists for specific organization types.

2. **Comparative assessment of change efforts requires a basically standardized package of instruments.** If different interventions are to be assessed, then any comparison requires some degree of standardization of criteria for evaluation. While problems, issues, and therefore variables may change from one organization to another, and while different change agents may have different goals, some general core set of variables needs to be measured in all settings. Thus, the approach
which is used must involve the construction of a rather broad "measurement net" which attempts to tap a wide variety of variables, some of which may be affected by a particular intervention and some of which may not.

At the same time, it is important to recognize the need to make modifications in the measurement net as it is used in different organizational environments. Two factors are important here. First, organizations of different types, with different goals and different technologies will have different classes of critical issues (Perrow, 1970) requiring measurement of different variables. Second, there is a need to modify instruments that collect data directly from organization members so that these instruments are consistent with the culture of the organization. There is evidence that questionnaires, for example, that are perceived as being more "empathic" can obtain different kinds of data than a completely standardized nonempathic instrument (Alderfer & Brown, 1972).

Thus, the adequate measurement of organization change requires a core set of standardized instruments and processes which can be modified to meet the needs of a research site while still maintaining basic consistency of measurement content and process across different sites.

3. The assessment of change in organizations should be done using multiple methods. For many years there has been criticism of the tendency of many researchers to rely on a single method of data collection (frequently self-report interviews or questionnaires) for research on behavior in organizations. The drawbacks of total reliance on self-report methods have repeatedly been noted (Webb, Campbell, Schwartz, & Sechrest, 1966). Thus, an effective package of instruments for
assessing change in organizations must include the collection of data using a variety of different instruments and data collection methods. The range of methods should probably include direct structured observation of behavior, collection of data from organizational records, clinical observation of interpersonal and organizational process, measurement of objective structural characteristics, etc., as well as self-report data through questionnaires and interviews.

4. An assessment package should have some underlying theoretical model of organizational functioning. The collection of data should not be guided purely by chance, opportunity, or random choice of variables. It should reflect some notion of why individuals behave as they do in organizations, how groups function, and how systems operate. From this notion should come the variables that are important to measure. On the other hand, measurement should not be overly or narrowly constrained by such notions. In the absence of a generally accepted meta-theory of organizational functioning at all levels, it would be premature to allow any one theory to specify all of the variables to be measured.

Within these limits, the underlying model used for the measurement package presented here is based on the conception that a great deal of behavior in organizations is determined by the conscious choices of individuals based on their perceptions of the consequences of their behavior and within the constraints provided by existing structures, technologies, or human processes (Vroom, 1964; Lawler, 1973). In addition, other group and organizational theories have been drawn on, particularly for the measurement of specific areas (i.e., leadership behavior, structural/contextual variables, technology, etc.).
Brief Description of the Measurement Package

Based on these assumptions, a package of instruments is currently being developed to be used for assessment. While not all instruments are used at all sites, the major components of the package are as follows:

1. The Michigan Assessment of Organizations (MAO) questionnaire - a questionnaire for collection of data about employee attitudes and perceptions. A basic core instrument covering a range of variables has been constructed as well as a series of modules enabling more in-depth measurement in specific areas. Modules have been developed in the areas of job and task characteristics, individual attitudes and perceptions, leader behavior, work group process, pay and performance evaluation, intergroup relations, and individual differences. The MAO and its modules provide a pool of questionnaire items which can be drawn upon to construct questionnaires for specific sites.

2. Union and labor-management relations component - includes interview schedules and questionnaires designed to examine issues related to union organization, member involvement, and internal union processes, as well as labor-management relations and general attitudes towards unions.

3. Organizational structure interviews - a series of structured interview forms to be used with department heads and key informants to collect data about the dimensions of organizational structure and context. The interviews are used to collect perceptions of line and staff personnel as well as data from archival sources.

4. Structured job observations - A structured guide for rating jobs and tasks according to their psychological dimensions, (see Jenkins, Nadler, Lawler & Cammann, 1975). Instrument is designed to be used by observers without any advanced training other than a two day observation workshop.

5. Behavioral/economic measures - Standardized forms and methods of data collection and/or retrieval from archival records to obtain data on specific employee behaviors (i.e., absenteeism, turnover, non-productive behavior) and their associated costs. Included are pretested definitions of behaviors and methods for assessing costs (see Macy & Mirvis, 1974).

6. Technical systems analysis component - Observational, archival, and questionnaire measures of the functioning of the technical segments of the organizational system, including measures of information adequacy, work flow, technological potential, productivity, etc.
7. **Site historian/observational component** - Guidelines and instrumentation for the on-going clinical observation of organizational process and the activities and events of specific interventions.

8. **Assessment role guidelines** - A set of guidelines and operating rules for individuals and/or teams who are in the role of assessing the work of a change agent. The focus is on the relationship between the organization, the change agent, and the assessment team and the potential conflicts involved in the research/assessment role.

Each of the above components is in a different stage of development. Some have been used, tested, and refined, while others are still in the relatively early stages of development. More detail on the nature and current state of each component is provided in Part II of this report.

The components have been used in a number of different sites in addition to the quality of work experiments mentioned already. Table 2 provides a brief listing of the sites where at least one major segment of the measurement package has been used during 1974 and 1975. Within the context of other research projects, these sites have been used to design, develop, and pre-test the various components of the measurement package used at quality of work sites.

**The Process of Assessing Organizational Change**

As important as the content and form of the measurement components, is the process by which those instruments are used. Two specific issues need to be considered in relation to process. The first is the question of the evaluation role within the context of the three-party relationship which is constructed at quality of work sites. (A detailed discussion of those issues is included in Part II of this report.) The second is the more mechanistic issue of how the instruments are sequenced and used in a typical quality of work site.
TABLE 2
Sites where Components of the Measurement Package have been Used

<table>
<thead>
<tr>
<th>Site description</th>
<th>Initial dates</th>
<th>Number of employees</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. An auto parts manufacturing plant in Tennessee</td>
<td>6/74</td>
<td>400</td>
<td>A QOW site</td>
</tr>
<tr>
<td>2. A coal mine in Pennsylvania</td>
<td>4/74</td>
<td>200</td>
<td>A QOW site</td>
</tr>
<tr>
<td>3. A small manufacturing plant in Ohio producing products for making metal castings.</td>
<td>1/74</td>
<td>85</td>
<td>2 waves of data collection were done</td>
</tr>
<tr>
<td>4. Twenty branches of a commercial bank in Ohio</td>
<td>3/74</td>
<td>300</td>
<td>2 waves</td>
</tr>
<tr>
<td>5. A manufacturing plant in Connecticut</td>
<td>4/74</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>6. A plant in Kansas with a process technology, also part of a large corporation</td>
<td>6/74</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>7. An engineering design division within a large southern public utility</td>
<td>9/74</td>
<td>400</td>
<td>A QOW site</td>
</tr>
<tr>
<td>8. A midwestern hospital</td>
<td>10/74</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>9. A pharmaceutical laboratory in North Carolina</td>
<td>11/74</td>
<td>100</td>
<td>2 waves</td>
</tr>
<tr>
<td>10. A large division of a southern public utility</td>
<td>4/75</td>
<td>500</td>
<td>A QOW control site</td>
</tr>
</tbody>
</table>

------------ Planned applications in the near future ---------------

| 11. Selected wards of a large metropolitan hospital | 9/75 | 150 | |
| 12. A national sample of units of a private social service agency | 11/75 | 200 | |
The three party relationship

For the quality of work field experiments, a specific model of the site, consultant, and evaluation relationship has been developed. This three party model is based on the assumption that the intervention and assessment roles should be separated and envisions the constant interaction of three groups in each field experiment:

Party 1 - the organization - Since the research sites are unionized the model calls for the creation of Quality of Work Committees to oversee the project. This group represents the interests of various employee groups and the organization as a whole.

Party 2 - the consultant/change-agent - Consultants will be chosen by the Quality of Work Committee in each site and the primary client of the consultant will be that group.

Party 3 - the evaluation/research team - Researchers' responsibilities include administering the measurement components at regular intervals as well as on-site observation and analysis of the activities of the change agent and the events in the organization.

While this model has a number of obvious advantages, including the increased comprehensiveness and objectivity of the research effort, it also has some inherent problems which should be mentioned. First, measurement itself may serve as an intervention. The actual assessment activities may in themselves be interventions into the organizational life, confounding the assessment task and potentially interfering with the activities of the change-agent. Second, there may be perceived lack of reciprocity between the evaluation team and the other parties. An assessment team, utilizing information which will not be fully shared for up to three years, demands a great deal of the organization and its members but offers very little in short run return. Third, intergroup tensions may result. The three party model offers a potentially volatile situation possibly resulting in strained on-site
relationships between the consulting team and the research team doing the evaluation. Fourth, there may be role confusion since organization members often do not distinguish between the evaluators and the consultants, perceiving them all to be outsiders to the organization. Fifth, and finally, the pure research role with the broad mandate indicated here may lead to over measurement. The establishment of the broad measurement net may seem excessive to some organization members and this may have implications for the quality of the data obtained and the relationships between the assessment team and other parties.

There are no clear answers to these problems, although they have been addressed in part two. As the work continues using this model, it is hoped that additional ways will be identified to cope with the problems created by the three party model while still realizing the benefits of this arrangement.

The sequence of assessment

Although the way in which the components will be used does vary from site to site, a general model of the sequence of the assessment can be constructed. (See figure 1). The assessment or evaluation team involves a number of different individuals. The key person in the team is the Site Coordinator who is generally responsible for managing the assessment effort. The Site coordinator is usually assisted by one or more observers (usually graduate students) who, with the site coordinator, conduct all of the on-site clinical observations. As different components of the package are used, specialists in different areas consult with the site coordinator and aid in the construction of instruments in the different areas. Usually, these specialists also aid in
A TIME-SEQUENCED MODEL OF ASSESSMENT

RESEARCH/ASSESSMENT ACTIVITIES

- Quality of Work Committee and Evaluation Team agree on assessment plan.
- Assessment team introduces self to organization members
- General orientation interviews
- Administration of measures

Baseline
- MAO Questionnaire
- Union questionnaires
- Structure interviews
- Technical systems analysis
- Job observations

SECOND WAVE

THIRD WAVE

Data integration and analysis
Feedback to site and consultant

CONSULTATION ACTIVITIES

- Quality of Work Committee interviews potential consultants
- Quality of Work Committee makes consultant choice
- Consultant enters organization to begin work
- Consultant work terminates

Data collected periodically

Establishment of systems to collect the following data:
- behavioral/economic
- productivity
- financial

Unstructured ongoing observation conducted on site.
the analysis and interpretation of data collected in their particular areas of interest. Thus, the site coordinator works with a range of people who bring special assessment skills to bear on the project.

The assessment work begins as the Quality of Work Committee is in its formative stages and beginning the process of choosing a consultant. It begins by the QOW Committee and the evaluation team agreeing to a general plan for assessment. This includes strategies for measurement, arrangements for "empathizing" instruments, designation of control sites, etc. The next step involves the assessment team introducing itself to members of the organization in order to familiarize organization members with the research component of the experiment and also to answer employee questions, deal with their anxieties, etc. (as recommended by Kahn & Mann, 1952; and Levinson, 1972). This is followed by general orientation interviews by the members of the assessment team. These interviews allow the team to get an initial impression of the site organization and also allows collection of data about what changes need to be made in the standardized instrument before application in the particular site.

As indicated by figure 2, the assessment then evolves into a three-pronged activity. First, on-going observation by the site coordinator and his/her observers continues throughout the entire experiment. Second, static measures are administered (including the MAO, union measures, structure interviews, technical systems analysis, etc.) to obtain base line data (before the consultant enters the immediate system) and to obtain subsequent measurements in second and third waves. Third, on-going data collection systems are established to collect data from organizational records including cost data, productivity data,
and data about employee behavior (for example, absenteeism or turnover).

At the end of the Quality of Work Project (anywhere from 18 months to three years after the start of the project) the final static measures are administered, the data from all sources is integrated and analyzed, and feedback is given to the site, consultant, and other interested parties.

It should be noted that this model is essentially a bare-bones model of the assessment process. During the course of the assessment other kinds of data are collected (for example, following suggestions from the consultants) and integrated into the on-going record of the experiment. Also, there are variations in how the model is applied from site to site. Most importantly, this model, like all of the parts of the measurement package is still in its developmental stages and thus will be modified as more experience is gained in its application in a variety of different settings.

Summary

The first part of this report has attempted to present an overview of the history, development, present state, and use of the Michigan Organizational Assessment Package. As such, it is a description of the state of a research effort at one point in time.

In Part II, the specific components are described in more detail, and instruments that have been developed are included.
Information concerning further developments, use of components, and the Quality of Work Program in general can be obtained by contacting any of the following individuals:

- Edward E. Lawler III
- Stanley E. Seashore
- Cortlandt Cammann

Survey Research Center
Institute for Social Research
The University of Michigan
Ann Arbor, Michigan 48106

(313) 764-8449
REFERENCES


PART II - MAJOR COMPONENTS OF THE ASSESSMENT PACKAGE

Introduction

This section of the report includes information about each of the major components of the assessment package. For each component, there is an introductory statement providing an overview of the purpose and the underlying conceptual and theoretical basis for the component. This is followed by copies of the instrument or instrumentation as is currently available. In some cases, instruments are included in a generalized form, while in others the instruments included have been modified for a specific site. Finally, where appropriate, lists of scales, items, or scoring methods have been included for each component.

As will be seen, the different components are at different stages of development and reflect varying degrees of readiness to be used in new settings. Those interested in obtaining further information about any specific component should contact the individuals listed on the first page of the introductory statement for each component.

The components are included in the following order:

A. The Michigan Assessment of Organizations questionnaire
B. Union and labor-management relations questionnaire
C. Organizational structure interview forms
D. Structured job observation guide
E. Behavioral/economic measurement system
F. Technical systems analysis instruments
G. Goals and instruments for unstructured observation
H. The assessment role - guidelines
A. THE MICHIGAN ASSESSMENT OF ORGANIZATIONS QUESTIONNAIRE

Cortlandt Cammann *
G. Douglas Jenkins
David A. Nadler

The Michigan Assessment of Organizations (MAO) is a broad-guaged employee attitude survey. To date, it is the most extensively tested and researched component of the Michigan Assessment Package. The MAO is designed as a semi-standardized questionnaire which can be used to tap a larger number of organization characteristics through the perceptions of the members of that organization. In its entirety, it consists of approximately 350 items, which are combined to produce about 100 scales addressing such areas as job characteristics, employee satisfaction and other attitudes, work group functioning and characteristics, leadership style and supervising behavior, organizational structure, compensation and performance evaluation, intergroup relations, employee beliefs, values and characteristics.

History

The development of the MAO has consisted of three phases to date. The first phase of the development of the MAO began in April 1973, in conjunction with the National Commission of Productivity's Quality of Work Program. The intent was to construct a comprehensive survey which would reflect employee attitudes and feelings about a broad range of organization characteristics. After an extensive period of item collection resulting in over 1500 items from existing questionnaires, research reports, and our own

*names listed in alphabetical order
design, a pretest was conducted with about 250 subjects from the Ann Arbor area. The results were used to refine the instrument and reduce its number of items. A report of the product of this pretest and a statement of the theoretical underpinnings of the original instrument are found in Cammann, Jenkins, Lawler, and Nadler (1973). The completion and distribution of this report marked the end of the first phase of the development of the MAO.

The second phase of the development of the MAO consisted of employing various versions of the MAO instrument in a number of organizations. The purpose of this phase of development was to collect responses to the roughly 650 items in a number of different organizational settings for empirical analyses. During this phase, data were collected from approximately 1900 respondents at eight of the ten sites listed in Part I of this report. These data were then subjected to a number of data reduction techniques (such as factor analysis and multidimensional scaling) to search for a structure to the data and isolate unreliable items. Based on the results of these analyses, a number of items were removed or replaced with new items. Items were then combined to form scales. Both conceptual and empirical justification was used.

The instrument included here represents the culmination of the second phase of MAO development. It is briefly described in a section below. The items and scales it contains are also presented prior to the instruments themselves.

The third phase of MAO development is just beginning. The MAO of this stage bears a very different structure than its ancestors. First, it consists of a "core" set of items which were selected to present an overview of most areas of organizational functioning. Second, a series of models
are provided to examine these areas in greater depth and breadth. The goal of Phase III is to construct an instrument whose scales exhibit strong reliability, whose relational structure is generally specified, and on which a large normative data bank exists so that meaningful comparison can be made between organizations. The third phase of development is expected to take from 12 to 18 months.

The Michigan Assessment of Organizations - Core and Modules

As noted above, the MAO in its current form consists of a set of "core" items selected to provide a broad-gauge assessment of the state of an organization and a set of "modules," a collection of items selected to examine specific areas of organizational functioning in greater depth and breadth. Furthermore, it is constructed in such a way to allow the evaluation or research to select from among its different components depending upon particular organizational circumstances and conditions. It may be "empathized" (Alderfer and Brown, 1972) as well by inserting the name of the organization, or items generated to address unique organizational problems or areas of interest. In general, then, the MAO is a semi-standardized instrument designed to provide the user with the advantages of a standardized instrument (normative and comparative data, known structure, etc.) and those of the tailor-made survey (empathetic construction, focus on unique organizational problems and areas of interest, etc.).

The Core

The core instrument consists of approximately 150 items covering areas of organizational functioning addressed more fully in each of the
modules described below. It is constructed in such a way that should a
user determine an area (e.g., task characteristics of work groups) is of
particular importance or interest, that particular section of the Core
instrument can be replaced with the module. All items contained in the
Core instrument are also contained in the area module.

The Modules

The MAO consists of ten standardized modules. Each is described
briefly below.

Module 1: Demographics. This module contains items addressing the
various demographic characteristics of individual respondents, such as
age, marital status, ethnic identification, etc. Items were constructed
only for those demographic characteristics for which data could not be
more easily or accurately obtained from other sources, such as organiza-
tional records (e.g., wage rate or salary level, supervisory status, etc.).

Module 2: General Attitudes. This module addresses very general
employee attitudes such as job satisfaction, intention to turnover, in-
trinsic motivation, and performance outcomes.

Module 3: Job Facets - Importance and Contingencies. This module
assesses a number of aspects of an individual employee's orientation
and reaction to his job. It assesses the subjective importance of vari-
ous job facets and work outcomes, employee satisfaction with those facets
and outcomes, and employee beliefs that especially good or poor perform-
ance will lead to an increase or a decrease in the extent to which those
facets are present in his job.

Module 4: Task and Role Characteristics. The purpose of this module
is to assess in depth the employee's perceptions of the characteristics of the tasks performed as a part of his job and descriptions of the constraints and pressures placed upon him in his role as a job holder. The portion of this module specifically addressing task characteristics is currently under extensive revision, and the module as included here represents an early stage of development.

Module 5: Work Group Functioning. The fifth module addresses work groups in organizations with a primary focus on describing how the work group functions, its process, the characteristics of its members and their behaviors, and its effectiveness.

Module 6: Supervising Behavior. This module examines the way in which employees' supervisors are perceived. Descriptions of competence, style, and general leadership behavior are obtained.

Module 7: Intergroup Relations. This module assesses the general quality of intergroup relations. Not only is intergroup conflict addressed, but resolution of conflict as well. This module has yet to be tested in a full situation, and thus, substantial revisions in it are to be expected in the future.

Module 8: Influence Structure. In different organizations, different people are able to influence different kinds of decisions. This module assesses employees' attitudes about to what extent they feel they can and should influence decisions made in the operation of the organization.

Module 9: Individual Differences and Outcomes. This module attempts to assess the employees' attitudes about their life in general and their reactions to their jobs in a more global framework than does Module 2. Specifically, it attempts to determine the effect that the work performed,
the job environment and the organizational experience has on the employees' feelings about their lives in general and their mental well-being.

**Module 10: Compensation and Performance Evaluation.**

Pay and performance evaluation is a common thread among work organizations. This module addressed not only the employees' attitudes about pay and performance evaluation, but, more importantly, their perceptions of the process of these organizational activities.

**Tailoring the MAO**

As noted, the MAO is constructed to be a semi-standardized organizational assessment instrument. It is, of course, not possible in advance to specify every potential content area which may be of relevance to a given organization. Given the need to adapt the instrument to specific organizational setting, a limited number of items generated to meet the specific areas of interest for an organization may be added to any of the relevant modules described above. In addition, a set of site specific items may be generated and treated as an "eleventh module."

**Theoretical Underpinnings of the Module**

There is no single organization theory upon which all of the modules of the MAO are based. Each module was constructed to represent the existing state of knowledge of that particular area. The instrument as a whole represents a systems view of organizational behavior (Katz and Kahn, 1966) and a belief that behavior in organizations is based on conscious

*This module is under revision and is not included in the sample. It will be included and noted upon the completion of that revision.*
choice on the part of organization members (Vroom, 1964; Lawler, 1973). Statements of the theoretical underpinnings of each of the individual modules are in preparation currently and will be attached upon their completion as addenda to this program report or included in a subsequent program report.

REFERENCES


On the following pages are listed the scales and items which make up the different modules of the MAO. In each case, the scale, measuring a concept, is listed, followed by the questionnaire items which make up the scale.

The number listed next to each item corresponds to the keypunch code found to the right of each item in each module. Those items marked with an asterisk (*) are the items which are also included in the short form "core questionnaire" of the MAO.
Module 1

Demographics (Scales and Items)

\Educational level

* 122 What is your educational level?

Family and dependents

* 123 Are you married?
* 128 Is your income the primary source of support for your immediate family?
* 136 How many dependents do you have (others who depend on your income for their financial support)?

Racial identification

* 130 Are you Black, oriental, American Indian, White, none of above

Sex

* 121 Are you male, female?

Tenure

* 124 In what year did you first come to work for this organization?
* 129 How long have you been in your present job in this organization?

Urban-rural

* 133 What was the size of the community in which you spent the largest portion of your life up to the time you finished high school?

Age

* 134 How old were you on your last birthday?
Module 2

General Items (Scales and Items)

Intrinsic motivation

*231 I feel bad when I do a poor job.
*221 I get a feeling of personal satisfaction from doing my job well.
*227 Doing my job well gives me a good feeling.

General job satisfaction

*224 All in all, I am satisfied with my job.
*230 In general, I like working here.
*232 In general, I don't like my job.

Organizational involvement

226 What happens to this organization is really important to me.
229 I don't care what happens to this organization as long as I get my pay check.

Job/work security

*237 How likely is it that you might be fired or laid off?
*235 How likely is it that you could find a job with another employer with about the same pay and benefits you now have?

Turnover

*236 How likely is it that you will actively look for a new job in the next year?
*228 I often think about quitting.
*225 I will probably look for a new job in the next year.

Internal turnover

*223 If I had the chance, I would take a different job within this organization.

Self reports of performance

*234 In general, do you do quite high quality work?
*233 In general, do you do large quantities of work?
Effort

I work hard on my job.

During the coming months, how hard do you plan to work? How much effort do you intend to put into doing your job?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not plan to work hard at all; almost anybody else will work harder than me</td>
<td>I plan to work about as hard as everybody else,</td>
<td>I plan to work harder than anybody else in this organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Effort → Performance Contingencies

*239 Working hard → high productivity
*243 Working hard → doing my job well
*245 Working hard → good job performance

Interpersonal Contingencies

242 Working hard → pressure from co-workers not to work so hard
240 Working hard → losing friends at work
244 Working hard → gaining respect from co-workers
241 Working hard → friendliness from co-workers
246 Working hard → better treatment by co-workers

Compensation (placed in Parts 1 and 4 of core awaiting completion of compensation module)

Considering my skills and the effort I put in my work, I am satisfied with my pay.

How much pay I receive depends almost entirely on how well I perform my job.
Module 2 - (cont'd)

Compensation - (cont'd)

My pay is fair considering what other organizations in this area pay.
I am very dissatisfied with my pay.
I am very content with the way management handles pay.
My pay is fair considering what other people in this organization are paid.
Module 3

Job Facets: Importances and Contingencies (Scales and Items)

Important/Satisfied:

**Interpersonal relations**
*333/351* the way people treat you
*326/344* the respect you receive from the people you work with
322/340* the friendliness of the people you work with

**Intrinsic rewards**
*338/356* the opportunity to develop your skills and abilities
325/343* the chances you have to learn new things
330/348* the chances you have to do the things you do best
*328/346* the chances you have to accomplish something worthwhile
*332/350* the chances you have to do something that makes you feel good about yourself as a person
the chances you have to take part in making decisions
the amount of freedom you have on your job

**Extrinsic rewards**
*329/347* the amount of pay you get
*321/339* the fringe benefits you receive
*337/355* the amount of job security you have

**Work environment**
331/349* the type of physical surroundings you have on your job
335/353* the quality of equipment you work with
327/345* the resources you have to do your job

**Miscellaneous**
324/342* your chances for getting a promotion
*334/352* your chances for getting ahead in this organization
Good Performance Contingencies:

**Opportunity reward contingency**

364 you will have more freedom on your job
*359 you will have an opportunity to develop your skills and abilities
361 you will be given chances to learn new things

**Intrinsic contingency**

*358 you will feel better about yourself as a person
*363 you will get a feeling that you've accomplished something worthwhile

**Extrinsic reward contingency**

*362 you will be promoted or get a better job
*357 you will get a bonus or pay increase
*360 you will have better job security

Poor Performance Contingencies:

**Opportunity**

372 you will not be given more freedom in the future
369 you will not be given the opportunity to learn new things in the future
*367 you will not be given the opportunity to develop your skills and abilities

**Intrinsic**

*366 you will not feel good about yourself as a person
*371 you will feel badly

**Extrinsic**

*365 you won't get a bonus or a pay increase
*368 you will be among the first to be fired or laid off
*370 you won't be promoted or given a better job
Module 4

Task and Role Characteristics (Scales and Items)

Experienced Challenge:

*454 How much challenge is there on your job?

1 There is very little challenge on my job; I don't get a chance to use any special skills and abilities and I never have jobs which require all my abilities to complete them successfully.

4 Moderate challenge

7 There is a great deal of challenge on my job; I get a chance to use my special skills and abilities and often have jobs which require all my abilities to complete successfully.

*465 To be successful on my job requires all my skill and ability

*477 On my job, I seldom get a chance to use my special skills and abilities

Experienced Meaningfulness:

*461 The work I do on my job is meaningful to me

*472 I feel that most of the things I do on my job are meaningless

*464 The things I do on my job are important to me

Experienced Responsibility:

469 I don't care very much how well my work gets done

475 I feel personally responsible for the work I do on my job

478 It's important to me that I do my job well

Experienced Work Influence:

460 How much say do you have over the things you do on your job? That is, to what degree can you influence decisions about what you do on your job?

1 Very little; I have almost no influence in deciding what I do

4 Moderate influence; I have influence in some decisions, but not in others

7 High influence; I have a lot of influence in most of the decisions about what I do
Module 4 – (cont'd)

Experienced Work Influence (cont'd)

*430 I have a great deal of say over what has to be done on my job
423 My opinions are not considered in decisions which are made about my job
449 I have no control over the decisions made about my job

Experienced Autonomy

*452 How much freedom do you have on your job? That is how much do you decide on your own what you do on your job?

1 Very little; There are few decisions about my job which I can make by myself
4 A moderate amount; I have responsibility for deciding some of the things I do; but not others
7 Very much; There are many decisions about my job which I can make by myself

*471 I have the freedom to decide what I do on my job
*433 There are very few things about my job that I can decide for myself
*462 It is basically my own responsibility to decide how my job gets done

Experienced Role Conflict:

473 On my job, I can't satisfy everybody at the same time
428 People ask me to do things on my job which get in the way of my other work
432 I often have to break rules in order to get everything done on my job.
468 To satisfy some people on my job, I have to upset others

Experienced Role Clarity:

*476 Most of the time I know what I have to do on my job
   On my job I know exactly what is expected of me
*421 I can usually predict what others will expect of me on my job
*445 Most of the time, people make it clear what others expect of me
**Task Feedback:**

As you do your job, **can you tell** how well you're performing?

<table>
<thead>
<tr>
<th>1</th>
<th>4</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all; I could work on my job indefinitely without ever finding out how well I am doing unless somebody tells me.</td>
<td>Moderately; sometimes by just doing the job I can find out how well I'm performing; sometimes I can't.</td>
<td>A great deal; I can almost always tell how well I'm performing just by doing my job.</td>
</tr>
</tbody>
</table>

427 Just doing the work required by my job gives me many chances to figure out how well I am doing.

444 Even if no one tells me, I can figure out how well I am doing on my job.

**Task Interdependence:**

458 How much do you have to cooperate directly with other people in this organization in order to do your job?

<table>
<thead>
<tr>
<th>1</th>
<th>4</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little; I can do almost all my work by myself.</td>
<td>A moderate amount; some of my work requires cooperating with others.</td>
<td>Very much; all my work requires cooperating with others.</td>
</tr>
</tbody>
</table>

453 How often does your job **require** that you meet or check with other people in this organization?

<table>
<thead>
<tr>
<th>1</th>
<th>4</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all; I never have to meet or check with others.</td>
<td>I sometimes need to meet or check with others.</td>
<td>Very much; I must constantly meet or check with others.</td>
</tr>
</tbody>
</table>

442 My job is pretty much of a one person job--there is little need for checking or meeting with others.

446 I have to depend on the work performed by others in order to get the materials or information I need to do my work.

431 To do my job well, I have to work closely with other people.
Module 4 - (cont'd)

Task Uncertainty:

456 How much uncertainty is there in the job?

1 Very little; I almost always know what to expect and am never surprised by something happening unexpectedly on my job.

4 Moderate uncertainty

7 Very much; I almost never am sure what is going to happen, and unexpected things frequently happen.

438 On my job, I often have to handle surprising or unpredictable situations.

429 On my job, there are procedures for handling everything that comes up.

439 On my job, most of my tasks are clearly defined.

422 I often have to deal with new problems on my job.

470 On my job, it is hard to tell what good performance means.

Pace Control:

457 How much control do you have in setting the pace of your work?

1 Very little; pace is predetermined and I must work at a strict pace set by someone or something else.

4 Moderate control of work pace

7 Very much; I determine my own work pace.

426 My job allows me to control my own work pace.

441 I determine the speed at which I work.

Variety and Skill:

450 How much variety is there in your job?

1 Very little; I do pretty much the same things over and over, using the same equipment and procedures almost all the time.

4 Moderate variety

7 Very much; I do many things, using a variety of equipment and procedures.

440 I get to do a number of different things on my job.

447 My job requires that I do the same things over and over.
Variety and skill (cont'd)

448 My job is so simple that virtually anybody could handle it with little or no initial training

435 It takes a long time to learn the skills required to do my job well

*436 What is the level of education you feel is needed by a person in your job?

(1) Some elementary school (grades 1-7)
(2) Completed elementary school (8 grades)
(3) Some high school (9 - 11 years)
(4) Graduated from high school or G.E.D.
(5) Some college or technical training beyond high school (1 - 3 years)
(6) Graduated from college (B.A., B.S., or other bachelors degree)
(7) Some graduate school
(8) Graduate degree (Masters, Ph.D., M.D., etc.)

Experienced Role Overload:

*480 I never seem to have enough time to get everything done
*466 I have too much work to do to do everything well
*474 The amount of work I am asked to do is fair
*463 The level of performance expected of me is reasonable

Experienced Resource Adequacy:

443 I have difficulty getting the tools and supplies I need on my job
479 I have trouble getting the facts and information I need to do my job well
425 I frequently have to stop to get the things that I need on my job
Experienced Skill Adequacy:
(subtract education level from level needed for the job)

*437 I do not have enough training to do my job well

*467 I have all the skills I need in order to do my job

Task Identity:

459 How much does your job involve your producing an entire product or an entire service?

1 My job involves doing only a small part of the entire product or service; it is also worked on by others or by automatic equipment and I may not see or be aware of much of the work which is done on the product or service.

4 My job involves doing a moderate sized 'chunk' of the work; while others are involved as well, my own contribution is significant.

7 My job involves producing the entire product or service from start to finish; the final outcome of the work is clearly the results of my work.

451 How much does the work you do on your job make a visible impact on a product or service?

1 None at all; it is hard to tell what impact my work makes on the product or service.

4 A moderate amount; the impact of my job is visible along with that of others.

7 A great amount; my work is clearly visible, it makes a noticeable difference in the final product or service.

434 On my job, I produce a whole product or perform a complete service

424 I can see the results of my own work
Module 5

Work Group Functioning (Scales and Items)

Group homogeneity

521 Members of my work group vary widely in their skills and abilities.
536 My work group contains members with widely varying backgrounds.

Group goal clarity

528 My group knows exactly what things it has to get done.
543 Each member of my work group has a clear idea of the group's goals.
526 In my work group we can generally tell what has to be done next.

Group cohesiveness

*529 I feel I am really part of my work group.
*523 I have confidence and trust in my co-workers.
*533 I look forward to being with the members of my work group each day.

Group fragmentation

538 There are feelings among members of my work group which tend to pull the group apart.
548 Certain of the people I work with have no respect for one another.
527 There is constant bickering in my work group.

Open process (contains three sub-scales)

Task Process

531 My co-workers are afraid to express their real views.
*525 In my group, everyone's opinion gets listened to.
542 People who offer new ideas in my work group are likely to get clobbered.

Affect Process

*535 We tell each other the way we are feeling.
545 In my group we try to keep our personal feelings to ourselves.
Module 5 - (cont'd)

Decision Process

*534 If we have a decision to make, everyone is involved in making it.
541 Everyone has a say in decisions our group must make.

Group goal difficulty

532 My work group has goals which are difficult to achieve.
540 The things this group is expected to accomplish are unreasonable.

Rated group effectiveness

522 To what degree does your work group come up with ideas that help the organization operate more effectively.
547 We have a very productive work group.
524 My work group is known for not getting much done.
530 When we need to, my work group can make good decisions quickly.

Additional items

537 My work group often acts without planning enough.
544 I feel my work group's meetings are worthwhile.
*546 If I had a chance to do the same kind of work for the same pay in another work group, I would still stay here in this work group.
539 I'm very satisfied with the work group I'm in.
Module 6

Supervisory Behavior (Scales and Items)

Interpersonal competence

My supervisor...
624 can't stand being criticized.
662 has a hard time telling subordinates when they've done well.
628 believes feelings have no place at work.
664 looks for a subordinate to blame when things go wrong.
647 doesn't realize how he or she makes subordinates feel.
634 is someone I can trust.

Delegation and participation

My supervisor...
653 makes most decisions without asking subordinates for their opinions.
669 lets subordinates alone unless they want help.
637 leaves it up to me to decide how to go about doing my job.
656 makes important decisions without involving subordinates.
643 never gives me a chance to make important decisions on my own.
623 encourages subordinates to participate in important decisions.
630 encourages subordinates to speak up when they disagree with a decision.

Protection

My supervisor...
654 stands up for subordinates.
639 defends subordinates with "higher ups".

Goal clarity

My supervisor...
631 makes sure subordinates have clear goals to achieve.
640 makes sure subordinates know what has to be done.
644 makes it clear how I should do my job.
Work facilitation

My supervisor . . .

*657 helps me solve work related problems.
*635 keeps informed about the work which is being done.
*646 helps me discover problems before they get too bad.

Goal difficulty

My supervisor . . .

*633 demands that people give their best effort.
*663 maintains high standards of performance.
*666 insists that subordinates work hard.
*638 demands that subordinates do high quality work.

Evaluation

In general, how well do you and your supervisor communicate about your performance?

How accurately does your supervisor evaluate or judge your performance?

My supervisor . . .

658 does a good job of judging my performance.

Blanket competence

My supervisor . . .

645 is competent.

Bias

My supervisor . . .

632 is biased on the basis of race.
672 favors people who think like he or she does.
670 tends to play favorites
Module 6 - (cont'd)

\( \textbf{Bias} \) - (cont'd)

My supervisor . . .

- 661 gives some people special privileges.
- 665 picks on certain people.
- 650 is biased on the basis of sex.

**Supervisor competence -- technical**

My supervisor . . .

* 621 plans out work in advance.
* 668 knows the technical parts of his or her job extremely well.
* 651 handles the administrative parts of his or her job extremely well.

**Supervisor competence -- social**

My supervisor . . .

* 660 has the respect of subordinates.
* 626 is always fair with subordinates.
* 627 deals with subordinates well.

**Personal support**

My supervisor . . .

- 622 helps subordinates with their personal problems.
- 641 is concerned about me as a person.
- 652 feels each subordinate is important as an individual.

**Role support**

My supervisor . . .

- 629 does things to make my work life easier.
- 671 keeps informed about how subordinates think and feel about things.
- 625 keeps subordinates informed.
- 648 helps subordinates develop their skills.
Supervisory contingencies

My supervisor...

649 treats me better if I do a good job.
642 rewards me for good performance.
655 keeps poor performers from getting rewarded.
659 praises good work.
636 criticizes people who perform poorly.
Module 7
Intergroup Relations (Scales and Items)

Internal differentiation scale

727 People in other work groups really try to understand the problems and conditions we have to deal with on our jobs.
739 People in other work groups are easy to work with.
737 Different (work) groups seem to be working towards different goals.
731 If you know what work group people are in you know a lot about them.
722 People in different work groups are different "kinds" of people.

External differentiation scale

738 When things go well for my group they seem to go badly for other groups.
732 Around here if one group wins another group loses.
723 If another group gets a pay increase it is more difficult for our group to get one.
725 We can't change the way we do things without clearing it with other groups.
734 Because there isn't enough money, not all groups get what they need.

Required interdependence

721 The different work groups here don't need each other to make decisions about their work.
726 It is necessary for groups to work together to get the job done.
735 It is in my best interests for other work groups to perform well.
729 What other work groups do affects what my work group can do.

Quality of intergroup relations

*724 Some of the groups we have to deal with "won't give an inch."
730 Groups around here just don't cooperate with each other.
Quality of intergroup relations - (cont'd)

733 Different groups in this organization work together to solve common problems.

*736 In general, different groups here work well with each other.

*740 There is a lot of conflict between different groups in this organization.

*728 No matter how well we do, other groups continually criticize us.

Open end

What other groups do you have the most trouble with?

What kinds of problems do you have with them?

Outcomes - work functionality

742 Despite conflict between groups work seems to get done around here.

*746 The conflict that exists between groups gets in the way of getting the job done.

*744 Members of our group work harder because we are in competition with other groups.

Outcomes - individual affect

743 The amount of conflict that exists between groups here makes this an unpleasant place to work.

*745 There is so much conflict between groups that I often don't feel like coming to work.

748 Despite the differences between groups here, this is a pretty good place to work.

*747 Because of the problems that exist between groups I feel a lot of pressure on the job.

741 There is so much conflict with other groups around here that I frequently feel very tense.
Module 7 – (cont'd)

Organizational conflict norms

Fate mechanisms.

761 Most problems with co-workers take care of themselves if left alone.
753 When conflicts occur, people wait for them to go away.
749 When problems arise, people usually ignore them.
752 Conflicts are usually ignored when possible.

Peaceful co-existence or smoothing

751 People try at all costs to avoid offending others.
754 Employees use diplomacy and tact to settle disagreements.

Third party resolution

759 An impartial referee is usually called upon to settle disagreements.
761 When conflict arises, a neutral person makes the final decision.
756 Supervisors are generally asked to resolve conflicts between subordinates.

Confrontation and direct resolution

757 People openly discuss problems with co-workers.
760 People meet most issues head on.
755 People solve problems with others by confronting them directly.

Problem solving approach

758 When people have problems with each other they generally sit down and work them out.
750 When problems arise everybody involved works together to solve them.
Module 8

Influence Structure (Scales and Items)^1

Influence over one's own work activities

How much say you actually have in making decisions about . . .

*821 how you do your own work.
823 scheduling your work activities.
*829 changing how you do your work.
*843 how to handle problems you face in your work,
849 what you do day to day.

Influence over the allocation of personnel resources

How much say you actually have in making decisions about . . .

825 hiring people.
827 pay raises.
*835 firing people.
*841 promoting people.
*837 when people take time off.

Influence over coordination decisions

How much say you actually have in making decisions about . . .

831 what you should do when something unexpected happens.
833 how to settle disagreements.
*839 what to do if someone you depend on doesn't do their job.
*845 how work will be divided up among people.
*847 what to do if you don't get what you need to do your work.

General influence

*854 I have a lot of say over how decisions are made.
*855 I seldom have decisions forced on me.
*856 I can modify decisions made by other people.

^1 Module includes both actual and expected, core only includes actual
Module 9

Individual Differences and Outcomes (Scales and Items)

General life satisfaction

921 Boring - Interesting
922 Enjoyable - Miserable
923 Easy - Hard
924 Useless - Worthwhile
925 Friendly - Lonely
926 Full - Empty
927 Discouraging - Hopeful
928 Tied Down - Free
929 Disappointing - Rewarding
930 Brings Out The Best In Me - Doesn't Give Me Much Of A Chance
935 All in all, I am pretty happy these days.
932 In general, my life is pretty satisfying.

Work related self-esteem (plus an effort item)

951 Successful - Not Successful
960 Do Not Know My Job Well - Know My Job Well
953 Important - Not Important
958 Doing My Best - Not Doing My Best
955 Sad - Happy
956 Working My Hardest - Not Working Hard

Flexibility

954 Open - Closed
957 Risky - Cautious
959 Flexible - Rigid
952 Conservative - Liberal
Module 9 - (cont'd)

Work related depression

941 I feel down-hearted and blue.
942 I get tired for no reason.
943 I find myself restless and can't keep still.
944 I find it easy to do the things I used to do.
945 My mind is as clear as it used to be.
946 I feel hopeful about the future.
947 I find it easy to make decisions.
948 I am more irritable than usual.
949 I still enjoy the things I used to.
950 I feel that I am useful and needed.

Trust

*933 People in this organization will do things behind your back.
*937 People here feel you can't trust this company.
*939 I feel I can trust people in this company.

Change orientation

*940 I think that changes in this organization tend to work well.
*938 If we made a few changes here, this could be a much better place to work.
*931 Changes here always seem to create more problems than they solve.
*936 It's really not possible to change things around here.
*934 When changes are made in this organization, the employees usually lose out in the end.
This questionnaire is being used to obtain data about the place you work as a human organization. The results of this study will be used to help employees and managers within this organization learn about the current perceptions and feelings of people here. If it is to be useful, it is important that you answer each question frankly and honestly. This is not a test and there are no right or wrong answers.

Some of the questions are objective, asking you to agree or disagree with a description of things here in this organization. Others ask you for your views and opinions.

You will notice that some of the same questions are asked several different ways. This is not meant to trick you. We do this to test how well our different questions measure the same ideas. All we ask of you is that you answer each question as carefully and frankly as possible.

Your answers are completely confidential. No one in this organization will ever have access to information from the survey about any individual or about his or her answers. All questionnaires will be taken to the Institute for Social Research in Michigan for analysis and safekeeping. Only statistical summaries for groups or sets of people will be reported.

To help insure your privacy, we prefer not to have your name or any easily identifiable information on your questionnaire. At the same time, we need to match your questionnaire with another you may fill out in the future and with information obtained from other sources (such as personnel and payroll records). To meet these two conditions, we provide a special identification number assigned by our research staff for each employee. This will be used only for matching information from different sources and times, not for any other purpose. The codes and names will be kept in our confidential files.

Your number is on a sticker attached to the following page. Although you can remove the identification sticker, we hope you will help us by leaving it attached.

Thank you in advance for your cooperation. We hope that you will find this questionnaire interesting and thought provoking.
GENERAL INSTRUCTIONS

Most of the questions ask that you check one of several numbers that appear on a scale to the right of the item. You are to choose the one number that best matches the description of how you feel about the item. For example, if you were asked how much you agree with the statement, "I enjoy the weather in this town," and you feel that you agree, you would check the number under "agree" like this:


Note that the scale descriptions may be different in different parts of the questionnaire. For example, they may ask not whether you agree or disagree, but perhaps whether you are satisfied or dissatisfied, or whether you think something to be likely or not likely to happen, etc.

So, be sure to read the special instructions that appear in boxes on each page. Be sure to read the scale descriptions before choosing your answers.

When you have finished, please place the questionnaire in the envelope, remove your name from the outside, and return the envelope to the designated place or person.

* * * * * * * *

This is your Michigan identification number:

These codes are for Michigan use only:

Deck:
9999:
Label:

GO RIGHT ON TO PART 1, next page
The following information is needed to help us with the statistical analyses of the data. This information will allow comparisons among different groups of employees and comparisons with similar employees in other organizations.

All of your responses are strictly confidential; individual responses will not be seen by anyone within this organization. We appreciate your help in providing this important information.

1. Are you - (check one)
   [1] Female

2. What is your educational level? (indicate highest completed)
   [1] Some elementary school (grades 1 - 7)
   [2] Completed elementary school (8 grades)
   [3] Some high school (9 - 11 years)
   [4] Graduated from high school or G.E.D.
   [5] Some college or technical training beyond high school (1 - 3 years)
   [6] Graduated from college (B.A., B.S., or other bachelors degree)
   [7] Some graduate school
   [8] Graduate degree (Masters, Ph.D., M.D., etc.)

3. Are you married?
   [1] Yes
   [2] No

4. In what year did you first come to work for this organization? (for example, if you started in 1972 you would answer 1972)
   19__

5. Is your income the primary source of financial support for your immediate family?
   [1] Yes
   [2] No

6. How long have you been in your present job in this organization (even though your pay may have changed)?
   [1] Less than 30 days
   [2] 1 - 3 months
   [3] 4 - 11 months
   [4] 1 - 3 years
   [5] More than 3 years

7. Are you -
   [1] Black
   [4] Spanish surnamed
   [6] None of the above
8. About how many hours do you usually work per week?  
   ____ hours

9. What was the size of the community in which you spent the largest portion of your life up to the time you were sixteen years old?  
   [1] On a farm or ranch  
   [2] In a rural area, not on a farm or ranch  
   [3] A suburban town near a city  
   [4] A small city (less than 100,000 people)  
   [5] A large city (more than 100,000 people)

10. How old were you on your last birthday?  
    ____ years

11. How many dependents do you have (others who depend on your income for their financial support)?  
    ____ dependents
PART 2

The next questions are about you and your job. When answering keep in mind the kind of work you do and the experiences you have had working here. Follow the directions given in the boxes at the beginning of each set of questions.

12. HERE ARE SOME STATEMENTS ABOUT YOU AND YOUR JOB. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. If I had the chance, I would take a different job within this organization.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>i. I am very content with the way management handles pay.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>m. My pay is fair considering what other people in this organization are paid.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
</tbody>
</table>

13. PLEASE ANSWER THE FOLLOWING QUESTIONS.

a. In general, do you do quite large quantities of work?


No, I don't do a very large amount of work

Yes, I do a very large amount of work
14. BELOW YOU WILL SEE A NUMBER OF PAIRS OF FACTORS THAT LOOK LIKE THIS:


YOU ARE TO INDICATE BY CHECKING THE appropriate number to the right of each pair how often it is true for you personally that the first factor leads to the second on your job. Remember, for each pair, indicate how often it is true by checking the box under the response which seems most accurate.

<table>
<thead>
<tr>
<th>Pair Description</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working hard → high productivity</td>
<td>Never</td>
</tr>
<tr>
<td>Working hard → doing my job well</td>
<td>Never</td>
</tr>
<tr>
<td>Working hard → good job performance</td>
<td>Never</td>
</tr>
</tbody>
</table>
So far you have been asked questions about your job. This next section asks how you think and feel about certain specific parts of your work.

### 15. DIFFERENT PEOPLE WANT DIFFERENT THINGS FROM THEIR WORK. HERE IS A LIST OF THINGS A PERSON COULD HAVE ON HIS OR HER JOB. **HOW IMPORTANT IS EACH OF THE FOLLOWING TO YOU?**

<table>
<thead>
<tr>
<th>How Important Is</th>
<th>Moderately Important or Less</th>
<th>Quite Important</th>
<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. the friendliness of the people you work with.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. the respect you receive from the people you work with.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. the chances you have to accomplish something worthwhile.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. the amount of pay you get.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. the chances you have to do something that makes you feel good about yourself as a person.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. the way you are treated by the people you work with.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. your chances for getting ahead in this organization.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. the amount of job security you have.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. the opportunity to develop your skills and abilities.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. IN THE QUESTION YOU JUST ANSWERED YOU RATED THE IMPORTANCE OF DIFFERENT ASPECTS OF YOUR WORK.

HERE YOU ARE BEING ASKED SOMETHING DIFFERENT. IN THIS QUESTION, PLEASE INDICATE HOW SATISFIED YOU ARE WITH EACH OF THE FOLLOWING ASPECTS OF YOUR JOB.

HOW SATISFIED ARE YOU WITH . . .

<table>
<thead>
<tr>
<th>a.</th>
<th>the fringe benefits you receive.</th>
<th>b.</th>
<th>the friendliness of the people you work with.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c.</th>
<th>the respect you receive from the people you work with.</th>
<th>d.</th>
<th>the chances you have to accomplish something worthwhile.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>e.</th>
<th>the amount of pay you get.</th>
<th>f.</th>
<th>the chances you have to do something that makes you feel good about yourself as a person.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>g.</th>
<th>the way you are treated by the people you work with.</th>
<th>h.</th>
<th>your chances for getting ahead in this organization.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>i.</th>
<th>the amount of job security you have.</th>
<th>j.</th>
<th>the opportunity to develop your skills and abilities.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>

17. HERE ARE SOME THINGS THAT COULD HAPPEN TO PEOPLE WHEN THEY DO THEIR JOBS ESPECIALLY WELL. HOW LIKELY IS IT THAT EACH OF THESE THINGS WOULD HAPPEN IF YOU PERFORMED YOUR JOB ESPECIALLY WELL?

<table>
<thead>
<tr>
<th>a.</th>
<th>You will get a bonus or pay increase.</th>
<th>b.</th>
<th>You will feel better about yourself as a person.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[1] Not At All Likely</td>
<td></td>
<td>[1] Not At All Likely</td>
</tr>
<tr>
<td></td>
<td>[5]</td>
<td></td>
<td>[5]</td>
</tr>
<tr>
<td></td>
<td>[6]</td>
<td></td>
<td>[6]</td>
</tr>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c.</th>
<th>You will have an opportunity to develop your skills and abilities.</th>
<th>d.</th>
<th>You will have better job security.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[1] Not At All Likely</td>
<td></td>
<td>[1] Not At All Likely</td>
</tr>
<tr>
<td></td>
<td>[5]</td>
<td></td>
<td>[5]</td>
</tr>
<tr>
<td></td>
<td>[6]</td>
<td></td>
<td>[6]</td>
</tr>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>e.</th>
<th>You will be promoted or get a better job.</th>
<th>f.</th>
<th>You will get a feeling that you've accomplished something worthwhile.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[1] Not At All Likely</td>
<td></td>
<td>[1] Not At All Likely</td>
</tr>
<tr>
<td></td>
<td>[5]</td>
<td></td>
<td>[5]</td>
</tr>
<tr>
<td></td>
<td>[6]</td>
<td></td>
<td>[6]</td>
</tr>
<tr>
<td></td>
<td>[7]</td>
<td></td>
<td>[7]</td>
</tr>
</tbody>
</table>
18. HERE ARE SOME THINGS THAT COULD HAPPEN TO PEOPLE WHEN THEY DO THEIR JOBS ESPECIALLY POORLY. HOW LIKELY IS IT THAT EACH OF THESE THINGS WOULD HAPPEN IF YOU PERFORMED YOUR JOB ESPECIALLY POORLY?

c. You will not be given the opportunity to develop your skills and abilities. ........................................... [1] [2] [3] [4] [5] [6] [7]
d. You will be among the first to be fired or laid off. ................................................................. [1] [2] [3] [4] [5] [6] [7]
e. You won't be promoted or given a better job. ......... [1] [2] [3] [4] [5] [6] [7]
PART 4

The next questions are about you and your job. When answering, please keep in mind the kind of work you do and the experiences you have had working here. Follow the directions given in the boxes at the beginning of each set of questions.

19. HERE ARE SOME STATEMENTS ABOUT JOBS. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Slightly Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. The things I do on my job are important to me.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. To be successful on my job requires all my skill and ability.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. There are very few things about my job that I can decide for myself.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. I never seem to have enough time to get everything done.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. I have all the skills I need in order to do my job.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Most of the time, people make it clear what they expect of me.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. The work I do on my job is meaningful to me.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. I can usually predict what others will expect of me on my job.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
AGREE OR DISAGREE...

o. I have the freedom to decide what I do on my job. .........................................................

p. I do not have enough training to do my job well. ..............................................................

q. The amount of work I am asked to do is fair. .......

r. It is basically my own responsibility to decide how my job gets done. .............................

s. Considering my skills and the effort I put into my work, I am very satisfied with my pay. .......

t. I feel that most of the things I do on my job are meaningless. ...........................................


20. How much challenge is there on your job?


There is very little challenge on my job; I don't get a chance to use any special skills and abilities and I never have jobs which require all my abilities to complete them successfully.

Moderate challenge

There is a great deal of challenge on my job; I get a chance to use my special skills and abilities and often have jobs which require all my abilities to complete successfully.

21. How much freedom do you have on your job? That is, how much do you decide on your own what you do on your job?


Very little; there are few decisions about my job which I can make by myself.

A moderate amount; I have responsibility for deciding some of the things I do, but not others.

Very much; there are many decisions about my job which I can make by myself.
22. What is the level of education you feel is needed by a person in your job?

[1] Some elementary school (grades 1 - 7)
[2] Completed elementary school (8 grades)
[3] Some high school (9 - 11 years)
[4] Graduated from high school or G.E.D.
[5] Some college or technical training beyond high school (1 - 3 years)
[6] Graduated from college (B.A., B.S., or other bachelors degree)
[7] Some graduate school
[8] Graduate degree (Masters, Ph.D, M.D., etc.)
PART 5

This part is concerned with work groups in this organization. For this part of the questionnaire please think of your “work group” as the set of people with whom you work most closely on a day-to-day basis.

If you are a member of only one work group, questions are easy to answer. If you are a member of two or more different groups, you will need to decide which one group to think about when answering the questions.

Keep in mind this same one work group for all of this part of the questionnaire.

23. THE FOLLOWING ARE STATEMENTS THAT MAY OR MAY NOT DESCRIBE YOUR WORK GROUP. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Some of the people I work with have no respect for others.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. I look forward to being with the members of my work group each day.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. We tell each other the way we are feeling.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. I have confidence and trust in my co-workers.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. If we have a decision to make, everyone is involved in making it.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. There are feelings among members of my work group which tend to pull the group apart.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. If I had a chance to do the same kind of work for the same pay in another work group, I would still stay here in this work group.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
24. THE QUESTIONS YOU JUST ANSWERED ASKED ABOUT YOUR WORK GROUP — THE PEOPLE YOU WORK WITH. THE NEXT SET OF QUESTIONS ASK ABOUT OTHER WORK GROUPS AND HOW YOUR WORK GROUP AND OTHER GROUPS GET ALONG.

HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT AS A DESCRIPTION OF HOW DIFFERENT GROUPS GET ALONG HERE?

a. No matter how well we do, other groups always criticize us. ..............................................................

b. Despite the differences between groups here, this is a pretty good place to work. ........................................

c. There is a lot of conflict between different groups in this organization. .................................................

d. Members of our group work harder because we are in competition with other groups. ........................

e. In general, different groups here work well with each other. ...........................................................

f. Conflict that exists between groups gets in the way of getting the job done. ........................................

g. Because of the problems that exist between groups, I feel a lot of pressure on the job. ...........................

h. Some of the groups we have to deal with "won't give an inch." ............................................................

i. There is so much conflict between groups that I often don't feel like coming to work. ........................
PART 6

This part asks about your immediate supervisor in this organization. Your supervisor is the individual that you report to directly. He or she may also evaluate your work, give you assignments, etc.

25. THE FOLLOWING STATEMENTS DESCRIBE THE WAY A SUPERVISOR MIGHT PERFORM HIS OR HER JOB. PLEASE INDICATE WHETHER YOU AGREE WITH EACH OF THE STATEMENTS AS DESCRIPTIONS OF YOUR DIRECT SUPERVISOR.

MY SUPERVISOR...

a. ...insists that subordinates work hard. ...........................................[1] [2] [3] [4] [5] [6] [7]
b. ...helps me discover problems before they get too bad. ...........................................[1] [2] [3] [4] [5] [6] [7]
c. ...handles the administrative parts of his or her job extremely well. ...........................................[1] [2] [3] [4] [5] [6] [7]
d. ...is always fair with subordinates. ...........................................[1] [2] [3] [4] [5] [6] [7]
e. ...maintains high standards of performance. ...........................................[1] [2] [3] [4] [5] [6] [7]
f. ...helps me solve work related problems. ...........................................[1] [2] [3] [4] [5] [6] [7]

MY SUPERVISOR...

g. ...knows the technical parts of his or her job extremely well. ...........................................[1] [2] [3] [4] [5] [6] [7]
h. ...demands that subordinates do high quality work. ...........................................[1] [2] [3] [4] [5] [6] [7]
i. ...has the respect of subordinates. ...........................................[1] [2] [3] [4] [5] [6] [7]
j. ...plans out work in advance. ...........................................[1] [2] [3] [4] [5] [6] [7]
k. ...demands that people give their best effort. ...........................................[1] [2] [3] [4] [5] [6] [7]
l. ...deals with subordinates well. ...........................................[1] [2] [3] [4] [5] [6] [7]
m. ...keeps informed about the work which is being done. ...........................................[1] [2] [3] [4] [5] [6] [7]
This section asks about how decisions are made in this organization. It is also concerned with how much influence you have over decisions that are made here.

As in other parts, read the directions in the boxes and answer the questions by checking the numbers.

26. **HERE IS A LIST OF DECISIONS WHICH GET MADE AT WORK. FOR EACH OF THE FOLLOWING DECISIONS, PLEASE INDICATE HOW MUCH SAY YOU ACTUALLY HAVE IN MAKING THESE DECISIONS.**

<table>
<thead>
<tr>
<th>Decision</th>
<th>No Say At All</th>
<th>Some Say</th>
<th>A Good Deal of Say</th>
<th>A Very Great Deal of Say</th>
</tr>
</thead>
<tbody>
<tr>
<td>g. What to do if you don't get what you need to do your work.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

27. **HOW MUCH DO YOU AGREE OR DISAGREE WITH THE FOLLOWING GENERAL STATEMENTS?**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. I seldom have decisions forced on me.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. I have a lot of say over how decisions are made.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In this section of the questionnaire, we ask about some things you believe, the way you feel about yourself, and your feelings about life in general.

Research has shown that the way people feel about such matters is related to their work experiences and how they respond to different characteristics of organizations.

People differ in the way they feel about things so, of course, there are no "best" or "right" answers. What we want is a true reflection of the way you feel, so please respond to each statement as accurately as possible.

28. **HOW MUCH DO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS?**

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Changes here always seem to create more problems than they solve.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. In general, my life is pretty satisfying.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. People in this organization will do things behind your back.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. When changes are made in this organization, the employees usually lose out in the end.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. All in all, I am pretty happy these days.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. It's really not possible to change things around here.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. People here feel you can't trust this organization.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. If we made a few changes here, this could be a much better place to work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. I feel I can trust people in this company.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. I think that changes in this organization tend to work well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THIS COMPLETES THE QUESTIONNAIRE. COULD YOU PLEASE ANSWER THESE FINAL THREE QUESTIONS?

29. What did you think about the length of this questionnaire?

[1] Much too long
[2] Somewhat too long
[3] Just about right
[4] Somewhat too short

30. How seriously did you answer the questions?

[1] Not at all seriously
[2] A little seriously
[3] Somewhat seriously
[4] Quite seriously
[5] Very seriously

31. How much did you enjoy taking this questionnaire?

[1] Not at all pleasant, enjoyable or fun
[2] A little enjoyable
[3] Somewhat enjoyable
[4] Quite enjoyable
[5] Extremely pleasant, enjoyable and fun

We appreciate your cooperation in spending the time to answer our questions. If you have any comments on this study or other issues here in this organization, please feel free to use the space below for that purpose.

Once again, thank you.

COMMENTS:
MICHIGAN ASSESSMENT OF ORGANIZATIONS II

QUESTIONNAIRE MODULES

Module 1 - Demographics
Module 2 - General attitudes
Module 3 - Job facets: importances & contingencies
Module 4 - Task and role characteristics
Module 5 - Work group functioning
Module 6 - Supervisory behavior
Module 7 - Intergroup relations
Module 8 - Influence structure
Module 9 - Individual differences and outcomes
MODULE 1 — DEMOGRAPHICS

The following information is needed to help us with the statistical analyses of the data. This information will allow comparisons among different groups of employees and comparisons with similar employees in other organizations.

All of your responses are strictly confidential; individual responses will not be seen by anyone within this organization. We appreciate your help in providing this important information.

1. Are you - (check one) 01:21
   [1] Female

2. What is your educational level? 01:22
   (indicate highest completed)
   [1] Some elementary school (grades 1 - 7)
   [2] Completed elementary school (8 grades)
   [3] Some high school (9 - 11 years)
   [4] Graduated from high school or G.E.D.
   [5] Some college or technical training beyond high school (1 - 3 years)
   [6] Graduated from college (B.A., B.S., or other bachelors degree)
   [7] Some graduate school
   [8] Graduate degree (Masters, Ph.D, M.D., etc.)

3. Are you married? 01:23
   [1] Yes
   [2] No

4. In what year did you first come to work for this organization? (for example, if you started in 1972 you would answer 1972) 01:24:27
   19

5. Is your income the primary source of financial support for your immediate family? 01:28
   [1] Yes
   [2] No

6. How long have you been in your present job in this organization (even though your pay may have changed)? 01:29
   [1] Less than 30 days
   [2] 1 - 3 months
   [3] 4 - 11 months
   [4] 1 - 3 years
   [5] More than 3 years

7. Are you - 01:30
   [1] Black
   [4] Spanish surnamed
   [6] None of the above
8. About how many hours do you usually work per week?  
   ____ hours

9. What was the size of the community in which you spent the largest portion of your life up to the time you were sixteen years old?  
   [1] On a farm or ranch  
   [2] In a rural area, not on a farm or ranch  
   [3] A suburban town near a city  
   [4] A small city (less than 100,000 people)  
   [5] A large city (more than 100,000 people)

10. How old were you on your last birthday?  
    ____ years

11. How many dependents do you have (others who depend on your income for their financial support)?  
    ____ dependents
The next questions are about you and your job. When answering keep in mind the kind of work you do and the experiences you have had working here. Follow the directions given in the boxes at the beginning of each set of questions.

1. HERE ARE SOME STATEMENTS ABOUT YOU AND YOUR JOB. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. If I had the chance, I would take a different job within this organization.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>02:23</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. What happens to this organization is really important to me.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>02:26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. I don't care what happens to this organization as long as I get my pay check.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>02:29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. PLEASE ANSWER THE FOLLOWING QUESTIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In general, do you do quite large quantities of work?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>02:33</td>
</tr>
</tbody>
</table>

No, I don't do a very large amount of work

Yes, I do a very large amount of work
PLEASE ANSWER THE FOLLOWING QUESTIONS . . .

b. In general, do you do quite high quality work?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

No, I generally don't do very high quality work

Yes, I generally do very high quality work

02:34

c. How likely is it that you could find a job with another employer with about the same pay and benefits you now have?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

02:35

d. How likely is it that you will actively look for a new job in the next year?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

02:36

e. How likely is it that you might be fired or laid off?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

02:37

f. During the coming months, how hard do you plan to work? How much effort do you intend to put into doing your job?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

02:38
3. BELOW YOU WILL SEE A NUMBER OF PAIRS OF FACTORS THAT LOOK LIKE THIS:

Warm weather \rightarrow Sweating

YOU ARE TO INDICATE BY CHECKING THE APPROPRIATE NUMBER TO THE RIGHT OF EACH PAIR HOW OFTEN IT IS TRUE FOR YOU PERSONALLY THAT THE FIRST FACTOR LEADS TO THE SECOND ON YOUR JOB. REMEMBER, FOR EACH PAIR, INDICATE HOW OFTEN IT IS TRUE BY CHECKING THE BOX UNDER THE RESPONSE WHICH SEEMS MOST ACCURATE.

MODULE 3 — JOB FACETS: IMPORTANCES AND CONTINGENCIES

So far you have been asked questions about your job. This next section asks how you think and feel about certain specific parts of your work.

1. DIFFERENT PEOPLE WANT DIFFERENT THINGS FROM THEIR WORK. HERE IS A LIST OF THINGS A PERSON COULD HAVE ON HIS OR HER JOB. HOW IMPORTANT IS EACH OF THE FOLLOWING TO YOU?

HOW IMPORTANT IS . . .

<table>
<thead>
<tr>
<th>Item</th>
<th>Moderately Important</th>
<th>Quite Important</th>
<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. the friendliness of the people you work with.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. the amount of freedom you have on your job.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. the chances you have to learn new things.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. the respect you receive from the people you work with.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. the resources you have to do your job.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. the chances you have to accomplish something worthwhile.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. the amount of pay you get.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. the chances you have to do the things you do best.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. the type of physical surroundings you have on your job.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. the chances you have to do something that makes you feel good about yourself as a person.</td>
<td>[3] [4] [5] [6] [7] [8] [9]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HOW IMPORTANT IS . . .

m. . . . the way you are treated by the people you work with. ......................................................... [3] [4] [5] [6] [7] [8] [9] 03:33
p. . . . the chances you have to take part in making decisions. .............................................................. [3] [4] [5] [6] [7] [8] [9] 03:36
q. . . . the amount of job security you have. ................. [3] [4] [5] [6] [7] [8] [9] 03:37
r. . . . the opportunity to develop your skills and abilities. ................................................................. [3] [4] [5] [6] [7] [8] [9] 03:38

2. IN THE QUESTION YOU JUST ANSWERED YOU RATED THE IMPORTANCE OF DIFFERENT ASPECTS OF YOUR WORK.

HERE YOU ARE BEING ASKED SOMETHING DIFFERENT. IN THIS QUESTION, PLEASE INDICATE HOW SATISFIED YOU ARE WITH EACH OF THE FOLLOWING ASPECTS OF YOUR JOB.

HOW SATISFIED ARE YOU WITH . . .

c. . . . the amount of freedom you have on your job. ................................................................. [1] [2] [3] [4] [5] [6] [7] 3:41
e. . . . the chances you have to learn new things. ...... [1] [2] [3] [4] [5] [6] [7] 3:43

HOW SATISFIED ARE YOU WITH . . .

g. . . . the resources you have to do your job. ................. [1] [2] [3] [4] [5] [6] [7] 3:45
h. . . . the chances you have to accomplish something worthwhile. .................................................. [1] [2] [3] [4] [5] [6] [7] 3:46
j. . . . the chances you have to do the things you do best. ................................................................. [1] [2] [3] [4] [5] [6] [7] 3:48
HOW SATISFIED ARE YOU WITH . . .

k. . . . the type of physical surroundings you have on your job. ..............................................................

l. . . . the chances you have to do something that makes you feel good about yourself as a person. ..............................................................

m. . . . the way you are treated by the people you work with. ..............................................................

n. . . . your chances for getting ahead in this organization. ..............................................................

o. . . . the quality of the equipment you work with. ..............................................................

p. . . . the chances you have to take part in making decisions. ..............................................................

q. . . . the amount of job security you have. ............... 

r. . . . the opportunity to develop your skills and abilities. ..............................................................

3. HERE ARE SOME THINGS THAT COULD HAPPEN TO PEOPLE WHEN THEY DO THEIR JOBS ESPECIALLY WELL. HOW LIKELY IS IT THAT EACH OF THESE THINGS WOULD HAPPEN IF YOU PERFORMED YOUR JOB ESPECIALLY WELL?

a. You will get a bonus or pay increase. ................... 

b. You will feel better about yourself as a person. .......... 

c. You will have an opportunity to develop your skills and abilities. ...........

d. You will have better job security. .......................

e. You will be given chances to learn new things. ........

f. You will be promoted or get a better job. ..............

g. You will get a feeling that you've accomplished something worthwhile. ...................

h. You will have more freedom on your job. .............
4. Here are some things that could happen to people when they do their jobs especially poorly. How likely is it that each of these things would happen if you performed your job especially poorly?

<table>
<thead>
<tr>
<th></th>
<th>Not At All Likely</th>
<th>Somewhat Likely</th>
<th>Quite Likely</th>
<th>Extremely Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. You will be among the first to be fired or laid off.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>3:68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The next questions are about you and your job. When answering, please keep in mind the kind of work you do and the experiences you have had working here. Follow the directions given in the boxes at the beginning of each set of questions.

1. Here are some statements which describe jobs. How much do you agree or disagree with each statement as a description of your job?

   e. I frequently have to stop to get the things that I need on my job. ............................. [1] [2] [3] [4] [5] [6] [7] 4:25
   g. Just doing the work required by my job gives me many chances to figure out how well I am doing. .......................................................... [1] [2] [3] [4] [5] [6] [7] 4:27
   j. I have a great deal of say over what has to be done on my job. ................................ [1] [2] [3] [4] [5] [6] [7] 4:30
   k. To do my job well, I have to work closely with other people. ................................ [1] [2] [3] [4] [5] [6] [7] 4:31
   m. There are very few things about my job that I can decide for myself. ........................ [1] [2] [3] [4] [5] [6] [7] 4:33
   o. It takes a long time to learn the skills required to do my job well. .......................... [1] [2] [3] [4] [5] [6] [7] 4:35
2. What is the level of education you feel is needed by a person in your job?

   [1] Some elementary school (grades 1 - 7)
   [2] Completed elementary school (8 grades)
   [3] Some high school (9 - 11 years)
   [4] Graduated from high school or G.E.D.
   [5] Some college or technical training beyond high school (1 - 3 years)
   [6] Graduated from college (B.A., B.S., or other bachelor's degree)
   [7] Some graduate school
   [8] Graduate degree (Masters, Ph.D., M.D., etc.)

3. Here are some statements which describe jobs. How much do you agree or disagree with each statement as a description of your job?

   a. I do not have enough training to do my job well. ............................................................
   b. On my job, I often have to handle surprising or unpredictable situations. ....................... [1] [2] [3] [4] [5] [6] [7]
   d. I get to do a number of different things on my job. .......................................................... [1] [2] [3] [4] [5] [6] [7]
   e. I determine the speed at which I work. ................................................................. [1] [2] [3] [4] [5] [6] [7]
   f. My job is pretty much of a one person job--there is little need for checking or meeting with others. ............................................................ [1] [2] [3] [4] [5] [6] [7]
   g. I have difficulty getting the tools and supplies I need on my job. ........................................ [1] [2] [3] [4] [5] [6] [7]
   h. Even if no one tells me, I can figure out how well I am doing on my job. ......................... [1] [2] [3] [4] [5] [6] [7]
YOUR JOB – AGREE OR DISAGREE . . .

i. Most of the time, people make it clear what they expect of me. ................................................................. [1] [2] [3] [4] [5] [6] [7] 4:45

j. I have to depend on the work performed by others in order to get the materials or information I need to do my work. ................................................................. [1] [2] [3] [4] [5] [6] [7] 4:46

k. My job requires that I do the same things over and over. ........................................................................... 4:47

l. My job is so simple that virtually anybody could handle it with little or no initial training. .................. 4:48

m. I have no control over the decisions made about my job. ........................................................................... 4:49

The next questions ask you to describe the JOB ON WHICH YOU WORK. Please do not try to show how much you like or dislike your job; just try to be as accurate and factually correct as possible.

First, read the descriptions at each end of the scale, under [1] and [7]. Then check one of these boxes – or one in between – that best describes what your job is like.

4. How much variety is there in your job?


Very little; I do pretty much the same things over and over, using the same equipment and procedures almost all the time.

Moderate variety

Very much; I do many things, using a variety of equipment and procedures.

5. How much does the work you do on your job make a visible impact on a product or service?


None at all; it is hard to tell what impact my work makes on the product or service.

A moderate amount; the impact of my job is visible along with that of others.

A great amount; my work is clearly visible, it makes a noticeable difference in the final product or service.
6. How much freedom do you have on your job? That is, how much do you decide on your own what you do on your job?

Very little; there are few decisions about my job which I can make by myself
A moderate amount; I have responsibility for deciding some of the things I do, but not others
Very much; there are many decisions about my job which I can make by myself

7. How often does your job require that you meet or check with other people in this organization?

Not at all; I never have to meet or check with others
I sometimes need to meet or check with others
Very often; I must constantly meet or check with others

8. How much challenge is there on your job?

There is very little challenge on my job; I don't get a chance to use any special skills and abilities and I never have jobs which require all my abilities to complete them successfully
Moderate challenge
There is a great deal of challenge on my job; I get a chance to use my special skills and abilities and often have jobs which require all my abilities to complete successfully.

9. As you do your job, can you tell how well you're performing?

Not at all; I could work on my job indefinitely without ever finding out how well I am doing unless somebody tells me
Moderately; sometimes by just doing the job I can find out how well I'm performing, sometimes I can't
A great deal; I can almost always tell how well I'm performing just by doing my job
10. How much **uncertainty** is there in your job?  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little; I almost always know what to expect and am never surprised by something happening unexpectedly on my job</td>
<td>Moderate uncertainty</td>
<td>A great deal; I almost never am sure what is going to happen, and unexpected things frequently happen</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. How much control do you have in setting the pace of your work?  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little; pace is predetermined and I must work at a strict pace set by someone or something else</td>
<td>Moderate control of work pace</td>
<td>A great deal; I determine my own work pace</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. How much do you have to **cooperate** directly with other people in this organization in order to do your job?  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little; I can do almost all my work by myself</td>
<td>A moderate amount; some of my work requires cooperating with others</td>
<td>Very much; all my work requires cooperating with others</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. How much does your job involve your producing an **entire** product or an **entire** service?  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>My job involves doing only a small part of the entire product or service; it is also worked on by others or by automatic equipment and I may not see or be aware of much of the work which is done on the product or service</td>
<td>My job involves doing a moderate sized 'chunk' of work; while others are involved as well, my own contribution is significant</td>
<td>My job involves producing the entire product or service from start to finish, the final outcome of the work is clearly the results of my work</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14. How much say do you have over the things you do on your job? That is, to what degree can you influence decisions about what you do on your job?

Very little; I have almost no influence in deciding what I do
Moderate influence; I have influence in some decisions but not in others
A great deal; I have a lot of influence in most of the decisions about what I do

15. THE FOLLOWING STATEMENTS DESCRIBE HOW YOU MIGHT FEEL ABOUT YOUR JOB. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

a. The work I do on my job is meaningful to me. ................................................................. [1] [2] [3] [4] [5] [6] [7]

b. It is basically my own responsibility to decide how my job gets done. ................................................................. [1] [2] [3] [4] [5] [6] [7]


d. The things I do on my job are important to me. ................................................................. [1] [2] [3] [4] [5] [6] [7]

e. To be successful on my job requires all my skill and ability. ................................................................. [1] [2] [3] [4] [5] [6] [7]


g. I have all the skills I need in order to do my job. ................................................................. [1] [2] [3] [4] [5] [6] [7]

HOW YOU FEEL ABOUT YOUR JOB – AGREE OR DISAGREE . . .

h. To satisfy some people on my job, I have to upset others. ................................................................. [1] [2] [3] [4] [5] [6] [7]

i. I don't care very much how well my work gets done. ................................................................. [1] [2] [3] [4] [5] [6] [7]


k. I have the freedom to decide what I do on my job. ................................................................. [1] [2] [3] [4] [5] [6] [7]

l. I feel that most of the things I do on my job are meaningless. ................................................................. [1] [2] [3] [4] [5] [6] [7]

m. On my job, I can't satisfy everybody at the same time. ................................................................. [1] [2] [3] [4] [5] [6] [7]

n. The amount of work I am asked to do is fair. ................................................................. [1] [2] [3] [4] [5] [6] [7]
HOW YOU FEEL ABOUT YOUR JOB —

AGREE OR DISAGREE . . .

<table>
<thead>
<tr>
<th></th>
<th>How You Feel About Your Job</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>r.</td>
<td>It’s important to me that I do my job well.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
</tbody>
</table>
This part is concerned with work groups in this organization. For this questionnaire please think of your "work group" as the set of people with whom you work most closely on a day-to-day basis.

If you are a member of only one work group, questions are easy to answer. If you are a member of two or more different groups, you will need to decide which one group to think about when answering the questions.

For this part of the questionnaire, keep this one work group in mind.

1. THE FOLLOWING ARE STATEMENTS THAT MAY OR MAY NOT DESCRIBE YOUR WORK GROUP. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

   a. Members of my work group vary widely in their skills and abilities.
   b. My work group comes up with ideas that help the organization operate more effectively.
   c. I have confidence and trust in my co-workers.
   d. My work group is known for not getting much done.
   e. In my group, everyone’s opinion gets listened to.
   f. In my work group we can generally tell what has to be done next.
   g. There is constant bickering in my work group.
   h. My group knows exactly what things it has to get done.
   i. I feel I am really part of my work group.
   j. When we need to, my work group can make good decisions quickly.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

2. THE FOLLOWING ARE STATEMENTS THAT MAY OR MAY NOT DESCRIBE YOUR WORK GROUP. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?


b. My work group has goals which are difficult to achieve. .......................................................... [1] [2] [3] [4] [5] [6] [7] 5:32

c. I look forward to being with the members of my work group each day. ...................................... [1] [2] [3] [4] [5] [6] [7] 5:33

d. If we have a decision to make, everyone is involved in making it. ............................................. [1] [2] [3] [4] [5] [6] [7] 5:34

e. We tell each other the way we are feeling. ................. [1] [2] [3] [4] [5] [6] [7] 5:35


h. There are feelings among members of my work group which tend to pull the group apart. .......... [1] [2] [3] [4] [5] [6] [7] 5:38

i. I'm very satisfied with the work group I'm in. ........ [1] [2] [3] [4] [5] [6] [7] 5:39

3. SOME FINAL QUESTIONS ABOUT YOUR WORK GROUP.

a. The things this group is expected to accomplish are unreasonable. ............................................. [1] [2] [3] [4] [5] [6] [7] 5:40


g. If I had a chance to do the same kind of work for the same pay in another work group, I would still stay here in this work group. ........... [1] [2] [3] [4] [5] [6] [7] 5:46

h. We have a very productive work group. ....................... [1] [2] [3] [4] [5] [6] [7] 5:47

i. Some of the people I work with have no respect for others. ....................................................... [1] [2] [3] [4] [5] [6] [7] 5:48
This part asks about your immediate supervisor in this organization. Your supervisor is the individual that you report to directly. He or she may also evaluate your work, give you assignments, etc.

1. THE FOLLOWING STATEMENTS DESCRIBE THE WAY A SUPERVISOR MIGHT PERFORM HIS OR HER JOB. PLEASE INDICATE WHETHER YOU AGREE WITH EACH OF THE STATEMENTS AS DESCRIPTIONS OF YOUR DIRECT SUPERVISOR.

MY SUPERVISOR . . .


MY SUPERVISOR . . .
MY SUPERVISOR...

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>q.</td>
<td>. . . leaves it up to me to decide how to go about doing my job.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
</tbody>
</table>

MY SUPERVISOR...

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ee.</td>
<td>. . . handles the administrative parts of his or her job extremely well.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
</tbody>
</table>

MY SUPERVISOR...

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>vv</td>
<td>knows the technical parts of his or her job extremely well</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
</tbody>
</table>
MODULE 7 — INTERGROUP RELATIONS

The next questions ask about relationships between work groups and departments, and about ways of handling problems. Please follow the directions given in the boxes at the beginning of each set of questions.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Slightly Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The different work groups here don't need each other to make decisions about their work.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>7:21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. If another group gets a pay increase it is more difficult for our group to get one.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>7:23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Some of the groups we have to deal with “won’t give an inch.”</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>7:24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. We can’t change the way we do things without clearing it with other groups.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>7:25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. It is necessary for groups to work together to get the job done.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>7:26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. People in other work groups really try to understand the problems and conditions we have to deal with on our jobs.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>7:27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. If you know what work group people are in you know a lot about them.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td>7:31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HOW MUCH DO YOU AGREE OR DISAGREE
WITH THE FOLLOWING STATEMENTS AS A
DESCRIPTION OF HOW THINGS ARE IN THIS
ORGANIZATION?

m. Different groups in this organization work together
to solve common problems. .................................................. 7:33
n. Because there isn’t enough money, not all groups
get what they need. ............................................................. 7:34
o. It is in my best interests for other work groups
to perform well. .................................................................. 7:35
p. In general, different groups here work well with
each other. ........................................................................... 7:36
q. Different groups seem to be working toward
different goals. .................................................................. 7:37
r. When things go well for my group they seem to
go badly for other groups. ..................................................... 7:38
s. People in other work groups are easy to work
with. .......................................................................................... 7:39
t. There is a lot of conflict between different
groups in this organization. .................................................. 7:40

2. MOST ORGANIZATIONS HAVE SOME CONFLICTS
BETWEEN GROUPS. THIS CONFLICT CAN HAVE
DIFFERENT KINDS OF RESULTS. BELOW ARE
SOME STATEMENTS ABOUT THE RESULTS OF
CONFLICT. HOW MUCH DO YOU AGREE OR
DISAGREE WITH EACH STATEMENTS?

a. There is so much conflict with other groups around
here that I frequently feel very tense. ......................... 7:41
b. Despite conflict between groups work seems to get
done around here. ................................................................. 7:42
c. The amount of conflict that exists between groups
here makes this an unpleasant place to work. ....... 7:43
d. Members of our group work harder because we are
in competition with other groups. ............................... 7:44
e. There is so much conflict between groups that I
often don’t feel like coming to work. ......................... 7:45
f. The conflict that exists between groups gets in
the way of getting the job done. ................................. 7:46
g. Because of the problems that exist between groups
I feel a lot of pressure on the job. ................................. 7:47
h. Despite the differences between groups here, this
is a pretty good place to work. ................................. 7:48
3. What groups here do you have the most trouble with?

________________________________________________________________________

________________________________________________________________________

4. What kinds of problems do you have with them?

________________________________________________________________________

________________________________________________________________________

5. IN ORGANIZATIONS CONFLICT BETWEEN GROUPS IS OFTEN DEALT WITH IN DIFFERENT WAYS. BELOW IS A LIST OF METHODS WHICH MIGHT BE USED TO RESOLVE CONFLICT. HOW FREQUENTLY ARE EACH OF THESE METHODS USED TO RESOLVE CONFLICT IN THIS ORGANIZATION.

<table>
<thead>
<tr>
<th>Method</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. When problems arise, people usually ignore them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. When problems arise everybody involved works together to solve them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. People try at all costs to avoid offending others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Conflicts are usually ignored when possible.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. When conflicts occur, people wait for them to go away.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Employees use diplomacy and tact to settle disagreements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. People solve problems with others by confronting them directly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Supervisors are generally asked to resolve conflicts between subordinates.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. People openly discuss problems with co-workers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7:49

7:50

7:51

7:52

7:53

7:54

7:55

7:56

7:57
HOW FREQUENTLY...

|   |   |   |   |   |   |   |   |   |
|---|--|--|--|--|--|--|--|
| j. When people have problems with each other they generally sit down and work them out. | [1] | [2] | [3] | [4] | [5] | [6] | [7] | 7:58 |
MODULE 8 — INFLUENCE STRUCTURE

This section asks about how decisions are made in this organization. It is also concerned with how much influence you have over decisions that are made here.

As in other parts, read the directions in the boxes and answer the questions by checking the numbers which best represent your opinions.

HERE IS A LIST OF DECISIONS WHICH GET MADE AT WORK. FOR EACH OF THE FOLLOWING DECISIONS, PLEASE INDICATE:

a. How much say you actually have in making these decisions.

b. How much say you feel you should have in making these decisions.

1. Decisions about HOW YOU DO YOUR OWN WORK.

2. Decisions about SCHEDULING YOUR WORK ACTIVITIES.

3. Decisions about HIRING PEOPLE.
   b. How much say you feel you should have in making these decisions. ............................. [1] [2] [3] [4] [5] [6] [7] 8:26
4. Decisions about PAY RAISES.

5. Decisions about CHANGING HOW YOU DO YOUR WORK.
   b. How much say you feel you should have in making these decisions. ................................. [1] [2] [3] [4] [5] [6] [7] 8:30

6. Decisions about WHAT YOU SHOULD DO WHEN SOMETHING UNEXPECTED HAPPENS.

7. Decisions about HOW TO SETTLE DISAGREEMENTS.
   b. How much say you feel you should have in making these decisions. ................................. [1] [2] [3] [4] [5] [6] [7] 8:34

8. Decisions about FIRING PEOPLE.

9. Decisions about WHEN PEOPLE TAKE TIME OFF.
   b. How much say you feel you should have in making these decisions. ................................. [1] [2] [3] [4] [5] [6] [7] 8:38
10. Decisions about **WHAT TO DO IF SOMEONE YOU DEPEND ON DOESN'T DO THEIR JOB.**


b. How much say you feel you should have in making these decisions. ............................. [1] [2] [3] [4] [5] [6] [7] 8:40

11. Decisions about **PROMOTING PEOPLE.**


b. How much say you feel you should have in making these decisions. ............................. [1] [2] [3] [4] [5] [6] [7] 8:42

12. Decisions about **HOW TO HANDLE PROBLEMS YOU FACE IN YOUR WORK.**


13. Decisions about **HOW WORK WILL BE DIVIDED AMONG PEOPLE.**


b. How much say you feel you should have in making these decisions. ............................. [1] [2] [3] [4] [5] [6] [7] 8:46

14. Decisions about **WHAT TO DO IF YOU DON'T GET WHAT YOU NEED TO DO YOUR WORK.**


15. Decisions about **WHAT YOU DO DAY TO DAY.**


b. How much say you feel you should have in making these decisions. ............................. [1] [2] [3] [4] [5] [6] [7] 8:50
Sometimes the location of formal authority for certain decisions is not at all clear. For example, one person may be responsible at one time, while another person may have this authority at another time. The following questions deal with this problem.

16. Do you have a clear idea of who makes the following decisions?

   a. Deciding how you coordinate your activities with others. ...........................................
   b. Deciding whether you are promoted. .........................
   c. Deciding to spend anything more than small amounts of money. ........................................

17. How much do you agree or disagree with the following statements?

   a. I have a lot of say over how decisions are made. ....
   b. I seldom have decisions forced on me. .........................
   c. I can modify decisions made by other people. ............
In this section of the questionnaire, we ask about some things you believe, the way you feel about yourself, and your feelings about life in general.

Research has shown that the way people feel about such matters is related to their work experiences and how they respond to different characteristics of organizations.

People differ in the way they feel about things so, of course, there are no "best" or "right" answers. What we want is a true reflection of the way you feel, so please respond to each statement as accurately as possible.

1. Below are listed some words and phrases which ask you how you feel about your present life in general. For example, if you think that your life is very interesting, put a mark in the box right next to the word "interesting". If you feel that your life is very boring, put a mark in the box right next to the word "boring". If you feel somewhere in between, put a mark where you think it belongs. Put a mark in one box on every line.

How do you feel about your present life in general?

2. HERE ARE SOME STATEMENTS REGARDING HOW YOU MIGHT FEEL ABOUT YOURSELF OR YOUR WORK. THERE ARE NO “RIGHT” OR “WRONG” ANSWERS; EACH PERSON WILL FEEL SOMEWHAT DIFFERENTLY. PLEASE INDICATE HOW MUCH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. When changes are made in this organization, the employees usually lose out in the end.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>e. All in all, I am pretty happy these days.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>h. If we made a few changes here, this could be a much better place to work.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
</tbody>
</table>

3. THE FOLLOWING ARE THINGS A PERSON MIGHT SAY ABOUT HIM/HERSELF. HOW OFTEN DO YOU FEEL THIS WAY AT WORK?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. My mind is as clear as it used to be.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
</tr>
</tbody>
</table>
4. THIS SET OF QUESTIONS ASKS HOW YOU FEEL ABOUT YOURSELF. FOR EACH PAIR OF WORDS, CHECK THE NUMBER WHICH BEST DESCRIBES HOW YOU SEE YOURSELF AT WORK.

HOW DO YOU SEE YOURSELF AT WORK?

Labor unions have well recognized roles in bargaining wages, job security and benefits for the employees they represent. Most have no recognized role in negotiating issues related to personnel policies, job design and organizational development (Strauss et al., 1974). Their traditional role with respect to such issues has been that of the critic, reacting to management decisions rather than participating in them (Sturmthal, 1964). Their involvement has more often come through the grievance procedure rather than the bargaining table. Experiments carried out in the Quality of Work Program involve the creation of union-management teams that may consider and act upon these very issues. It is therefore likely that the nature of the union-management relationship will be altered as a result of the relationship developed through the union-management team. The purpose of the union assessment instrument is to evaluate the implications of the experiment for the union, its governance, its relations with its members and management.

Since the locus of the experiments may be at any level from the shop floor to the entire company, we have developed four assessment instruments. One is for the site historian to document the current union structure, its formal policies and procedures and its contractual relationship with management. The others are questionnaires for assessing members, union leaders and management's perspectives of the union and its relationship to management.
The impact of the experiments may be to extend union involvement to solving problems that were previously management prerogatives. The site historian will document these changes as they are incorporated into formal union policies and procedures and the contract. The members, leaders and manager's questionnaires will be used to determine if the experiments had any effects on perceptions of union-management relations or on the perceived relation between the union and its members. Scales for all three questionnaires are still being developed. The following preliminary scales appear on the union member instrument:

a. Global affect towards unions in general
b. Instrumental effectiveness of unions in general

* c. Global evaluation of the union in this site
* d. Evaluation of this union's process
* e. Satisfaction with extrinsic outcomes
* f. Satisfaction with task related outcomes

* g. Satisfaction with union leadership
  h. Willingness to participate
  i. Willingness to act as a union representative
  j. Union's influence with management

k. Member influence in initiating activity

* l. Dual loyalty

* m. Member influence on union decision making (leader's scale measures leader influence)

* n. Union-management relationship

* o. Perception of control over grievances, collective bargaining and union process

p. Leadership activities members' scale measures perceptions of how much time and effort leaders should and do spend in a series of activities; leader's scale measures how much time they do spend in each activity and how much time they believe the union membership thinks they should spend.
The following scales occur on the union leader and management questionnaire:

- a. Union-management relations in negotiations
- b. Union-management relations in grievances
- c. Union-management relations in general

Notes:

* Indicates that the scale also appears on the union leader instrument.

1. These items are grouped together but do not form a scale.

2. These scales have not yet been revised.

3. These scales have not yet been revised.

REFERENCES


# SCALES: UNION MEMBER QUESTIONNAIRE

I. Global affect toward Unions in general

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Unions are becoming too strong</td>
<td>.775</td>
</tr>
<tr>
<td>b. We need more laws to limit the power of unions</td>
<td>.695</td>
</tr>
<tr>
<td>c. Union wage demands cause unemployment</td>
<td>.701</td>
</tr>
<tr>
<td>d. Union wage rates cause high prices</td>
<td>.647</td>
</tr>
</tbody>
</table>

II. Instrumental effectiveness of Unions in general

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Unions protect against favoritism on the job</td>
<td>.578</td>
</tr>
<tr>
<td>b. Unions improve wages and working conditions</td>
<td>.569</td>
</tr>
<tr>
<td>c. Unions make sure that employees are treated fairly by supervisors</td>
<td>.343</td>
</tr>
<tr>
<td>d. Unions interfere with good relations between employers and employees</td>
<td>.139</td>
</tr>
<tr>
<td>e. The result of strikes is better wages and working conditions</td>
<td>---</td>
</tr>
</tbody>
</table>

III. Global evaluation of this Union

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. All in all, I am very satisfied with the union</td>
<td>.725</td>
</tr>
<tr>
<td>b. I feel that being a union member is worthwhile</td>
<td>---</td>
</tr>
<tr>
<td>c. I agree with the basic goals of the union</td>
<td>---</td>
</tr>
<tr>
<td>d. Participation in union activities is worthwhile</td>
<td>.522</td>
</tr>
<tr>
<td>e. The union will support employees' grievances</td>
<td>---</td>
</tr>
<tr>
<td>f. I am satisfied with the amount of communication between the union and its members</td>
<td>.718</td>
</tr>
<tr>
<td>g. I am satisfied with the success the union has in bargaining non-wage issues</td>
<td>.688</td>
</tr>
<tr>
<td>h. I am satisfied with the success the union has in bargaining wage issues</td>
<td>.699</td>
</tr>
</tbody>
</table>

---

1 Rewritten item
IV. Evaluation of this Union's Process

a. Members of the union are afraid to express their real views in union meetings
b. The union is known for not getting much done
c. In the union, everyone's opinion gets listened to
d. Decisions are made in the union without ever asking the people who have to live with them
e. In general, I like the way the union handles things
f. I feel free to tell the union leaders what I really think
g. It is hard to get the union officers to listen to the members
h. No one agrees about what the union should do
i. Members are kept informed about union activities
j. I like the way the union handles grievances
k. The way local officers are chosen is fair
l. I am satisfied with the way issues are selected for collective bargaining
m. The way job stewards or group representatives are chosen is fair
n. I feel I can influence union decisions
o. I am dissatisfied with the way union communicates with its members

V. Satisfaction with Extrinsic Outcomes

a. Safer working conditions
b. Better fringe benefits
c. Better working hours
d. Fairer discipline procedures
e. Increased job security
f. Better overtime schedules
g. Fairer promotion policies
h. Fairer policies for reductions in the work force
i. Improved sick leave policies
j. More holiday and vacation time
k. Pay raises
l. Improvements in physical working conditions
m. Improved grievance procedure

\[ \alpha = 0.860 \]

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>0.610</td>
</tr>
<tr>
<td>b</td>
<td>0.613</td>
</tr>
<tr>
<td>c</td>
<td>0.727</td>
</tr>
<tr>
<td>d</td>
<td>0.586</td>
</tr>
<tr>
<td>e</td>
<td>0.858</td>
</tr>
<tr>
<td>f</td>
<td>0.535</td>
</tr>
<tr>
<td>g</td>
<td>0.332</td>
</tr>
<tr>
<td>h</td>
<td>---</td>
</tr>
<tr>
<td>i</td>
<td>0.282</td>
</tr>
<tr>
<td>j</td>
<td>0.300</td>
</tr>
<tr>
<td>k</td>
<td>0.394</td>
</tr>
<tr>
<td>l</td>
<td>0.494</td>
</tr>
<tr>
<td>m</td>
<td>0.310</td>
</tr>
<tr>
<td>n</td>
<td>0.567</td>
</tr>
<tr>
<td>o</td>
<td>0.510</td>
</tr>
</tbody>
</table>

\[ \alpha = 0.909 \]

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>0.611</td>
</tr>
<tr>
<td>b</td>
<td>0.636</td>
</tr>
<tr>
<td>c</td>
<td>0.499</td>
</tr>
<tr>
<td>d</td>
<td>0.662</td>
</tr>
<tr>
<td>e</td>
<td>0.718</td>
</tr>
<tr>
<td>f</td>
<td>0.621</td>
</tr>
<tr>
<td>g</td>
<td>0.613</td>
</tr>
<tr>
<td>h</td>
<td>0.627</td>
</tr>
<tr>
<td>i</td>
<td>0.669</td>
</tr>
<tr>
<td>j</td>
<td>0.601</td>
</tr>
<tr>
<td>k</td>
<td>0.650</td>
</tr>
<tr>
<td>l</td>
<td>0.591</td>
</tr>
<tr>
<td>m</td>
<td>---</td>
</tr>
</tbody>
</table>
VI. Satisfaction with Task related Outcomes

a. Fairer job classifications
b. More participation in job related decisions
c. More challenging jobs
d. Fairer work loads
e. More meaningful work

VII. Satisfaction with Union Leadership

a. - are effective in handling grievances
b. - encourage members to speak up when they disagree with a union decision
c. - keep informed about how union members think and feel about union matters
d. - are respected by the union members
e. - encourage union members to participate in important decisions
f. - help solve potential grievances before they are filed
g. - spend union funds wisely
h. - stick up for members
i. - are effective in negotiating contracts
j. - are trusted by union members

VIII. Willingness to Participate

a. Serve on a regular union committee
b. Serve on a special union committee
c. Serve on a union-management committee
d. Be a candidate for a local office
e. Be a candidate for a district office
f. Attend a regular union meeting

IX. Willingness to Act as a Union Representative

a. Support a political candidate recommended by the union
b. Attend a public meeting as a representative of the union
c. Write a letter to government official supporting the union position

\[ \text{Item/Total} \]

\[ \alpha \]
XI. Unions Influence with Management

- a. Deciding how to solve work related problems
- b. Changing work procedures in your area
- c. Pay raises associated with promotions
- d. Scheduling work activities
- e. The way jobs are classified
- f. Pay raises associated within grade increases
- g. Increasing fringe benefits
- h. The hours people work
- i. Who is promoted
- j. Hiring
- k. Reduction in work force
- l. Deciding how work will be divided up among employees
- m. Buying new equipment in your area
- n. Employee discipline
- o. Making your work more meaningful
- p. Determining work procedures in your area

\[ \alpha \begin{array}{c|c}
\text{Item/Total} \\
\hline
\text{Unions Influence with Management} & .936 \\
- a. Deciding how to solve work related problems & .631 \\
- b. Changing work procedures in your area & .735 \\
- c. Pay raises associated with promotions & .648 \\
- d. Scheduling work activities & .750 \\
- e. The way jobs are classified & .671 \\
- f. Pay raises associated within grade increases & .608 \\
- g. Increasing fringe benefits & .556 \\
- h. The hours people work & .622 \\
- i. Who is promoted & .755 \\
- j. Hiring & .718 \\
- k. Reduction in work force & .623 \\
- l. Deciding how work will be divided up among employees & .702 \\
- m. Buying new equipment in your area & .665 \\
- n. Employee discipline & .673 \\
- o. Making your work more meaningful & .756 \\
- p. Determining work procedures in your area & .754 \\
\end{array} \]

XI. Dual Loyalty

- a. It is easy to be loyal to both the union and the management
- b. Basically, the union and the management have similar goals
- c. There is no reason why the union and management cannot work together
- d. The union and the management are generally opposed to each other
- e. You can't be a union member and support management at the same time
- f. The management here makes it easy to conduct union business
- g. The management makes it difficult for me to talk to my group representative or job steward
- h. The union helps me deal effectively with the management
- i. Union members don't like it if you try to help management improve work effectiveness

\[ ^1 \text{Not a scale. Should be tested in another site} \]
XII. Member Influence on Decision making .946

a. Deciding who will serve on local union committees .582
b. Deciding which issues will be brought up in bargaining .738
c. Deciding which issues to drop or compromise during bargaining .824
d. Deciding to call a union meeting .818
e. Spending local union funds .798
f. Hiring permanent union employees .793
g. Resolving conflicts among union members .858
h. Deciding whom to support if two union members conflict in a grievance .660
i. Deciding how to deal with other unions in the organization .761
j. Deciding which strategy to use in negotiations .809
k. Deciding what strategy to use in pushing grievances .783
l. Recalling an elected union official .703
m. Deciding to raise dues 1 ---

XIII. Member Influence in Initiating Activity .702

a. Deciding to file a grievance which concerns you .636
b. Deciding to take a grievance which concerns you to arbitration .538
c. Nominating people to run for local office in the union .398
d. Placing an issue on the agenda of union meetings 1 ---
This questionnaire is designed to collect information about your union as an organization and as your representative. This survey is part of the overall assessment associated with the Quality of Work Experiment here. It will provide some of the baseline data needed to measure the changes which result from it.

Some of the questions are objective, factual; others ask for your personal views and opinions. For the survey to be useful, it is important that you answer each question as carefully and as frankly as possible.

Your answers will be completely confidential. No one in this organization or in your union will ever have access to survey information about any individual's answers. All questionnaires will be taken to the Institute for Social Research at The University of Michigan for analysis and safekeeping. Only statistical summaries for groups of union members will be reported.

To help insure your privacy, we prefer not to have your name or any easily identifiable information on your questionnaire. At the same time, we need to match your questionnaire with the one you have already filled out. As a result, our research staff has provided a special identification number for each employee. This number will be used only for matching information from different sources and times. It will not be used for any other purpose.

Your number is on a sticker attached to the following page. Although you may remove the identification sticker, we hope you will help us by leaving it there.

This survey is part of the National Quality of Work Program in which your organization is cooperating and which is paying for the cost of this survey. The questionnaire includes some standard questions designed to allow comparison among unions in different organizations. Therefore, some of the questions may seem a little unsuited to your own situation. Please answer them all as best you can, taking them in order as they appear.

Thank you for your cooperation. We hope you find the questionnaire interesting and thought provoking.
GENERAL INSTRUCTIONS

Most of the questions ask that you check one of several numbers that appear on a scale to the right of the item. You are to choose the one number that best matches the description of how you feel about the item. For example, if you were asked how much you agree with the statement, “I enjoy the weather in this town,” and you feel that you do agree, you would check the number under “Agree”, like this:


Note that the scale descriptions may be different in different parts of the questionnaire. For example, they may ask not whether you agree or disagree, but perhaps whether you are satisfied or dissatisfied, or whether you think something to be likely or not likely to happen, etc.

So, be sure to read the special instructions that appear in boxes on each page. Be sure to read the scale descriptions before choosing your answers.

When you have finished, please place the questionnaire in the envelope, remove your name from the outside, and return the envelope to the designated place or person.

* * * * * * * * * * * * *

This is your Michigan Identification Number:

These codes are for Michigan use only:

Deck:
Project Number:
Label:

GO RIGHT ON TO PART 1, next page...
PART 1

In the first part of the questionnaire we would like to find out about your opinion of unions in general. People differ in the way they feel about unions so there is no best or right answers to these questions. What we want to have is a true reflection of the way you feel.

All of your responses are strictly confidential; individual responses will not be seen by anyone in the organization or in the union. We appreciate your help in providing this important information.

1. HERE ARE A NUMBER OF STATEMENTS MADE BY PEOPLE IN OTHER ORGANIZATIONS WITH REGARD TO UNIONS. WE WOULD LIKE TO KNOW WHETHER YOU AGREE OR DISAGREE, IN GENERAL, WITH EACH OF THESE STATEMENTS. REMEMBER, WE ARE INTERESTED IN YOUR OPINION OF UNIONS IN GENERAL AND NOT THE

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>
PART 2

In this section we are interested in finding out how satisfied you are with your union and its activities. Follow the directions given in the boxes at the beginning of each set of questions.

2. HERE ARE STATEMENTS WHICH MAY (OR MAY NOT) DESCRIBE YOUR FEELINGS. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

   Strongly Disagree  Disagree  Slightly Disagree  Neither Agree nor Disagree  Slightly Agree  Agree  Strongly Agree


   a. All in all, I am very satisfied with the union. ............

   b. I feel that being a union member is worthwhile. ......

   c. I agree with the basic goals of the union. ..............

   d. Participation in union activities is worthwhile. .......

   e. The union will support employees' grievances. .......

   f. I am satisfied with the amount of communication
      between the union and its members. ....................

   g. I am satisfied with the success the union has in
      bargaining non-wage issues. .........................

   h. I am satisfied with the success the union has in
      bargaining wage issues. ..............................

   i. Members of the union are afraid to express their
      real views in union meetings. .......................

   j. The union is known for not getting much done. .....  

   k. In the union, everyone's opinion gets listened to. ... 

   l. Decisions are made in the union without ever
      asking the people who have to live with them. ...

   m. In general, I like the way the union handles
      things. ..................................................

   n. I feel free to tell the union leaders what I
      really think. ...........................................

   o. It is hard to get the union officers to listen to
      the members. ........................................

   p. No one agrees about what the union should do. .......

   q. Members are kept informed about union activities. ...

   r. I like the way the union handles grievances. .........

   s. The way local officers are chosen is fair. ............

   t. I am satisfied with the way issues are selected
      for collective bargaining. ...........................
**AGREE OR DISAGREE . . .**

u. The way job stewards or group representatives are chosen is fair. ......................................................

v. I feel I can influence union decisions. .........................

w. I am dissatisfied with the way the union communicates with its members. ............................................

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Slightly Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

3. **HOW SATISFIED ARE YOU WITH THE EFFORTS WHICH THE UNION HAS MADE TO GET EACH OF THE FOLLOWING OUTCOMES FOR ITS MEMBERS?**

<table>
<thead>
<tr>
<th></th>
<th>Very Dissatisfied</th>
<th>Dissatisfied</th>
<th>Slightly Dissatisfied</th>
<th>Neither Satisfied nor Satisfied</th>
<th>Slightly Satisfied</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Safer working conditions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>b. Better fringe benefits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>c. Better working hours</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>d. Fairer discipline procedures</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>e. Increased job security</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>f. Better overtime schedules</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>g. Fairer promotion policies</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>h. Fairer policies for reductions in the work force</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>i. Improved sick leave policies</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>j. More holiday and vacation time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>k. Pay raises</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>l. Improvements in physical working conditions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>m. Improved grievance procedures</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>n. Fairer job classifications</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>o. More participation in job related decisions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>p. More challenging jobs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>q. Fairer work loads</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>r. More meaningful work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
Part 3 of the questionnaire asks about the leaders of your union. As with all the questions, this information will be strictly confidential.

4. THE FOLLOWING STATEMENTS ARE DESCRIPTIONS OF THE WAY THE LEADERS OF THIS UNION MIGHT ACT. PLEASE INDICATE WHETHER YOU AGREE OR DISAGREE WITH EACH STATEMENT AS A DESCRIPTION OF THIS UNION'S LEADERSHIP.

THE LEADERS OF THIS UNION . . .

a. . . . are effective in handling grievances.

b. . . . encourage members to speak up when they disagree with a union decision.

c. . . . keep informed about how union members think and feel about union matters.

d. . . . are respected by the union members.

e. . . . encourage union members to participate in important decisions.

f. . . . help solve potential grievances before they are filed.

g. . . . spend union funds wisely.

h. . . . stick up for members.

i. . . . are effective in negotiating contracts.

j. . . . are trusted by union members.

5. HOW MUCH TIME AND EFFORT DO YOU THINK THE UNION LEADERSHIP SHOULD SPEND . . .

a. . . . improving your pay and benefits.

b. . . . helping members solve day-to-day problems.

c. . . . representing union member's grievances.

d. . . . organizing union social activities.

e. . . . representing the union in community and political affairs.
TIME UNION LEADERSHIP SHOULD SPEND...

<table>
<thead>
<tr>
<th></th>
<th>f. dealing with other unions.</th>
<th>g. improving job classifications and work procedures.</th>
<th>h. helping union members get more challenging and meaningful jobs.</th>
<th>i. improving job security.</th>
<th>j. improving the management of the union.</th>
<th>k. improving the way supervisors treat members.</th>
<th>l. increasing member's participation in making work related decisions.</th>
<th>m. recruiting new members to the union.</th>
</tr>
</thead>
</table>

6. HOW MUCH TIME AND EFFORT DO YOU THINK UNION LEADERSHIP ACTUALLY SPENDS...

<table>
<thead>
<tr>
<th></th>
<th>a. improving your pay and benefits.</th>
<th>b. helping members solve day-to-day problems.</th>
<th>c. representing union member's grievances.</th>
<th>d. organizing union social activities.</th>
<th>e. representing the union in community and political affairs.</th>
<th>f. dealing with other unions.</th>
<th>g. improving job classifications and work procedures.</th>
<th>h. helping union members get more challenging and meaningful jobs.</th>
<th>i. improving job security.</th>
<th>j. improving the management of the union.</th>
<th>k. improving the way supervisors treat members.</th>
<th>l. increasing member's participation in making work related decisions.</th>
<th>m. recruiting new members to the union.</th>
</tr>
</thead>
</table>

None At All | A Moderate Amount | A Great Amount
PART 4

This part asks you about your participation in union activities. For each section, follow the directions that are given in the boxes at the beginning of the list of questions.

7. ARE YOU CURRENTLY OR DURING THE LAST FIVE YEARS HAVE YOU SERVED IN ANY OF THE FOLLOWING UNION OFFICES?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Representative to a union-management committee such as the Quality of Work Committee</td>
</tr>
<tr>
<td>b.</td>
<td>Local Elected official</td>
</tr>
<tr>
<td></td>
<td>i. President, Secretary, Treasurer, etc.</td>
</tr>
<tr>
<td></td>
<td>ii. Job steward or group representative</td>
</tr>
<tr>
<td></td>
<td>iii. Member of a committee</td>
</tr>
<tr>
<td>c.</td>
<td>Local appointed official including union committee</td>
</tr>
<tr>
<td>d.</td>
<td>District elected official</td>
</tr>
<tr>
<td>e.</td>
<td>District appointed committee</td>
</tr>
</tbody>
</table>

8. PLEASE ANSWER THE FOLLOWING QUESTIONS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Did you vote in the last union election?</td>
</tr>
<tr>
<td>b.</td>
<td>Have you read the union contract?</td>
</tr>
<tr>
<td>c.</td>
<td>Have you read the local bylaws?</td>
</tr>
<tr>
<td>d.</td>
<td>Have you filed a grievance in the past two years?</td>
</tr>
<tr>
<td>e.</td>
<td>Do you read the union newsletter?</td>
</tr>
</tbody>
</table>

9. IF A UNION LEADER OR ANOTHER UNION MEMBER ASKED YOU TO, HOW LIKELY IS IT THAT YOU WOULD DO EACH OF THE FOLLOWING?

<table>
<thead>
<tr>
<th></th>
<th>Not At All Likely</th>
<th>Somewhat Likely</th>
<th>Quite Likely</th>
<th>Extremely Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Serve on a regular union committee</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Serve on a special union committee</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Serve on a union-management committee as a union representative</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Be a candidate for a local union office.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
HOW LIKELY IS IT THAT YOU WOULD...

e. Be a candidate for a district union office
f. Attend a regular union meeting
g. Support a political candidate recommended by the union
h. Attend a public meeting as a representative of the union
i. Write a letter to a government official supporting the union position
j. Participate in a work slowdown
k. Boycott a product
l. Participate in a strike
m. Participate in a non-authorized strike

PART 5

Part 5 is concerned with how well you think the union gets along with management.

10. PLEASE INDICATE HOW MUCH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS.

a. It is easy to be loyal to both the union and the management.
b. Basically, the union and the management have similar goals.
c. There is no reason why the union and management cannot work together.
d. The union and the management are generally opposed to each other.
e. You can't be a union member and support management at the same time.
f. The management here makes it easy to conduct union business.
g. The management makes it difficult for me to talk to my group representative or job steward.
AGREE OR DISAGREE . . .

h. The union helps me deal effectively with the management. ................................................................. [1] [2] [3] [4] [5] [6] [7]


11. HOW GOOD IS THE RELATIONSHIP BETWEEN THE LOCAL UNION AND . . .


12. IN GENERAL, HOW MUCH SAY OR INFLUENCE DOES YOUR UNION HAVE WITH MANAGEMENT IN EACH OF THE FOLLOWING AREAS?


l. Deciding how work will be divided up among employees ................................................................. [1] [2] [3] [4] [5] [6] [7]


**PART 6**

Part 6 is concerned with your impressions about how things are done in this union and how decisions are made.

As in the other parts, read the special directions in the boxes first.

### 13. IN GENERAL, HOW MUCH SAY OR INFLUENCE DOES EACH OF THE FOLLOWING GROUPS HAVE OVER THE WAY GRIEVANCES ARE HANDLED IN YOUR UNION?

<table>
<thead>
<tr>
<th>Group</th>
<th>Little or No Influence</th>
<th>Moderate Influence</th>
<th>A Great Deal of Influence</th>
<th>Don't Know</th>
</tr>
</thead>
</table>

### 14. IN GENERAL, HOW MUCH SAY OR INFLUENCE DOES EACH OF THE FOLLOWING GROUPS HAVE OVER FINAL COLLECTIVE BARGAINING DECISIONS?

<table>
<thead>
<tr>
<th>Group</th>
<th>Little or No Influence</th>
<th>Moderate Influence</th>
<th>A Great Deal of Influence</th>
<th>Don't Know</th>
</tr>
</thead>
</table>
15. IN GENERAL, HOW MUCH SAY OR INFLUENCE DOES EACH OF THE FOLLOWING GROUPS HAVE OVER THE WAY YOUR UNION IS RUN?

<table>
<thead>
<tr>
<th>Group</th>
<th>Little or No Influence</th>
<th>Moderate Influence</th>
<th>A Great Deal of Influence</th>
</tr>
</thead>
</table>

16. HERE IS A LIST OF DECISIONS WHICH ARE MADE IN YOUR UNION. HOW MUCH SAY OR INFLUENCE DO YOU HAVE IN EACH OF THESE DECISIONS?

<table>
<thead>
<tr>
<th>Decision</th>
<th>Little or No Influence</th>
<th>Moderate Influence</th>
<th>A Great Deal of Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>f. Deciding which issues will be brought up in bargaining.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Deciding which issues to drop or compromise during bargaining.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Deciding how to deal with other unions in the organization.</td>
<td>[1] [2] [3] [4] [5] [6] [7]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This questionnaire is designed to collect information about the role of the union in this organization. This survey is part of the overall assessment associated with the Quality of Work Experiment here. It will provide some of the baseline data needed to measure the changes which result from it.

Some of the questions are objective, factual; others ask for your personal views and opinions. For the survey to be useful, it is important that you answer each question as carefully and as frankly as possible.

Your answers will be completely confidential. No one in the organization or in your union will ever have access to survey information about any individual's answers. All questionnaires will be taken to the Institute for Social Research at The University of Michigan for analysis and safekeeping. Only statistical summaries for groups will be reported.

To help insure your privacy, we prefer not to have your name or any easily identifiable information on your questionnaire. At the same time we need to match your questionnaire with the one you have already filled out. As a result, our research staff has provided a special identification number for each employee. This number will be used only for matching information from different sources and times. It will not be used for any other purpose.

Your number is on a sticker attached to the following page. Although you may remove the identification sticker, we hope you will help us by leaving it there.

This survey is part of the National Quality of Work Program in which your organization is cooperating and which is paying for the cost of this survey. The questionnaire includes some standard questions designed to allow comparison among unions in different organizations. Therefore, some of the questions may seem a little unsuited to your own situation. Please answer them all as best you can, taking them in order as they appear.

Thank you for your cooperation. We hope you find the questionnaire interesting and thought provoking.
Most of the questions ask that you check one of several numbers that appear on a scale to the right of the item. You are to choose the one number that best matches the description of how you feel about the item. For example, if you were asked how much you agree with the statement, “I enjoy the weather in this town,” and you feel that you do agree, you would check the number under “Agree” like this:


Note that the scale descriptions may be different in different parts of the questionnaire. For example, they may ask not whether you agree or disagree, but perhaps whether you are satisfied or dissatisfied, or whether you think something to be likely or not likely to happen, etc.

So, be sure to read the special instructions that appear in boxes on each page. Be sure to read the scale descriptions before choosing your answers.

When you have finished, please place the questionnaire in the envelope, remove your name from the outside, and return the envelope to the designated place or person.

* * * * * * * * * * * *

This is your Michigan Identification Number:

These codes are for Michigan use only:

Deck:
Project Number:
Label:
These questions ask you to describe the relationship between the union and management. Please do not try to indicate your feelings about the relationship, just try to be as accurate and factually correct possible.

All of your responses are strictly confidential; individual responses will not be seen by anyone in this organization or in the union. We appreciate your help in providing this important information.

1. THE FOLLOWING STATEMENTS MIGHT DESCRIBE THE RELATIONSHIPS BETWEEN THE UNION AND MANAGEMENT. HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH?

IN NEGOTIATIONS . . .

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Slightly Agree</th>
<th>Neither Agree</th>
<th>Slightly Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. management won't give in on anything unless it is forced.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>e. union and management try to weaken each other's position any way they can.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>f. the union won't give in on anything unless they are forced.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>h. union and management try to help each other whenever they can.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>i. the union won't listen to new ideas.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>j. bargaining is tough but fair.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>k. both sides are willing to make concessions.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>m. the union is only willing to negotiate about a few specific issues.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
<tr>
<td>n. union and management are hostile toward each other.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
<td>[7]</td>
</tr>
</tbody>
</table>
AGREE OR DISAGREE ...

IN NEGOTIATIONS ...

p. ... the union makes concessions to avoid trouble. ................................................................. [1] [2] [3] [4] [5] [6] [7] [8]
q. ... management is only willing to negotiate about a few specific issues. ................................. [1] [2] [3] [4] [5] [6] [7] [8]
r. ... management won't listen to new ideas. ................................................................. [1] [2] [3] [4] [5] [6] [7] [8]
s. ... management and the union are willing to try solutions which haven't been tried before. .......... [1] [2] [3] [4] [5] [6] [7] [8]

IN DEALING WITH GRIEVANCES ...

t. ... the union is primarily interested in supporting its members. ................................................ [1] [2] [3] [4] [5] [6] [7] [8]
u. ... management uses pressure tactics. ................................................................. [1] [2] [3] [4] [5] [6] [7] [8]
v. ... union and management share all relevant information. .......................................................... [1] [2] [3] [4] [5] [6] [7] [8]
w. ... the union and management try to find a fair solution. .......................................................... [1] [2] [3] [4] [5] [6] [7] [8]
x. ... management tries to understand the other side. ..................................................................... [1] [2] [3] [4] [5] [6] [7] [8]

IN GENERAL ...

y. ... the union can be trusted to live up to its agreement. ............................................................. [1] [2] [3] [4] [5] [6] [7] [8]
z. ... when the union says something, management can believe them. ......................................... [1] [2] [3] [4] [5] [6] [7] [8]
AGREE OR DISAGREE . . .

IN GENERAL . . .

<p>| | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>aa.</td>
<td>the union is reasonable when dealing with management.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bb.</td>
<td>management and the union both have a stake in the effectiveness of the organization.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cc.</td>
<td>the union abuses its power.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dd.</td>
<td>the union tries to uphold the contract.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ee.</td>
<td>the union has a positive view of management.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ff.</td>
<td>the union tries to interfere with the way the organization is run.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gg.</td>
<td>the union interferes when management tries to deal with problems.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hh.</td>
<td>the union tries to cooperate with management.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td>the union deals openly with management.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jj.</td>
<td>the union tries to solve problems with management outside of formal negotiations.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kk.</td>
<td>the union will give in to management when management is right.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ll.</td>
<td>the union tries to restrict management's power.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mm.</td>
<td>union and management try to find creative solutions to the problems.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nn.</td>
<td>the union uses pressure tactics to win grievances.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
C. ORGANIZATIONAL STRUCTURE

Michael Moch

Organizational structure refers to patterns of relationships between members of organizations or between organizational subunits. For example, the structure of power in organizations is a relational concept (Emerson, 1962). It has meaning when it is used to characterize the relationship between two or more social actors. Organizational structure consists of patterns of relationships between individual and aggregate social actors in organizations.

A great deal of effort has been directed toward discerning and measuring the dimensions of organizational structure. Perhaps the best known among these efforts are those of the Aston group (Pugh et al., 1963, 1968, 1969) and Peter Blau (Blau, 1973; Blau and Schoenherr, 1971). Problems of measurement involved in assessing structure have been pointed up by Pennings (1973), Whilser (1967), Azumi and McMillan (1973) and others. Scaling problems present other difficulties, even when data have been gathered on many different yet comparable organizations (Mansfield, 1973). The research outlined here represents an attempt to theoretically define relevant structural dimensions and to develop and test alternative measures of these dimensions. While this work builds upon the efforts of others, particularly that of the Aston group and John Child (1973a, 1973b), its theoretical perspective leads it into some areas for which no documented measures have been developed.

Theoretical Perspective

Three dimensions of influence have been discussed in the literature. Becker and Gordon (1966), Perrow (1970), and Hickson et al. (1971)
have focused upon the distribution of discretion or decision-making influence across organizational subunits. Lawrence and Lorsch (1967) and Pfeifer and Salancik (1974) also have investigated this dimension. The Aston group (Pugh et al., 1968, 1969) have focused upon what may be termed the vertical locus of decision making discretion and Blau (1973) and Blau and Schoenherr (1971) and Child (1972) have followed suit. Finally, Tannenbaum (1968) and Hage and Aiken (1967a, 1967b) and others have investigated the extent to which organizational members participate in decision-making. These three dimensions do not exhaust the types or forms influence may take in organizations; however, they do provide a starting point for the development of dimensions and measures of the decision-making structure of organizations.

The focus of the current development effort has been placed upon discerning the decision-making structure of organizations. Theoretical considerations led to a determination of decision-making influence or discretion within pre-determined decision areas. Following theorists such as Thompson (1967), Parsons (1956), Becker and Gordon (1966) and others, measures were developed to assess the patterns of influence within three areas of activities: work activities, coordination activities, and resource-allocation activities (see Moch, Cammann, and Cooke, 1975). Measures of these dimensions converged and discriminated between influence types. Moreover, they were differentially related to a well-known dependent variable, employee satisfaction. Measures also were developed to discern differences between actual, formal, and expected influence within each of these dimensions. These latter measures discriminated only for the work influence dimension.
Measures of the vertical and horizontal distribution of decision-making discretion required the development of a face-to-face interview schedule. The influence measures could be developed within the context of an employee questionnaire; measures of vertical and horizontal discretion require the use of key informants. To measure these dimensions, therefore, two structured interviews were developed. One for individuals who are in a position to report on the decision-making structure of the organization as a whole and another for people who are the most informed about the workings of the departments of the organization of primary concern to the researcher. Items in these schedules reflect the same dimensions employed in the measures of influence. In addition, items have been included to assess the locus of discretion for resolving inter-departmental disputes and for managing interdependencies between departments.

While the theoretical perspective focuses upon decision-making structure, other structural dimensions have been included in the interview schedule. Selection of dimensions was determined by: 1) the frequency with which the dimension has been employed in the literature and 2) the likelihood that the dimensions would predict the decision-making structure of the organization. Standard dimensions included are specialization, task and functional differentiation, standardization and formalization. In addition, three categories of items have been included which promise to predict to the decision-making structure of organization. First, items assessing the nature of the tasks performed, such as the analyzability of search procedures and the frequencies with which non-routine or unexpected events occur (Perrow, 1967; Litwak, 1961)
have been included. Second, task-related inter-unit interdependencies are measured both from the perspective of the organizational sub-unit and the organization as a whole (Thompson, 1967). Finally, the nature of environmental interdependencies have been measured using a series of items designed to assess the extent and frequencies of these interdependencies (Emery and Trist, 1965; Lawrence and Lorsch, 1967; Terreberry, 1968).

The Method

The questionnaire items generally will be applied to all members of the organization. The application of the interview schedule, however, requires careful selection of informed respondents. To facilitate assessment of data quality, it is recommended that the interview designed for those who have knowledge of the workings of the entire organization be applied to the three individuals most informed about such things. Usually, these people are the chief executive officer and two assistants. The department informant interview generally will be given to the three most informed members of each department selected for study. To facilitate comparability across organizations, it is important to select departments whose heads report directly to the chief executive officer of the organization.

Instrument Development

The interview schedules have been developed using schedules developed by others and employing the theoretical perspective outlined above. For such an instrument to be maximally useful, however, it will be important to expand the number of dimensions measured and to rigorously assess the measures currently incorporated into the instrument.
Data currently have been gathered in one organization and two additional applications of the schedules are now anticipated. The work of assessing the data and measures obtained has just begun. Of course, once the data have been gathered on a sufficient number of organizations and departments, the concern will focus upon scale construction. This effort clearly requires that the schedules be applied to many organizations, and this makes it essential that the instruments have appeal to many different types of researchers. We are interested in responding to suggestions for revision and alteration. Eventually, we hope to have measures of structural variables for organizations which will be verified and can be employed with confidence. Such measures will be particularly useful when used in conjunction with those currently being developed for other phases of the Michigan Assessment of Organizations Program.

REFERENCES


C.6

Cooke, R., Moch, M., and Cammann, C. Job characteristics, autonomy, and the perception of influence over work activities. ISR working paper, University of Michigan, 1975.


Moch, M., Cammann, C., and Cooke, R. Some dimensions of organizational influence and intrinsic satisfaction. ISR working paper, University of Michigan, 1975.


INTRODUCTION

Good morning (afternoon), my name is ___________. I am from the Institute for Social Research at The University of Michigan, and we are talking to people in your Division in order to find out more about how it operates. ___________ has agreed to cooperate with us and we have the support of ___________, and ___________. We are assessing the impact of changes currently being made in the Division and are interested in ___________ for comparison purposes. As you probably know, ISR has spent a good deal of time getting information from questionnaires which many people in the Division have been kind enough to fill out. Some things, however, just can't be put in a questionnaire. In order to find out about these things, we need to talk to key people and go into some things in more depth than is possible using a questionnaire. We have learned that it takes a little over an hour to get the kind of information we need. If we hold pretty much to the questions I have, it should not take longer than this. Shall we begin?
Q1. I have a list of things that might be done by specialists in the Division. Some of them (e.g., sales) might not be appropriate for your Division, since you may never have need for such specialists. I will read the list one at a time. For each activity, would you note first, if there are people in your division who specialize in such activities; second, if there are such people, how many there are; and third, if there are no such specialists, whether your Division might ever have a need for any. Finally, I would like to know whether there is anyone outside the Division who performs these activities for the Division. There are a lot of different questions here, so let's take them one at a time.

<table>
<thead>
<tr>
<th>Specialized Activity</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

- **Interviewer Note:** If there is a specialist for an activity, go to column 3 and then column 4. If there is not a specialist for an activity, go to column 2 and then if there could be such a specialist, go to column 4; otherwise go on to the next specialized activity.
<table>
<thead>
<tr>
<th>Specialized Activity</th>
<th>Is there a specialist for this function?</th>
<th>Could there ever be a specialist for this function your division?</th>
<th>How many are there?</th>
<th>Is there anyone in but outside the division who performs these activities for the division?</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Employee welfare (e.g., health plan administration)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Resource acquisition (usually purchasing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Inventory administration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Maintenance (buildings and equipment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Accounting (fiscal control)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Monitoring and control of workflow</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Inspection and quality control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Technical innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Product research and development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized Activity</td>
<td>I</td>
<td>II</td>
<td>III</td>
<td>IV</td>
</tr>
<tr>
<td>----------------------</td>
<td>---</td>
<td>----</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>Is there a specialist for this function?</td>
<td>YES</td>
<td>NO</td>
<td>Could there ever be a specialist for this function your division?</td>
<td>YES</td>
</tr>
<tr>
<td>Is there anyone in but outside the division who performs these activities for the division?</td>
<td>YES</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Administrative innovation and change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Legal problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Market research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q2. Some departments in organizations engage mostly in activities which are well-specified in advance. Other departments work out their procedures as they go along. Here is a list of the twelve branches in the Division. Please rate each branch on the basis of the extent to which the work they do is well-specified in advance.

<table>
<thead>
<tr>
<th>Branch</th>
<th>NOT AT ALL</th>
<th>MODERATELY</th>
<th>TO A VERY great EXTENT</th>
</tr>
</thead>
</table>

Q3. Some departments in organizations work within clearly established time schedules. In other departments it is not possible to estimate how long their work will take, and they, therefore, do not work within established time schedules. Here is another list of the twelve branches in the Division. Please rate each branch on the basis of the extent to which they work within clearly established time schedules.
<table>
<thead>
<tr>
<th>Branch</th>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very Much</th>
<th>To a Great Extent</th>
</tr>
</thead>
</table>

Q4. The next two questions deal with interdependencies between branches of the Division. Some departments in organizations may be very dependent upon others for the performance of their tasks. Other departments may be in a position to do their job regardless of what happens in other departments. Would you rate each Branch on the basis of the extent to which it is dependent upon each other branch in order to do its job? (INTERVIEWER HANDS RESPONDENT A CARD)
The Extent to Which Branch X is Dependent Upon Branch Y
(1 = not at all; 4 = moderately; 7 = to a very great extent)

<table>
<thead>
<tr>
<th>BRANCH X</th>
<th>Architectural Design Branch</th>
<th>Civil Engineering &amp; Design Branch</th>
<th>Electrical Engineering &amp; Design Branch</th>
<th>Mechanical Engineering &amp; Design Branch</th>
<th>Civil Engineering Branch</th>
<th>Electrical Engineering Branch</th>
<th>Mechanical Engineering Branch</th>
<th>Design Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Architectural Design Branch</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
<tr>
<td>2. Civil Engineering &amp; Design Branch</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
<tr>
<td>3. Electrical Engineering &amp; Design Branch</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
<tr>
<td>4. Mechanical Engineering &amp; Design Branch</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
<tr>
<td>5. Civil Engineering Branch</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
<tr>
<td>6. Electrical Engineering Branch</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
<tr>
<td>7. Mechanical Engineering Branch</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
<tr>
<td>8. Design Project</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
<td>1234567</td>
</tr>
</tbody>
</table>
Q6. Sometimes managers of organizations face problems which come from outside the organization. Other times, the problems they face have to do with what goes on within their organizations. What are the three most difficult recurring problems your Division faces which come from within the Division?

1. 
2. 
3. 

Q7. How often do these problems occur?

1. __________________________ year/month/week
2. __________________________ year/month/week
3. __________________________ year/month/week

Q8. Sometimes the causes of problems can be determined easily, but it is still very difficult to find solutions. Other times, it is difficult to find the cause of a problem, even though the solutions are easy once the cause is found. Please rate how easy it is to find the cause for (problem #1 above) and then rate how easy it is to find a solution for it once the cause has been found. (INTERVIEWER HAND RESPONDENT CARD)

(Interviewer will record responses below after termination of the interview.)

<table>
<thead>
<tr>
<th>Problem #1</th>
<th>EXTREMELY EASY</th>
<th>MODERATELY EASY</th>
<th>EXTREMELY DIFFICULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Ease of finding a solution once the cause has been determined</td>
<td>[1] [2] [3] [4] [5] [6] [7] N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q9. Please rate how easy it is to find the cause for (problem #2 above) and then rate how easy it is to find a solution for it once the cause has been found. (Response categories are on card interviewer has handed to respondent.)

Problem #2

1. Ease of determining the cause of the problem

2. Ease of finding a solution once the cause has been determined

Q10. Please rate how easy it is to find the cause for (problem #3 above) and then rate how easy it is to find a solution for it once the cause has been found. (Response categories are on card interviewer has handed to respondent.)

Problem #3

1. Ease of determining the cause of the problem

2. Ease of finding a solution once the cause has been determined

Q11. Thank you. These concerns were limited to problems the branch faces which occur within the branch. What are the three most difficult and recurring problems the branch faces which come from outside the branch?

1. 
2. 
3. 

Q12. How often do these problems occur?
1. ____________________/year/month/day
2. ____________________/year/month/day
3. ____________________/year/month/day

Q13. Sometimes the causes of problems can be determined easily, but it is very difficult to find solutions to these causes. Other times, it is difficult to find the cause of a problem, even though the solutions are easy once the cause is found. Please rate how easy it is to find the cause for (problem #1 above) and then rate how easy it is to find a solution for it once the cause has been found. (INTERVIEWER HAND: RESPONDENT CARD)

(Interviewer will record responses below after termination of the interview.)

Problem #1

1. Ease of determining the cause of the problem

2. Ease of finding a solution once the cause has been determined

<table>
<thead>
<tr>
<th>EXTREMELY EASY</th>
<th>MODERATELY EASY</th>
<th>EXTREMELY DIFFICULT</th>
<th>NOT APPLICABLE</th>
</tr>
</thead>
</table>
Q14. Please rate how easy it is to find the cause for (problem #2 above) and then rate how easy it is to find a solution for it once the cause has been found. (Response categories are on card interviewer has handed to respondent)

Problem #2

1. Ease of determining the cause of the problem

2. Ease of finding a solution once the cause has been determined

Q15. Please rate how easy it is to find the cause for (problem #3 above) and then rate how easy it is to find a solution for it once the cause has been found. (Response categories are on card interviewer has handed to respondent).

Problem #3

1. Ease of determining the cause of the problem

2. Ease of finding a solution once the cause has been determined

TIME NOW: ____________________________
Q16. An important issue in organizations involves who "has a say" in decisions which affect the organization. You have been kind enough to provide us with a set of six problems facing your Division, three which come from outside the Division and three which are internal to . Here is a list of the twelve branches in DED. Keeping in mind the three problems which are internal to . please rate the extent to which the Branch Manager or Assistant Branch Manager of each Branch "has a say" in decisions about how to deal with these sorts of problems.

<table>
<thead>
<tr>
<th>Branch</th>
<th>NOT AT ALL</th>
<th>TO A MODERATE EXTENT</th>
<th>TO A VERY GREAT EXTENT</th>
</tr>
</thead>
</table>
Q17. Here is another list of the Branches in . This time, keeping in mind the three problems you mentioned which come from outside, please rate the extent to which the Branch Manager or Assistant Branch Manager of each branch "has a say" in decisions about how to deal with these sorts of problems.

<table>
<thead>
<tr>
<th>Branch</th>
<th>NOT AT ALL</th>
<th>TO A MODERATE EXTENT</th>
<th>TO A GREAT EXTENT</th>
</tr>
</thead>
</table>
Q18. Here is a list of different types of decisions. Please rate the extent to which each of the different types of people "have a say" in making these decisions in the Division. (where 1 = not at all; 4 = to a moderate extent; and 7 = to a very great extent)

<table>
<thead>
<tr>
<th>Decision Types</th>
<th>Division Director or Assistant Division Director</th>
<th>Branch Chief or Assistant Branch Chief</th>
<th>Section Supervisors</th>
<th>Other Branch Personnel Below the Level of Section Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Decisions about how people in the Division do their work.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2. Decisions about scheduling work activities in the Division</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3. Decisions about hiring people in the Division</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4. Decisions about pay raises for the Division personnel</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5. Decisions about changing how people do their work in the Division</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6. Decisions about what people should do when something unexpected happens in the Division</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
### Decision Types

<table>
<thead>
<tr>
<th>Decision Types</th>
<th>Division Director or Assistant Division Director</th>
<th>Branch Chief or Assistant Branch Chief</th>
<th>Section Supervisors</th>
<th>Other Branch Personnel Below the Level of Section Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Decisions about how to settle disagreements between people in the Division</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8. Decisions about firing people in the Division</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>9. Decisions about what should be done when someone in the Division isn't doing their job.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>10. Decisions about promoting people in the Division.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>11. Decisions about how work-related problems are solved in the Division.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>12. Decisions about how work will be divided up among people in the Division</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>13. Decisions about what should be done when people in the Division don't get what they need to do their work.</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>14. Decisions about what people in the Division do day-to-day</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>15. Decisions about when people in the Division take time off</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
Q19. There are many ways managers of organizations go about making sure that things are going well in the various departments of their organization. Here is a list of the different approaches managers may take. Please rate them on the basis of the extent to which they are used in the Division to make sure that things are going well in the various branches.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not At All</th>
<th>To a Moderate Extent</th>
<th>To a Very Great Extent</th>
<th>This Activity Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Progress reports by Branch Chiefs or Assistant Branch Chiefs to Division Director or Assistant Division Director</td>
<td>[1] [2] [3] [4] [5] [6] [7] N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Meetings between Branch Chiefs or Assistant Branch Chiefs and the Division Director or Assistant Division Director</td>
<td>[1] [2] [3] [4] [5] [6] [7] N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Determining whether the Division is &quot;on-schedule&quot; for work that has to be done</td>
<td>[1] [2] [3] [4] [5] [6] [7] N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TIME NOW: __________________________
Q20. One of the problems many organizations face is that they don't control many of the things they are dependent upon, such as other organizations. What other organizations, or other divisions within, is the Division directly dependent on for performing its tasks? (INTERVIEWER WILL RECORD ANSWERS ON HANDOUT) Here is a list of your answers. Please rate the extent to which the is directly dependent upon these other organizations or divisions, and then rate the extent to which each of these is directly dependent upon the Division.

<table>
<thead>
<tr>
<th>Organizations/Divisions</th>
<th>Extent to Which is Dependent Upon This Organization/Division</th>
<th>Extent to Which This Organization/Division is Dependent Upon</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NOT AT ALL</td>
<td>TO A MODERATE EXTENT</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q21. When an organization is dependent upon other organizations in order to do its job, an important issue involves who plays important roles in dealing with these other organizations. Here is a list of different types of people in the Division. Please rate the extent to which each one, in general, plays an important role in dealing with other organizations or divisions upon which the Division is dependent.

Extent to Which this Individual Plays an Important Role in Dealing With Organizations or Other Divisions Upon Which the Division is Dependent

1. Division Director or Assistant Division Director [1] [2] [3] [4] [5] [6] [7]


TIME NOW: ____________________________

Q22. The last question I have deals with the role the various Branch Chiefs or Assistant Branch Chiefs play, if any, in dealing with other organizations or Divisions upon which the Division is dependent. Here is another list of the various twelve branches. Please rate the extent to which their Branch Chiefs or Assistant Branch Chiefs, in general, play an important role in dealing with other organizations or divisions upon which the Division is dependent.
<table>
<thead>
<tr>
<th>Branch</th>
<th>NOT AT ALL</th>
<th>TO A MODERATE EXTENT</th>
<th>TO A GREAT EXTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Architectural Design Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>2. Civil Engineering &amp; Design Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>3. Electrical Engineering &amp; Design Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>4. Mechanical Engineering &amp; Design Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>5. Civil Engineering Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>6. Electrical Engineering Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>7. Mechanical Engineering Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>8. Project</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>9. Project</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>10. Plant Additions Design Project</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>11. Design Project</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
<tr>
<td>12. Inspection &amp; Testing Branch</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
<td>[ ] [ ]</td>
</tr>
</tbody>
</table>

These are all the questions I have. I appreciate the time you were willing to spend with us.
D. STRUCTURED JOB OBSERVATION GUIDE

David A. Nadler
G. Douglas Jenkins, Jr.

In many organizations, an important issue in organizational intervention is the design of the tasks, roles, or jobs which individuals hold. Recently, many organization development efforts have been targeted at the nature of work through programs of "job enrichment", "job enlargement", or job redesign.

The research related to jobs in organizational settings has focused on identifying psychological dimensions of jobs which relate to various outcomes, such as satisfaction, motivation, or job performance. Major advances in this area have been achieved through the work of Rice (1958), Davis (1957), Turner & Lawrence (1965), Hackman & Lawler (1971), and Hackman & Oldham (1975). This research has identified a number of key job dimensions and resultant psychological states.

A major problem, however, in researching the effects of changes in jobs has been to find ways of measuring these job dimensions. Most of the research has relied solely on self-reports of job holders. While these have been adequate for the research to date, self reports have a number of major limitations. First, there are many sources of bias and/or unreliability in self-report measures. These have been noted (Webb, Campbell, Schwartz, & Sechrest, 1966) as part of the general case for the use of multiple methods in measurement. Second, the sole reliance on self-report measures is particularly problematic in the measurement of change in organizations. In the measurement of job characteristics,
for example, it is difficult to determine whether changes in reported job characteristics at a time two measurement point really represent changes in the objective nature of the work, or whether changes represent spillover from a general "halo effect" resulting from changes in other parts of the work environment.

Thus, there was a need for an alternative method of measuring the nature of jobs. Some of the measurement literature suggested structured observation as an appropriate method (Heyns & Lippitt, 1954; Heyns & Zander, 1953; Weick, 1968). A structured observation guide was developed in 1972 as a first attempt to test out the effectiveness of this approach.

The first observation experiment was conducted as part of a larger study of work roles and employee attitudes and behavior by the Survey Research Center. Approximately 750 workers in 5 different organizations were observed using the standardized observation guide. Those same workers also went through a two hour structured interview covering many of the same variables. A group of 36 "non-professional" (undergraduates and first year graduate students) observers were trained for two days. The training program had observers rated several video-taped jobs, using the job observation guide, and then had them receive feedback on their ratings. The observers then observed the subjects in one-hour time blocks. Each subject was observed at least twice, with each observation being conducted by a different observer.

Analyses of the results of this study centered on assessing the stability (repeatability), internal consistency, and across-methods convergence of the measure. The results of these analyses along with a more detailed description of the development of the instrument are reported in Jenkins, Nadler, Lawler, & Cammann (1975). The results generally indicated high levels of stability and internal consistency,
but only moderate levels of convergence between observed and self reported job characteristics.

Based on the results of the first study, changes were made in the observation instrument and the training procedure. Currently, a second observation study is underway, aimed at assessing the effectiveness of the new instrument and training.

The instrument that is attached here is the second version of the observation guide. It is designed to be used by trained observers in a variety of different situations.

REFERENCES


### SCALES: STRUCTURED JOB OBSERVATIONS

The following is a list of the scales for the structured job observation guide. Each scale is listed along with the item numbers from the guide as included here. Item numbers are the last three digits of the keypunch codes, listed to the right of each item on the actual instrument.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variety</td>
<td>142, 157, 168</td>
</tr>
<tr>
<td>Autonomy</td>
<td>143, 161, 162, 167, 169, 177</td>
</tr>
<tr>
<td>Task completion</td>
<td>144, 175</td>
</tr>
<tr>
<td>Task impact</td>
<td>145, 159</td>
</tr>
<tr>
<td>Task feedback</td>
<td>146, 156</td>
</tr>
<tr>
<td>Required skills &amp; abilities</td>
<td>147, 148, 158, 165</td>
</tr>
<tr>
<td>Required interdependence</td>
<td>149, 164, 166</td>
</tr>
<tr>
<td>Required effort</td>
<td>160, 163</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>150, 171, 176, 178</td>
</tr>
<tr>
<td>Conflicting demands</td>
<td>170, 172</td>
</tr>
<tr>
<td>Meaningfulness</td>
<td>173</td>
</tr>
<tr>
<td>Interaction patterns</td>
<td>151-155</td>
</tr>
<tr>
<td>Resources</td>
<td>129, 130, 131, 132, 133, 174</td>
</tr>
<tr>
<td>Comfort</td>
<td>128, 134</td>
</tr>
<tr>
<td>Complexity of work with people</td>
<td>135-141</td>
</tr>
</tbody>
</table>
Introduction

This booklet is provided as a guide and data recording form for the standardized observation of job characteristics. It is designed to be used by observers who have been trained in its use. The guide is set up in the same order as the different timed phases of the observation. For each part of the observation guide, read the instructions and provide the appropriate information.

The major parts of the observation guide are as follows:

<table>
<thead>
<tr>
<th>Part</th>
<th>Activity</th>
<th>Time Allotted for Each Part</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>I</td>
<td>Introducing yourself to the individual being observed and orienting yourself to the job.</td>
<td>5 minutes</td>
</tr>
<tr>
<td>II</td>
<td>General observation</td>
<td>15 minutes</td>
</tr>
<tr>
<td>III</td>
<td>Structured observation of the job</td>
<td>----</td>
</tr>
<tr>
<td>IV</td>
<td>Rating the job</td>
<td>----</td>
</tr>
<tr>
<td>V</td>
<td>Administrative information</td>
<td>----</td>
</tr>
<tr>
<td>VI</td>
<td>Editing (to be done away from the job)</td>
<td>----</td>
</tr>
</tbody>
</table>
USE THIS SPACE FOR NOTES
Part I. Introducing yourself to the individual being observed and orienting yourself to the job. (5 - 15 minutes)

Observers should be wearing their SRC ID badges as they begin observations. The individual will normally have been notified ahead of time that he/she is going to be observed.

Having located the employee, wait until a logical break point in the employee's work and introduce yourself. In your own words, you should convey the following information.

1. Your name and SRC/UM affiliation.
2. What the study is.
3. Reminder of the previous interview.
4. Stressing of confidentiality and anonymity.
5. Brief explanation of what you will be doing.
6. Emphasizing that employee should continue with normal behavior.
7. Identify supervisor and co-workers.
8. Warning of possible interruption in 5-10 minutes.

After having oriented yourself to the job, you may ask the employee one or two questions to clarify what you are observing. In most cases there should be no need to ask any questions. Questions should be asked only in cases where it is unclear what the employee is doing (for example, if employee is working on a material or object or with a machine that is uninterpretable by the observer). Remember, this is not an interview. Only ask those questions that are absolutely essential to understanding what the employee is doing.
Part II. General observation (15 - 45 minutes)

THIS PERIOD SHOULD BE SPENT OBSERVING THE WORKER AND THE JOB TO GET A FEEL FOR THE GENERAL CHARACTERISTICS OF THE JOB AND THE SPECIFIC DEMANDS AND OPPORTUNITIES IT PROVIDES FOR THE WORKER. THE PURPOSE OF THIS PERIOD IS TO GET A GENERAL ORIENTATION TO THE JOB BEFORE MOVING ON TO THE MORE STRUCTURED OBSERVATION AND RATING TASKS.

THIS GENERAL OBSERVATION PERIOD WILL VARY IN LENGTH DEPENDING ON THE TYPE OF JOB BEING OBSERVED. THE PERIOD SHOULD BE NO LESS THAN 15 MINUTES AND NO MORE THAN 45 MINUTES.

Part III. Structured Watching

A. AFTER OBSERVING THE JOB FOR WHAT YOU JUDGE TO BE AN ADEQUATE PERIOD (MINIMUM OF 15 MINUTES), ANSWER EACH OF THE FOLLOWING QUESTIONS, WRITING IN THE APPROPRIATE INFORMATION.

1. Does the employee repeat any activity or group of activities during the normal course of his/her work (are there any identifiable cycles)?

   [1] YES  [2] NO (if no, skip to next question and mark a to d "NA")

   a. Describe the largest identifiable and repeated cycle.

   b. Describe the identifiable sub-parts of the largest cycle.
c. What is the approximate length in time of the largest cycle?
   
   Time

d. How "regular" are the cycles? Describe to what extent they vary in length, type of activities done, sequence of activities, etc.

2. What tools, machinery, or pieces of equipment does the employee work with during the normal course of his/her work activities?

3. Does the employee's normal work involve working with automatic machines or equipment? (exclude hand tools or hand held power equipment, e.g., hand held drills, electric screwdrivers, etc.)

   [1] YES  [2] NO (if no, skip to next question and mark a to d "NA")

   a. Does the pace of the employee's work activities appear to be controlled or constrained by the equipment he/she is working with? If so, how?
b. How much control does the employee seem to have over the activities of the machines or equipment he/she works with? Give examples.

4. Does the employee's normal work involve working with or on some type of material or object -- where a central part of the employee's job involves moving, working on, or is some way changing the material or object?

[1] YES  [2] NO (if no, skip to next question and mark a to c "NA")

a. From where does the employee get his/her "raw materials" (materials or objects to be worked on)?

b. What does the employee actually do with the material or object (what is the transformation process)?

c. When the employee finishes working on the material or object, where does it go or where does he/she take it?

5. Does the employee's normal work involve dealing with other people for work related purposes?

6. What kinds of skills or learning appear to be necessary to perform the job adequately? (skills above and beyond what the average high school graduate could be expected to have coming in off the street)? List the skills.

7. Does the employee relate to, refer to, depend on, or work from any oral or written instructions during the normal course of his/her work activities? (including such things as specification sheets, manuals, blueprints, etc.)?


8. Does the employee record any information (on paper, blackboard, etc.)?

   [1] YES   [2] NO (if yes, indicate what seems to be recorded, how, and where)
### B. For Each of the Following Statements, Check the Number Indicating How Much You Agree with the Statement as a Description of the Employee's Job.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Slightly Disagree</th>
<th>Agree</th>
<th>Slightly Agree</th>
<th>Strongly Agree</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. He/She has adequate access to machinery, tools or other equipment</td>
<td>[1] [2] [3] [4] [5] [6]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>101:33</td>
</tr>
</tbody>
</table>

### C. During the Period of Observation, How Often Would You Say the Individual Engaged in Each of the Following Activities?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequently</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentoring: Dealing with individuals in terms of their total personality in order to advise, counsel, and/or guide them with regard to problems.</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
</tr>
<tr>
<td>Frequently</td>
<td>Occasionally</td>
<td>Never</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td></td>
</tr>
</tbody>
</table>

**Negotiating:** Exchanging ideas, information, and opinions with others to formulate policies and programs and/or arrive jointly at decisions, conclusions, or solutions.

**Instructing:** Teaching subject matter to others, or training others (including animals) through explanation, demonstration, and supervised practice.

**Supervising:** Determining or interpreting work procedures for a group of workers, assigning specific duties to them, maintaining harmonious relations among them, and promoting efficiency.

**Persuading:** Influencing others in favor of a product, service, or point of view.

**Speaking-Signaling:** Talking with and/or signaling people to convey or exchange information.

**Serving:** Attending to the needs or requests of people or the expressed or implicit wishes of people. Immediate response is involved.
Part IV. Rating the Job

WHILE STILL OBSERVING THE JOB, RATE THE JOB BY CHECKING THE APPROPRIATE RESPONSE TO THE ITEMS IN THE FOLLOWING SECTIONS OF THIS BOOKLET.

A. CHECK THE NUMBER ON EACH OF THE FOLLOWING SCALES WHICH MOST APPROPRIATE DESCRIBES THE JOB YOU ARE WATCHING.

1. How much **variety** is there in the job?  
   
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>
   [1] Very little; the individual does pretty much the same things over and over, using the same equipment and procedures almost all the time  
   [2] Moderate variety  
   [3] [4] Very much; the individual does many different things, using a wide variety of equipment and/or procedures

2. How much **autonomy** is there in the job? That is, to what extent does the job permit the individual to decide by **himself/herself** how to go about doing the work?  
   
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>
   [1] Very little, the job gives him/her almost no personal "say" about how and when the work is done  
   [2] Moderate autonomy; many things are standardized and not under his/her control; but he/she can make some decisions about the work  
   [3] [4] Very much; the job gives him/her almost complete responsibility for deciding how and when the work is done
3. How much does the job involve the individual producing an entire product or an entire service?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The job involves doing only a small part of the entire product or service; it is also worked on by others or by automatic equipment and he/she may not see or be aware of much of the work done on the product or service.</td>
<td>The job involves doing a moderate sized &quot;chunk&quot; of the work; while others are involved as well, his/her contribution is significant.</td>
<td>The job involves producing the entire product or service from start to finish; the final outcome of the work is clearly the results of his/her work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. How much does the work that the individual does on his/her job make a visible impact on the materials or objects being worked on or service being rendered?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None at all; it is hard to tell what impact his/her work makes on the object or service.</td>
<td>A moderate amount; his/her work is clearly visible, it makes a noticeable difference in the materials, objects, or service.</td>
<td>A great amount; his/her work clearly visible, it makes a noticeable difference in the materials, objects, or service.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. To what extent does doing the job itself provide the individual with information about his/her work performance? That is, does the actual work itself provide clues about how well he/she is doing--aside from any "feedback" co-workers or supervisors may provide?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little; the job itself is set up so he/she could work forever without finding out how well he/she is doing.</td>
<td>Moderately; sometimes doing the job provides &quot;feedback&quot; to him/her; sometimes it does not.</td>
<td>Very much; the job is set up so that he/she gets almost constant &quot;feedback&quot; as he/she works about how well he/she is doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. How **intellectually demanding** is the job?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all, the job is very routine and does not require any mental effort</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extremely, the job is very non-routine and involves a lot of &quot;thinking-through&quot; or problem solving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. To what extent does the job require the use of **sophisticated or complex skills or knowledge**?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little; no skills are required that the average person would not already have</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate, some skills are required, but they would not be difficult for the average person to obtain in a short time (3 months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very much; highly complex or sophisticated skills are needed to do the job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. To what extent does the job require the individual to work closely with other people (either "clients," or people in related jobs within the organizations)?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little; dealing with other people is not at all necessary in doing the job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately; some dealing with others is necessary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very much; dealing with other people is an absolutely essential and crucial part of doing the job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. How much **uncertainty** is there in the job?


Very little; the individual almost always knows what to expect and is never surprised by something happening unexpectedly on the job

Moderate uncertainty

Very much; the individual is almost never sure what is going to happen; unexpected things frequently happen

---

**B. DURING THE NORMAL WORK ACTIVITIES OF THE INDIVIDUAL, HOW OFTEN DOES THE INDIVIDUAL INTERACT VERBALLY WITH THE FOLLOWING INDIVIDUALS?**

1. His/Her supervisors


2. His/Her co-workers (at the same level of the organization as the individual)


3. His/Her co-workers (at different levels of the organization from the individual)


4. Others (customers, clients, patients)


5. Unidentifiable individuals (can't tell who they are)

C. PLEASE INDICATE HOW TRUE EACH OF THE FOLLOWING STATEMENTS IS AS A DESCRIPTION OF THE JOB YOU ARE OBSERVING.

1. Just doing the work required by the job gives the individual many chances to figure out how well he/she is doing. [1] [2] [3] [4] 101:56

2. The job lets the individual do a variety of different things. [1] [2] [3] [4] 101:57


4. The job allows the individual to make a visible change in the materials worked with or service provided. [1] [2] [3] [4] 101:59


6. The job allows the individual to determine his/her own work pace. [1] [2] [3] [4] 101:61

7. The individual has enough freedom as to how he/she does the work. [1] [2] [3] [4] 101:62

8. The job requires the individual to exert a lot of physical effort. [1] [2] [3] [4] 101:63

9. The individual has to cooperate directly with other people in order to do his/her job. [1] [2] [3] [4] 101:64

10. The job is so simple that virtually anybody could handle it with little or no initial training. [1] [2] [3] [4] 101:65

11. The individual has to depend on the work performed by others in order to get the materials or information he/she needs to do his/her work. [1] [2] [3] [4] 101:66

12. The individual has a lot to say over what happens on his/her job. [1] [2] [3] [4] 101:67
13. The job requires that the individual do the same things over and over. 

14. The job allows the individual to make a lot of decisions on his/her own.

15. On the job other people make conflicting demands of the individual.

D. PLEASE INDICATE HOW MUCH YOU AGREE OR DISAGREE WITH EACH OF THE FOLLOWING STATEMENTS AS A DESCRIPTION OF THE JOB YOU ARE WATCHING.

1. The individual working on the job does tasks which are clearly defined. 

2. The individual working on this job is free from conflicting demands that others may make of him/her.

3. The job is meaningful.

4. The individual working on his/her job frequently had to stop to get things he/she needed and didn't have readily available.

5. On the job, the individual produces a whole product or performs a complete service.

6. The job requires the individual to be prepared to handle surprising or unpredictable situations.
7. The job denies the individual any chance to use his/her personal initiative or discretion at work.

8. The job is one that is highly predictable, and that rarely presents the individual with surprising or unpredictable situations.

Part VI. Administrative Information

ONCE YOU HAVE COMPLETED OBSERVING AND RATING THE JOB, BUT BEFORE LEAVING THE AREA WHERE THE INDIVIDUAL WORKS, FILL OUT THE FOLLOWING INFORMATION.

1. Was the observation completed?

   Reason for incomplete observation: __________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

2. How confident are you of the accuracy of your ratings of this job?


   Not at all confident; I was not able to rate the job observed
   Somewhat confident; my ratings are only partially descriptive of the job I observed
   Moderately confident; my ratings provide a fairly accurate description of the job I observed
   Very confident; my ratings accurately describe the job I observed

   101:77  101:78  101:79  101:80
3. Ask the individual how typical the sequence you observed is of the work which is normally done?

[1] Not at all typical; he/she usually does a very different type of work
[2] Somewhat typical; he/she often does similar work, but this observation period did not completely cover his/her job
[3] Very typical; he/she usually does work of the type observed

4. Was this a validation observation, i.e., did another observer make this observation with you?


5. Ending time of observation: 102:23-26

(Use military time, e.g., 1 p.m. = 1300)
E. BEHAVIORAL-ECONOMIC MEASUREMENT SYSTEM

Philip H. Mirvis and Barry A. Macy

It is self-evident that the measurement and assessment of work organizations requires attention to gross economic outcomes. Such indicators are commonly employed to represent the overall economic effectiveness of an organization and include variables such as the volume of goods or services produced, the cost and price per unit, and the like. For assessment purposes, however, these gross measures are insufficient for understanding sources of change in economic outcomes and provide few clues to the means for improving organizational performance. Accordingly, economic assessment must shift to a more complex level of detail, employing a standard methodology for identifying, defining, and measuring indicators of work performance and determining their economic impact. The purpose of the methodology and set of measures is not to duplicate the normal accounting methods and fiscal evaluations of work organizations, but rather to seek complementary measures that have properties of reliability and validity, pertinence to the evaluation of organizational change, and allow comparisons across different organizations.

Work is well underway in the Quality of Work Research Program refining and field testing such a methodology (Macy and Mirvis, 1975). Figure 1 in Part 1 depicts the conceptual framework relating behavioral-economic variables to perceived organizational characteristics and technological factors. The selection of variables was based upon three criteria (Macy and Mirvis, 1974):

1. The behavior must be defined such that it is significantly affected by the work structure.
2. The behavior must be measurable and convertible to significant costs to the organization.

3. The measures and costs of each behavior must be mutually exclusive.

Consistent with these criteria, precise behavioral definitions were constructed partialling out those behavioral activities unrelated to working conditions such as absence due to jury duty, funerals, maternity, etc. So too, if the behavior is to have a monetary effect, it should produce performance outcomes measurable and costable in economic terms. As a result behaviors such as alcoholism were eliminated which, though potentially related to working conditions, manifest themselves in the costly behaviors of absenteeism and tardiness.

This research has identified four variables that pertain to member participation in the sense of attendance at work (absenteeism, turnover, strikes, and tardiness) and six variables that pertain to role performance while on the job (productivity, product or service quality, grievances, accidents and illnesses, machine repair, and inventory shrinkage and material utilization). It is evident that some of these will apply to all work organizations while others will be significant only to certain kinds of organizations. Table 1 titled "Defining Behavioral Variables," presents the full array of reporting categories required for the ten variables. Case I reflects those categories which prior research and theory indicate might be related to the work structure, Case II reports those which under some circumstances might be related to work structure, and Case III contains those seemingly unrelated. Table 2, "Measuring Behavioral Variables," represents the computational procedures for converting the base data into index variables.
There exists the potential for translating behavioral outcomes into economic terms. Traditional cost accounting reflects the productivity measures in dollars. Mirvis and Macy (in press) review and evaluate the various approaches for determining the actual costs of the other behaviors. Table 3 presents a "Guide to Behavioral Costing." This flow chart illustrates the sequences involved in assigning fixed, variable, and opportunity costs to a behavior. In order to be comprehensive, the results must reflect all costs which prior research suggests might be affected by various working conditions, but in order to avoid duplication, a cost component must not be counted under more than one nonproductive behavior.

In implementing the methodology, existing site data gathering practices are reviewed, modifications and supplements to the present system are proposed, and in-house personnel are then oriented and trained in the use of any new forms and measures. The preliminary experiences indicate this to be practical and often results in unanticipated benefits to the site in terms of increased efficiency in data gathering for internal purposes.

Table 4 reflects incidence and rate of some of these behaviors over a three year period at one research site. Table 5 reflects the costs associated with those behaviors. This particular organization is a manufacturing firm, though the methodology has also been employed in service industries.

The reliability and validity of the behavioral measures are checked via time sampling procedures and self reports. Determining the quality of the cost figures is more problematic, though pooled estimates from supervisors have been used. The final stages of analysis involve
partiallying out the variance in the measures related to technological and market factors and relating the residual to the other variables in the measurement package (i.e., attitudes, reward contingencies, influence, etc.).

REFERENCES


### TABLE I: DEFINING BEHAVIORAL VARIABLES

<table>
<thead>
<tr>
<th>BEHAVIORS</th>
<th>Included Under This Variable</th>
<th>Included Elsewhere</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. ABSENTEEISM</strong> (Each day or lateness beyond 1 hour and 59 minutes equals one incident of absence)</td>
<td>Case 1</td>
<td>Case 2</td>
</tr>
<tr>
<td>A. Absenteeism due to employee sickness or illness.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>1. Less than 3 consecutive days (without a doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Less than 3 consecutive days (with a doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. More than 2 but less than 11 consecutive days (without a doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. More than 2 but less than 11 consecutive days (with a doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. More than 10 consecutive days (with doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Absenteeism due to employee accident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. In plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Out of plant, less than 2 days (no doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Out of plant, less than 2 days (with doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Out of plant, more than 3 days but less than 11 (without doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Out of plant, more than 3 days but less than 11 (with doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Out of plant, more than 10 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Absenteeism due to employee's personal business</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>1. Family sickness or accident (without doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Family sickness or accident (with doctor's statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Miscellaneous (e.g., graduation, doctor's appointment, no baby sitter, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Funeral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Jury Duty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Transportation problems</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>D. Leaves of absences (with official statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. 3 but less than 11 days</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>a. Personal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Medical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Military</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Maternity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. More than 10 days</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>a. Personal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Medical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Military</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Maternity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Absenteeism due to company or union business</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>F. Employee regular or authorized vacation holiday or presanctioned days off</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>G. Lack of work, plant shut-down, involuntary layoff, strike, work stoppages, wildcats, inventory</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H. Absenteeism due to disciplinary layoff</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>1. Less than 11 consecutive days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. More than 10 consecutive days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE I: DEFINING BEHAVIORAL VARIABLES - page 2

<table>
<thead>
<tr>
<th>BEHAVIORS</th>
<th>Included Under This Variable</th>
<th>Included Elsewhere</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Case 1</td>
<td>Case 2</td>
</tr>
</tbody>
</table>

#### 2. ACCIDENTS AND ILLNESSES

**A. OSHA Accidents and Illnesses:**
(Any recordable injury or illness from a work-related accident or from exposure to the work environment which results in medical treatment by physician or registered professional person under standing orders of a physician).

1. OSHA cases resulting in fatalities regardless of time between injury and death, or length of illness.
2. OSHA cases resulting in lost time.
3. OSHA cases resulting in no lost time.
4. Non-fatal case without lost time but resulting in transfer to another job, termination, loss of consciousness or restriction of work or motion.
5. Major revisits resulting from OSHA cases.

**B. Minor Accidents or Illnesses:**
(One-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, etc. which do not ordinarily require professional medical care, i.e., first aid treatment)

1. Abrasions
2. Burns
3. Back pains
4. Contusions
5. Dermatitis
6. Eye injury
7. Foot injury
8. Fracture
9. Hernia
10. Infection
11. Laceration
12. Puncture wound
13. Sprain and strain
14. Other (define)
15. Minor revisits

#### 3. TARDINESS - Employee lateness in terms of clocked in minutes of less than 4 hours per day.

A. Employee clocked in lateness (in minutes and number of incidents) due to transportation problems.

B. Employee clocked in lateness (in minutes and number of incidents due to personal business—doctor's appointments, taking children to school, etc.)

C. Employee lateness (in minutes) in terms of becoming productive (i.e., time between clocking in and beginning work).

D. Employee clocked out early.
### TABLE I: DEFINING BEHAVIORAL VARIABLES - page 3

<table>
<thead>
<tr>
<th>BEHAVIORS</th>
<th>Included Under This Variable</th>
<th>Included Elsewhere</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Case 1</td>
<td>Case 2</td>
</tr>
<tr>
<td>4. TURNOVER - Each quit (voluntary or involuntary) equals 1 incident of turnover</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Voluntary quits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Voluntary quits during disqualification period</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2. Voluntary quits after disqualification period</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B. Involuntary quits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Disqualifications</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2. Retirement</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>a. Voluntary early retirement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Mandatory retirement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Disciplinary layoff (more than 10 days)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4. Disciplinary discharge</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>5. Permanent layoff</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>6. Temporary layoff</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>7. Leaves of absence (more than 10 days with official statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Personal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Medical</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>c. Military</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>d. Maternity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Accidents - Out of Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. GRIEVANCES - Each written grievance is counted at the step where it is settled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. 1st step grievances</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B. 2nd step grievances</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>C. 3rd step grievances</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>D. 4th step grievances</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>E. 5th step grievances</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>F. Arbitration</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>G. Contract agreement or interpretation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Floor disputes, oral warnings, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. STRIKE DAYS LOST - Each day lost due to strike (averaged over a three-year period) - 1 incident of &quot;strike days lost.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Sanctioned Strike</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Strike</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2. Lockout</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B. Unsanctioned Strike</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Work stoppage</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2. Sit downs</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. Walk out</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BEHAVIORS</td>
<td>Included Under This Variable</td>
<td>Case 1</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>7. INVENTORY SHRINKAGE &amp; MATERIAL UTILIZATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. The difference between physical inventory at the end of period A and the end of period B (i.e., to measure or estimate the amount of theft of product, equipment, supplies, etc. in dollars)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>B. Difference between budgeted and/or standard material utilization and actual material utilization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Product rejects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Employee &quot;hoarding&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Other [i.e., specifically define]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. MACHINE REPAIR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. The replacement dollar value of broken or damaged equipment, property, etc.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>B. Non-Preventive maintenance labor dollars spent to measure the amount of damaged or destruction of company property, products, equipment, materials, etc.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C. Product rejects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Preventive maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Other [i.e., specifically define]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. PRODUCT QUALITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. The number and the total dollar volume of products:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Reworked or refinished</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Scraped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Customer returns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Recoveries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Replacement costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Portion of total direct labor variance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Overtime and fringes attributed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Transportation costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Other (specifically define)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. PRODUCTIVITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Labor productivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Output in units, weights, dollars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Man hours worked, man hours paid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Overall productivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Output in units, weights, dollars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Man hours dollars, energy utilization dollars, capital utilization dollars, overhead dollars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Performance against standard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Difference between budgeted and/or standard labor variance and actual labor variance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## TABLE II: MEASURING BEHAVIORAL VARIABLES

### 1. ABSENTEEISM

- **% of Absenteeism = Total Number of Related Absences / Average Full-Year Employment \* Number of Yearly Work Days**

This is a daily rate. (i.e., on the average day during the past 12 months, ___% of the workforce was absent due to sickness, personal business, etc.)

### 2. ACCIDENTS

- **Rate of Accidents = N / MH \* 200,000**

where:  
- N = number of OSHA injuries, illnesses or accidents  
- MH = Total man hours worked by hourly employees during reference year  
- 200,000 = base for 100 full-time equivalent workers (working 40 hours per week for 50 weeks per year)

This is the number of major OSHA accidents per 100 man years worked by hourly employees. A separate measurement should be done for salaried employees.

### 3. TARDINESS

The incidence of tardiness should be reported as a daily rate as well as an average tardiness in minutes.

For computational purposes:

- **Daily Tardiness Rate = Total Number of Incidents of Tardiness / Total Number of Work Days**

- **Average Tardiness = Total Number Minutes Tardy / Total Number Incidents of Tardiness**

This is a daily rate. On the average day during the past 12 months, ___% of the hourly workforce was tardy. The cost figure is based on an average tardiness of ___ minutes.

### 4. TURNOVER

The incidence of turnover should be reported as the average rate of voluntary turnover and the average rate of involuntary turnover per year.

For computational purposes, the following formulas are used:

- **Voluntary Turnover Rate = Total Voluntary Quits Per Year / Average Yearly Employment**

- **Involuntary Turnover Rate = Total Involuntary Quits Per Year / Average Yearly Employment**

Hourly voluntary quits during the 12 months were ___% of average daily hourly employment.  
Hourly non-voluntary separations (i.e., through disqualification, layoff, etc.) during the 12 months were ___% of average daily hourly employment.  
Salaried voluntary quits during the 12 months were ___% of average daily employment (salaried).  
Salaried non-voluntary separations (i.e., through disqualification, layoff, etc.) during the 12 months were ___% of average daily employment (salaried).

### 5. GRIEVANCES

- **% of grievances = Total Number of Grievances / Average Yearly Employment**

Grievances during the 12-month period were ___% of average hourly employment.

### 6. STRIKE DAYS LOST

(Per accounting and industrial relations records)
### TABLE II: MEASURING BEHAVIORAL VARIABLES

#### 7. INVENTORY SHRINKAGE AND MATERIAL UTILIZATION

Unaccounted physical inventory at the end of Period A and the end of Period B

- Reported in units, weights, and dollars
- Material utilization variance in units, weights, or dollars per accounting and production records

#### 8. MACHINE REPAIR

- Non-preventive maintenance variance in hours or dollars per accounting and production records
- Unplanned replacement dollars for broken or damaged equipment, property, etc. per accounting records

#### 9. PRODUCT QUALITY

- Units and cost of rework (product quality, labor variance including overtime, machine utilization) per production and accounting records, plus
- Units and costs of scrap per production and accounting records, minus
- Units and costs of recoveries = Units or costs of product quality

The cost of rejects and scrap, as established by accounting records, was \( \% \) of total period sales. Thus, each 10\( \% \) reduction in this percentage rate has a value of \( \$ \) ______.

#### 10. PRODUCTIVITY

<table>
<thead>
<tr>
<th>A. Labor Productivity</th>
<th>OR</th>
<th>Outputs in dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man hours worked or man hours paid</td>
<td>OR</td>
<td>Man hours worked or man hours paid</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Overall Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output in units, weights OR Output in dollars</td>
</tr>
<tr>
<td>Man hours dollars, energy utilization dollars, capital utilization dollars, overhead dollars</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Performance Against Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference between budgeted and/or standard labor variance and actual labor variance in dollars</td>
</tr>
</tbody>
</table>

(per accounting records)

Production for the 12-month period averaged \( \% \) of standard. Thus, the "productivity" rate is considered to be \( \% \) percentage points, with a reduction of one percentage point being worth \( \$ \) ______.

---

*NOTE:*

1. Measurement of Behavioral Variables should be measured by homogeneous work group or department.
2. A separate measure should be done for salaried and hourly employees.
3. Rates should be reported by definition and by case.
INSTRUCTIONS FOR
GUIDE FOR BEHAVIORAL COSTING

1. Format
   a. Begin with question 1 (Q.1.), follow line based on response (yes (Y) or no (N)) to Q.1.B., Q.2. or COST. Repeat procedure until line reaches COST. If no such line appears, then no employee-controllable cost is identifiable.

2. Absenteeism, Tardiness, Turnover, Accidents, Grievances
   a. Begin with general costs I.- VII.
   b. For additional specific costs see VIII.- XI.

3. Inventory Shrinkage & Material Utilization
   a. See costs XII. - XV.
   b. Where % appears, only a portion of cost is employee-controllable

4. Machine Repair
   a. See costs XVI. - XVII.
   b. Where % appears, only a portion of cost is employee-controllable

5. Production Below Standard
   a. See cost XVIII.
   b. Where % appears, only a portion of cost is employee-controllable
   c. Where %-remaining appears, some portion of cost has already been dissaggregated and assigned to other behaviors such as absenteeism, tardiness, turnover, accidents, grievances.

6. Production Quality Below Standard
   a. See cost XIX.
   b. same as 5b.
   c. same as 5c.

7. Strikes
   a. See costs XX. - XXVII.

---

1 For comments on Guide or relevant papers on costing approach contact Philip H. Mirvis, Institute for Social Research, University of Michigan, P. O. Box 1248, Ann Arbor, Michigan 48106
Behaviors:
Absenteeism
Tardiness
Turnover
Accidents
Grievances

General Costs

I. A. Is a worker missing from station

Does production output change

Is overtime required

Does production quality change

Is overtime required

B. Is replacement from extra-work force

Is replacement adequately trained for job

COST

Station Production
a. regular employee's daily production
b. cost of production machine downtime
c. savings of utilities not paid
d. average hourly profit contribution

Group Production
a. average daily production - day's daily production
b. average hourly profit contribution - day's hourly profit contribution

Overtime salaries, premiums, and fringe benefits

Average product rejects - day's product rejects
a. in-plant rejects reworked
b. in-plant rejects scrapped
c. customer returns reworked
d. customer returns scrapped
e. freight and labor for (c)
f. freight and labor for (d)
g. minus recoveries and sale of scrap
h. customer goodwill lost; % drop in sales caused by rejects

Overtime salaries, premiums, and fringe benefits

Cost per incident of behavior
a. costs of recruiting, acquiring, training, and maintaining extra-work force / number of incidents of behavior

Production and Quality changes
a. regular employees daily production - replacement's daily production: see I.A.
b. regular employees daily rejects - replacement's daily rejects: see I.A.

Costs per incident of behavior
a. costs of recruiting, acquiring, training, and maintaining extra-work force / number of incidents of behavior

Production and Quality changes
a. regular employees daily production - replacement's daily production: see I.A.
b. regular employees daily rejects - replacement's daily rejects: see I.A.

Training costs
a. operator training time: lost daily production of operator and
b. lost profit contribution of operator

c. supervisor training time: lost profit contribution of supervisor
**CONTINUED FROM *a.***

**C.**

<table>
<thead>
<tr>
<th>Is replacement transferred from other job</th>
<th>Is replacement adequately trained for job</th>
<th>(N)</th>
</tr>
</thead>
</table>

**Production and Quality changes**

a. regular employees daily production - replacement's daily production: see I.A.
b. regular employees daily rejects - replacement's daily rejects: see I.A.
c. lost daily production of replacement's regular job: see I.A.
d. lost profit contribution of replacement's regular job: see I.A.

**Salary upgrade costs of replacement**

**II.**

<table>
<thead>
<tr>
<th>Are shipments late</th>
<th>(Y)</th>
</tr>
</thead>
</table>

**Lost shipping premiums or bonuses; payment of forfeits**

**III.**

<table>
<thead>
<tr>
<th>Are staff personnel utilized</th>
<th>(Y)</th>
</tr>
</thead>
</table>

**Yearly costs/incidents of behavior**

a. salary and benefits of employees in personnel, payroll, and other departments maintaining records of behaviors and staffing adjustments and actually involved in replacement process
b. cost of supplies associated with (a)
c. lost profit contribution of employees in (a)

**IV.**

<table>
<thead>
<tr>
<th>Are line personnel utilized</th>
<th>(Y)</th>
</tr>
</thead>
</table>

**Yearly costs/incidents of behavior**

a. salary and benefits of supervisors and employees involved in replacement process
b. cost of supplies associated with (a)
c. lost profit contribution of supervisor and employees in (a)

**V.**

<table>
<thead>
<tr>
<th>Is additional quality inspection needed</th>
<th>(Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are additional inspectors hired</td>
<td>(Y)</td>
</tr>
</tbody>
</table>

**Cost per incident of behavior**

a. costs of recruiting, acquiring, training, and maintaining extra-inspection force/number of incidents of behavior

**Overtime salaries, premiums, and fringe benefits to quality assurance personnel**

**(N)**
VI. Is additional formal training needed (Y) Are additional trainers hired (N)

Is overtime required (Y)

Cost per incident of behavior
a. costs of recruiting, acquiring, training, and maintaining extra-training force/number of incidents of behavior
b. overtime salaries, premiums, and fringe benefits to training personnel

VII. Is missing worker paid (Y)

Additional Specific Costs -

IX. (tardiness only) Is tardy employee returned to job (Y)

Does employee need first aid (Y) Does employer need first aid (Y) Does employer maintain staff and facilities (N)

Does employee pay worker's compensation (Y)

Grievance and arbitration costs
a. staff salaries: first line foreman, supervisor, management, union officials
b. arbitrator's fee
c. arbitration costs: facility, transportation
d. awards

c. Dental costs
a. salaries of nurse and medical personnel
b. medical equipment
c. medication
d. cost of revisits (a-c)

Medical costs
a. uninsured medical costs (fees, medication)
b. transportation to facility
c. OSHA records (salary and supply costs)

X. (accidents only) Does employee need first aid (Y) Does employer maintain staff and facilities (N)

Does employer pay worker's compensation (Y)

XI. (grievance only) Does grievance reach arbitration (Y)

Grievance costs
a. staff salaries: first line foreman, supervisor, management, union officials
b. awards
Behavior
Inventory Shrinkage & Material Utilization

Specific costs:

XII. Is there an unexplained difference between inventory in Period A to Period B

\[(Y)\] Can difference be traced to non-worker controlled causes

\[(N-\%\)] Replacement cost of inventory (to measure the amount of product theft, pilferage, and stock mismanagement)

XIII. Is additional accounting time needed

\[(Y)\] Are additional accountants hired

\[(N)\] Overtime salaries, premiums, and fringe benefits to accounting personnel

XIV. Is there an unexplained difference between material utilization budget and actual in Period A to Period B

\[(Y)\] Can difference be traced to non-worker controlled causes

\[(N-\%\)] Replacement cost of material

XV. Is additional inspection time needed

\[(Y)\] Are additional inspectors hired

\[(N)\] Overtime salaries, premiums, and fringe benefits to inspection personnel

Behavior
Machine Repair

Specific Costs:

XVI. Is there an unexplained difference between non-preventive maintenance budget and actual in Period A to Period B.

\[(Y)\] Can difference be traced to non-worker controlled causes

\[(N-\%\)] Non-preventive maintenance labor dollars

\[(N)\] Replacement cost of equipment

XVII. Is additional repair time needed

\[(Y)\] Are additional repairmen hired

\[(N)\] Overtime salaries, premiums, and fringe benefits to repair personnel
**Behavior**

**Production below standard**

**Specific Costs**

**XVIII.** Is there an unexplained difference between standard or budgeted production and actual in Period A to Period B.

Can difference be traced to non-worker controlled causes

(Y) (N) (Y=A remaining)

Has production loss traced to other behaviors been disaggregated

See I.

Standard or budgeted period production - Actual period production (labor variance)

Lost profit contribution

see also II., VI., XIII.

**Behavior**

**Production Quality below standard**

**Specific Costs**

**XIX.** Is there an unexplained difference between standard or budgeted quality and actual in Period A to Period B.

Can difference be traced to non-worker controlled causes

(Y) (N) (Y=A remaining)

Has quality loss traced to other behaviors been disaggregated

See I.

Standard or budgeted period quality - actual period quality

a. In-plant rejects reworked
b. In-plant rejects scrapped
c. Customer returns reworked
d. Customer returns scrapped
e. Freight and labor for (C)
f. Freight and labor for (D)
g. Minus recoveries and sale of scrap
h. Customer goodwill lost; drop in sales caused by rejects

see also II., V., VI., XIII.

**Behavior:**

**Strikes**

**Specific Costs**

**XX. A.** Is production maintained by non-striking employees from other jobs

(Y) Is replacement adequately trained for job

(N) (N)

Production and Quality changes

a. Regular employees daily production - replacement's daily production: see I.A.
b. Regular employees daily rejects - replacement's daily rejects: see I.A.
c. Lost daily production of replacement's regular job: see I.A.
d. Lost profit contribution of replacement's regular job: see I.A.

Salary up-grade costs of replacement
B. Is production maintained by salaried personnel?

- (Y) Is replacement adequately trained for job?
  - (N)

C. Is production maintained by outside labor force?

- (Y) Is replacement adequately trained for job?
  - (N)
  - (N)

**Production and Quality changes**

- a. regular employees daily production - replacement's daily production: see I.A.
- b. regular employees daily rejects - replacement's daily rejects: see I.A.
- c. lost daily production of replacement's regular job: see I.A.
- d. lost profit contribution of replacement's regular job: see I.A.

**Training costs**

- a. operator training time: lost daily production of operator and
- b. lost profit contribution of operator
- c. supervisor training time: lost profit contribution of supervisor

**Salary up-grade costs of replacement**

**Production and Quality changes**

- a. regular employees daily production - replacement's daily production: see I.A.
- b. regular employees daily rejects - replacement's daily rejects: see I.A.
- c. lost daily production of replacement's regular job: see I.A.
- d. lost profit contribution of replacement's regular job: see I.A.

**Salaried personnel bonus**

**Production and Quality changes**

- a. regular employees daily production - replacement's daily production: see I.A.
- b. regular employees daily rejects - replacement's daily rejects: see I.A.
- c. lost daily production of replacement's regular job: see I.A.
- d. lost profit contribution of replacement's regular job: see I.A.

**Training costs**

- a. operator training time: lost daily production of operator and
- b. lost profit contribution of operator
- c. supervisor training time: lost profit contribution of supervisor

**Salaried personnel bonus**

**Cost per incident of behavior**

- a. costs of recruiting, acquiring, training, and maintaining extra-work force / number of incidents of behavior (strike days lost)

**Production and Quality changes**

- a. regular employees daily production - replacement's daily production: see I.A.
- b. regular employees daily rejects - replacement's daily rejects: see I.A.

**Wages and benefits of replacement**
CONTINUED FROM XXC.

<table>
<thead>
<tr>
<th>D.</th>
<th>Is production moved to non-striking plant</th>
<th>(Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(N)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E.</th>
<th>Is production halted</th>
<th>(Y)</th>
</tr>
</thead>
</table>

XX. Are personal services required inside plant | (Y) |

XXII. Are the employees paid | (N) |

XXIII. Are outside services required | (Y) |

XXIV. Are shipments late | (Y) |

XXV. Is additional accounting time needed | (Y) |

XXVI. Is company property damaged | (Y) |

XXVII. Are sales lost | (Y) |

Costs per incident of behavior
a. costs of recruiting, acquiring, training, and maintaining extra-work force / number of incidents of behavior (strike days lost)

Production and Quality changes
a. regular employees daily production - replacement's daily production: see I.A.
b. regular employees daily rejects - replacement's daily rejects: see I.A.

Training costs
a. operator training time: lost daily production of operator and b. lost profit contribution of operator

c. supervisor training time: lost profit contribution of supervisor

Wages and benefits of replacements

Production and Quality changes
a. see XXA.

Costs of moving production materials and equipment to non-striking plant

Cost of production machine downtime

Cost of unabsorbed overhead (taxes, maintenance, utilities, etc.)

Increased security costs

Costs of maintaining internal live-in facilities

Fringe benefits, expenses

Salary savings

Warehousing costs
a. storage of stockpiled materials and equipment
b. storage of incoming materials and equipment

Shipping costs
a. increased expense of outside trucking and transportation

see II.

see XIII.

see XII, XIV, XVI, XVII.

Increased advertising and public relations expense
Customer goodwill lost: drop in sales caused by strike.
Table IV
Incidents and Rates of Behaviors at XYZ Corporation*
May, 1972 to April, 1975

<table>
<thead>
<tr>
<th>BEHAVIORS</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Period 3**</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSENCE$^1$</td>
<td>Number of Incidents</td>
<td>Rate(%)</td>
<td>Number of Incidents</td>
</tr>
<tr>
<td>OSHA Hourly</td>
<td>4,420</td>
<td>3.3</td>
<td>9,604</td>
</tr>
<tr>
<td>Minor $^2$</td>
<td>251</td>
<td>30.35</td>
<td>316</td>
</tr>
<tr>
<td>Revisits $^2$</td>
<td>3,181</td>
<td>421.80</td>
<td>6,713</td>
</tr>
<tr>
<td>Salary</td>
<td>1,806</td>
<td>216.99</td>
<td>2,455</td>
</tr>
<tr>
<td>OSHA</td>
<td>16</td>
<td>17.56</td>
<td>12</td>
</tr>
<tr>
<td>TARDINESS$^1,3$</td>
<td>48</td>
<td>8.68</td>
<td>--</td>
</tr>
<tr>
<td>GRIEVANCE$^1$</td>
<td>57</td>
<td>10.4</td>
<td>40</td>
</tr>
<tr>
<td>LEAVE DAYS$^1,4$</td>
<td>--</td>
<td>--</td>
<td>12,486</td>
</tr>
</tbody>
</table>

*Incidents and rates changed by a simple constant due to disclosure requirement.
**Actual incidents and rates only for eight month period. Projection for the period is indicated in parentheses.
***Includes layoffs
$^1$All hourly figures
$^2$Hourly and salary employees combined
$^3$This is a daily rate
$^4$Leave days are treated like absences and are computed accordingly
### Table V
Estimated Costs of Behavior at ZYZ Corporation
May 1, 1972 to April 30, 1975

<table>
<thead>
<tr>
<th>Non-Productive Behavior Variables</th>
<th>Estimated Cost Per Incident ($)</th>
<th>Estimated Total Cost ($)</th>
<th>Estimated Cost Per Incident ($)</th>
<th>Estimated Total Cost ($)</th>
<th>Estimated Cost Per Incident ($)</th>
<th>Estimated Total Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSENTEEISM 1, 2</td>
<td>55.36</td>
<td>$286,360</td>
<td>53.15</td>
<td>$510,453</td>
<td>62.49</td>
<td>$889,101</td>
</tr>
<tr>
<td>Leave Days 1</td>
<td></td>
<td></td>
<td>55.64</td>
<td>$887,229</td>
<td>61.64</td>
<td>$950,596</td>
</tr>
<tr>
<td>ACCIDENTS 1, 2</td>
<td></td>
<td></td>
<td>608.84</td>
<td>$229,046</td>
<td>1,016.52</td>
<td>$160,877</td>
</tr>
<tr>
<td>Minor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revists</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TARDINESS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TURNOVER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Voluntary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRIEVANCES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUALITY BELOW STANDARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRODUCTION UNDER STANDARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL COSTS</td>
<td></td>
<td>$1,525,204</td>
<td></td>
<td>$2,645,851</td>
<td></td>
<td>$1,725,110</td>
</tr>
</tbody>
</table>

---

* Rates and costs changed by a simple constant due to disclosure requirements.

** Costs associated with absenteeism, leave days, accidents, turnover, and grievances during the last four months of this period are projections (see Table 1). Product quality and Production Under Standard are actual figures. Therefore, the estimated total cost for period 3 is in parentheses and is composed of eight months of actual plus four months of projections.

*** Lower costs per incident in period 2 due to averaging. Total cost increase reflects the increase in cost per incident of the behaviors after multiplication.

1 Rates and costs for salaried employees are assumed to be the same as those measured and estimated for hourly employees. Cost figures include $41,669 salaried personnel expenses for period 1.

2 Daily absence rate due to sickness (2.72%) and personal business (5.5%) for period 1, and not segmented into absence categories for periods 2 and 3.

3 Leave days were not available during period 1 and only hourly leave days for periods 2 and 3.

4 Cost figures include salaried OSHA accidents (17.56 per 100 man years) at $11,638 for period 1. Costs for salaried personnel were assumed to be the same as those measured and estimated for hourly employees. Costs for revists were assumed to be the same as those for minor accidents.

5 Rates and costs for salaried employees are assumed to be the same as those measured and estimated for hourly employees. Cost figures include $27,641 salaried personnel expenses. The average tardiness time per day was 37 minutes for period 1 and the necessary data was not available for periods 2 and 3.

6 Rates and costs for salaried employees, due to a lack of available figures, are reflected as those estimated for hourly employees. The voluntary turnover rate of salaried personnel was 17.0% and cost figures included $4,829 salaried personnel expenses for period 1.

7 Grievances during period 1 were 10.4% of average hourly employment.

8 The cost of rejects and scrap, as established by plant records, was 3.40% of total sales for period 1. Thus each .0% reduction in this percentage rate has a value of $19,517. Period 2 cost of rejects and scrap was 2.94% of total sales. Period 3 cost of rejects and scrap was 2.1% of total sales.

9 A constant dollar equivalency of $19,517 was utilized in period 2 and 3 to discount inflation due to material increases, price increases, and increased sales volume, etc. In period 2, the estimated cost of quality was $677,915 using $43,028 as the dollar worth for decreasing product rejects by one percent. In period 3, the estimated cost was $613,970 using $29,237 as the dollar worth for decreasing product rejects by one percent.

10 Plant production for period 1 averaged 88% of standard. Thus, the "production under standard" rate is considered to be 12.0 percentage points, with a reduction of one percentage point being worth $22,236.

11 Plant efficiency for periods 2 and 3 was 84.9% and 88.5% respectively of standard. A constant dollar equivalency of $22,236 was used in periods 2 and 3 to discount inflation due to material increases, price increases, and increased sales volume, etc. In period 2 the estimated cost was $400,567 using $26,528 as the dollar worth for an increase of one percent in efficiency. In period 3, the estimated cost was $605,938 using $33,295 as the dollar worth for an increase by one percent in efficiency.

12 Total cost for hourly personnel is $1,470,477; for salaried personnel $64,777 for period 1.

13 The total cost is in terms of standard direct labor dollars. The estimated total cost in real dollar equivalents is $1,689,726 or 10.4% of audit sales in period 1. For period 2 the estimated total cost in real dollar equivalents is $2,600,436 or 7.8% of audit sales. For period 3, the estimated total cost in real dollar equivalents is $2,471,608 or 10.6% of audit sales.

14 For bottom line comparison between periods 1, 2, and 3, subtract leave days from period 2 and 3 and tardiness from period 1. For example, in period 3, the aggregate estimated cost becomes $1,421,186 which is approximately $3,000 lower than the base year costs for period 1.
In comprehensive programs for the measurement and assessment of organizational effectiveness and change, the inclusion of comparable measures of the socio-technological system is essential. The attributes of an organization's technologies, including the technologies for the management of information, have a significant and sometimes predominant impact upon the outcomes for persons associated with the organization, for the organization itself, and for the public. For example, the type of capital equipment used by the organization, the way this machinery is supplied, the nature of work flows, the existence of buffers (such as inventories), the rise of professionalized technologies, and the nature of the information flows in the organization can all have an important influence on the effectiveness and functioning of an organization. Thus, any comparison of different organizations and any discussion of the changes which occur in an organization over time must include some discussion of technology due to its pervasive influence on the organization.

Some have argued that the available technology is invariably the prime cause and explanation of a variety of consequences, including not only the cost and quality of organizational output or key variances, but also organizational forms and processes, interpersonal relations at the workplace, the health of organization members, member satisfaction, and the like (Woodward, 1958, 1965, 1970; Leavitt, 1965; Pondy, 1969;
Aldrich, 1972). Others have argued that the role of technology is so varied that for many organizations the technology of the workplace is better regarded as a consequence rather than a cause of social and organizational processes (Pugh, 1969). There is some validity to both perspectives. The Michigan Assessment Program (MAP) holds that the assessment of organizations, the comparison of organizations, and the assessment of organizational change, requires an operationalization of a series of technologies (rather than "a technology of an organization") and its associated organizational attributes be treated as an integrated whole. Both work flow technologies and organizational properties must be considered in order to understand, plan, control or improve the quality of working life and productivity.

**Approach and Conceptualization**

The approach presented here to measure and assess a series of technologies involves description and assessments at three levels:

a) **Jobs** - i.e., work roles including socio-technical contexts

b) **Workflow** - i.e., the functional unit (e.g., a department) composed of a system of sequentially or otherwise related tasks

c) **Organization** - i.e., as a entire system or sub-system

These socio-technical links of an organization are defined in the following manner:

a) **The job.** The nature of a series of technologies can have an important impact on the people who use it. In order to assess the technologies of the job and its impact on individuals, a number of aspects of jobs are assessed:

- Complexity, including cycle time, number of different tasks, etc.;
- Resources used, including machines, information and people;
- Integration of tasks, including the degree to which the job produces a coherent unit of product or service;
- Uncertainty, including frequency of breakdowns, variability of materials, etc.;
- Interdependence, including the degree to which an individual must depend on others and the nature of the interdependence.

These assessments come largely from self-reports of people who know the jobs and the observations of trained observers and experts.

b) The functional unit. Much of the effectiveness of an organization depends on the way its jobs within a functional unit (e.g., department or work group) are linked into a work flow. A number of measures of the technology at this level are used. These include:

- Interdependence of jobs, including measures of the existence of buffers (such as in-process inventories), the amount of time it takes for a breakdown to cause production to stop, etc.;
- Effectiveness and efficiency of work flow design;
- Flexibility of the technology for major alterations or for variations in product or service demand;
- Complexity and sophistication of the control technology.

These aspects of the technology are sufficiently technical and variable that it is necessary to have expert engineers and other qualified personnel rate them in order to gather assessment data.

c) Organizational System. It is important to measure the series of technologies within an organization as a whole system. Measures at this level include:

- Capital intensity of the technology;
- Rigidity of the technology;
- Complexity of the technology;
- Integration of work flows and product basis;
- Modernity of the technology;
- Effectiveness of the utilization of the technology;
- Adequacy of maintenance schedules.

Again, these measures are collected largely through interviews with experts in the organization and observations by our outside engineering experts.

The above three levels of the socio-technical system can be operationalized in the form of a technological paradigm as shown in Exhibit F.1

The above kinds of measurement has two major aspects:

a) Differing among variables and their attributes due to the level or kind of technology being currently utilized in the organization and looking at comparisons with known technology.

b) Given a particular level or series of technological states, determining whether or not the organization is currently organized to make full use of its technological potential.

Such measures require intimate knowledge of the operations to be performed and may require methods of assessment that are quite different. The first requires expert opinions from professionals thoroughly conversant with the range of technologies which could be employed in a particular situation. No measure except professional opinion currently exists as to whether or not the best technology is being employed. The availability of this information within a particular
organization may be expected to vary with the size and quality of their technical staffs. Frequently, multiple opinions will be desirable. The second measure is an assessment of the extent to which the present technological system is under utilized and does not require extensive knowledge of all technologies that might apply. It does require a comprehensive understanding of the functioning of the workplace (i.e., workflow) and of the potential increases in productivity that could be achieved by a fuller utilization of the potential technological system.

Beyond the higher order abstractions presented in Exhibit F.1, the MAP has identified an "input-throughput-output" paradigm that is applicable to two types of technologies:

a) Core technologies. Those technologies that directly add value to the product or service produced.

b) Supportive technologies. Those technologies that aid the core but do not directly add to the product value.

This distinction between core and supportive technologies is indicated in Exhibit F.2. This exhibit indicates that for any series of technologies, both physical (affecting, materials, substances, etc.) and information (transformation or transmission of information, etc.) assessment is required.

As can be ascertained from viewing Exhibits F.1 and F.2, the MAP assessment methodology aspires to gather measurement data concerning measures of a sufficiently high order of generality and abstraction to allow cross-site comparisons and to measure key variances that are concrete enough to yield credible measures of change in single sites. Specifically, the MAP is working within a hierarchical conception of technological indicators, with generalized, more abstract,
more intersite comparable measures at the top of the paradigm and with many, more concrete and less comparable measures at the bottom. The aspiration is to seek quantitative and replicable methods and instruments for use with the lower-level indicators and rely on expert judgment for the more generalized and inclusive indicators (as well as for the development of concrete measures).

Present Stage of Development

The MAP is currently engaged in two activities: 1) preparing an initial statement of the aspects of technological and information processing systems to be measured and the desired properties of these measurements, and 2) developing and field testing an initial questionnaire (Exhibit F.3), designed to assess the nature and location of workflow malfunctions in a portion of the input-throughput-output paradigm from the perspective of the organization's members. This latter task concentrates on the interaction between the job and functional sub-system levels viewed from the worker's perceptions of the present technological system and its potential. This approach assumes that if a worker is asked to evaluate the present system against an ideal or stated criterion, he or she can provide specific information concerning whether or not the potential of the technological system is being reached. Thus, the worker performs the initial detection function at much less expense than other possible methods of data collection. However, as mentioned earlier, the MAP utilizes a combination of expert opinions, structural and unstructural interviews, key informants, organizational records, observations, and perceptions to measure the series of technological states in an organization.
Future Direction

Presently, work is being done to develop qualitative and quantitative (both abstract and concrete) measures to measure the input-throughput-output paradigm. The initial conceptualization is shown in Exhibit F.4.

From this exhibit, the objectives concerning the measurement of a series of technologies focuses upon four research aims or goals:

Research Goal #1: To describe an organization's technology requires specification of all of its core technologies. For comparative purposes, organizations can be contrasted in terms of the number of core technologies and their level of description. Core technologies might change due to internal and external uncertainties.

Research Goal #2: To describe an organization's technology requires specification of all its supportive technologies. For comparative purposes, organizations could be contrasted in terms of their number of supportive technologies and the ratio of supportive to core technologies.

Research Goal #3: To describe an organization's technology requires the categorization of the core technologies along a number of relevant descriptors and determination if its relationships to similarly described supportive technologies. For comparative purposes, organizations could be contrasted in terms of their types of core and supportive technologies and the type and extent of core-supportive technology interactions.

Research Goal #4: To describe an organization's technology and compare it to others, the methodology must specify key dimensions on which technologies are similar or dissimilar. If only comparing core technologies, supportive technology considerations must be controlled (statistically or through the comparison choice). If supportive technologies are to be compared, the reverse should occur.
References


### Exhibit E.1

**Operationalization of the Technological Paradigm**

<table>
<thead>
<tr>
<th>Socio-Technical System &quot;Level&quot;</th>
<th>IllustrativeMeasures. Three Levels of Abstraction</th>
<th>Data Sources</th>
<th>Dominant Conceptual Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Job (individual or group)</td>
<td>A. Concrete - Task cycle time&lt;br&gt;- Number of tasks&lt;br&gt;- Output&lt;br&gt;- Down time&lt;br&gt;- Errors&lt;br&gt;- Etc.</td>
<td>- Repetitiveness&lt;br&gt;- Skill level requirements&lt;br&gt;- Adequacy of tools, equipment, supplies&lt;br&gt;- Etc.</td>
<td>- Automaticity&lt;br&gt;- Utilization of equipment capacity&lt;br&gt;- Adaptivity&lt;br&gt;- Etc.</td>
</tr>
<tr>
<td>II. FunctionalSub-system (e.g., production department, service unit, etc.)</td>
<td>B. First Order Abstraction - Output&lt;br&gt;- Delay time&lt;br&gt;- Buffer inventory and backlog&lt;br&gt;- Reject, rework&lt;br&gt;- Number of discrete operations, or transactions&lt;br&gt;- Etc.</td>
<td>- Coordination requirements&lt;br&gt;- Schedule and material adaptivity&lt;br&gt;- Interdependence with other units&lt;br&gt;- Etc.</td>
<td>- Modernity&lt;br&gt;- Automaticity&lt;br&gt;- Skill time requirements&lt;br&gt;- Adequacy of feedback&lt;br&gt;- Adequacy of coordination</td>
</tr>
<tr>
<td>III. Total System (subsuming I and II)</td>
<td>C. Higher-Order Abstractions - Output&lt;br&gt;- Unit cost&lt;br&gt;- System capacity&lt;br&gt;- Etc.</td>
<td>- Output variety&lt;br&gt;- Adequacy of sub-system buffering&lt;br&gt;- Budgetary requirements&lt;br&gt;- Etc.</td>
<td>- Modernity&lt;br&gt;- Automaticity&lt;br&gt;- Adaptivity&lt;br&gt;- Range&lt;br&gt;- Time&lt;br&gt;- System type (unit, batch, continuous flow, etc.)&lt;br&gt;- Etc.</td>
</tr>
</tbody>
</table>
EXHIBIT F.2

APPROACH TO THE MEASUREMENT OF A SERIES OF TECHNOLOGIES

TECHNOLOGIES OF AN ORGANIZATION = f (NUMBER OF CORES + SUPPORTIVE TECHNOLOGIES + LEVEL OF INTERACTION BETWEEN CORES)
MICHIGAN ORGANIZATIONAL ASSESSMENT PACKAGE

TECHNICAL SYSTEMS ANALYSIS

QUESTIONNAIRE
INSTRUCTIONS

This part of the questionnaire examines the technological environment in which you work, focusing on the kinds of information and materials you need to do your assignments. Two stages of work are highlighted: (1) the inputs to your assignments such as communications and (2) the assignments you do including the pressures you experience. This section of the questionnaire begins by asking you to think of an ideal work environment and comparing your own situation to that ideal. Any questions that do not apply to your particular job should be indicated under the category “Does Not Apply” and mark number 6.

Note that the scale descriptions may be different in different parts of the questionnaire. For example, they may ask how often you do something, what percentage of the time you do it, or whether you think something is done to a great degree or not at all.

So, be sure to read the scale descriptions before choosing your answers.

THE INPUTS TO YOUR WORK

IDEALLY, BEFORE STARTING A JOB, YOU SHOULD HAVE ALL THE INFORMATION, DRAWINGS, MATERIALS AND INSTRUCTIONS YOU NEED TO DO THE JOB. IF YOU BEGIN AN ASSIGNMENT BEFORE YOU HAVE ALL THAT YOU NEED, YOU MAY NOT BE ABLE TO DO AS GOOD A JOB AS YOU CAN. CONSIDER YOUR PRESENT JOB WITH THIS IN MIND.

63. When you are scheduled to start your assignment, do you have all the verbal and written information you need from your supervisor? ........ [1] [2] [3] [4] [5] [6] 5:66

64. If you do not have all the information, is it readily available if you contact the appropriate person? (NOTE: Please check “Does Not Apply” if you answered question number 63 with a response of Always or Often) ................................................................. [1] [2] [3] [4] [5] [6] 5:67

65. When you do not have all the information needed to start your assignment, how often do you begin anyway? ................................................................. [1] [2] [3] [4] [5] [6] 5:68
66. If you were to start your assignment without all the information you need:
   a. Does the quality of work suffer? ........................................
   b. What percent (%) suffers? ...........................................
   c. Please give specific examples of the work you are referring to.

---

**THE WORK YOU DO**

IN ORDER TO DO CONSISTENTLY GOOD WORK, YOU MUST HAVE SUFFICIENT TRAINING SO THAT YOU KNOW WHAT AND HOW TO DO YOUR JOB. THE TOOLS YOU NEED MUST BE AVAILABLE AND IN GOOD OPERATING CONDITION. IT IS IMPORTANT THAT YOUR WORK IS OF ACCEPTABLE QUALITY. YOUR WORK AREA SHOULD BE FREE OF SAFETY HAZARDS, AND YOU SHOULD HAVE SUFFICIENT TIME IN WHICH TO COMPLETE YOUR ASSIGNMENTS. KEEP THIS IDEAL CONDITION IN MIND AS YOU ANSWER THE QUESTIONS BELOW.

67. Do you have enough training and experience to accomplish your assignments?

   I have adequate training for all my assignments
   I have adequate training for some of my assignments
   I have not been adequately trained for any of my assignments

68. What percent (%) of the assignments you are asked to accomplish do you feel qualified for?
   [NOTE: Please fill in the percent - (0 to 100%)]

   %

69. To what degree could your present job performance be improved by:

   a. More classroom instruction? ........................................
   b. More on-the-job training? ...........................................
   c. Additional work association with an experienced person? ..............

d. Additional observation of other individuals? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5:80

70. Do you attend professional meetings having to do with your area of job assignment? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:12

71. Do you know if the work you accomplish is of acceptable quality? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:13

72. How often do you discuss the details of your job assignment with your supervisor? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:14

73. How often do you get sufficient or clear cut guidance from your supervisor? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:15

74. How often do you provide recommendations to your supervisor concerning your assignments? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:16

75. How often do you discuss the quality of your work with:

a. Those in relevant divisions who use your work? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:17

b. Those in relevant branches who use your work? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:18

c. Those in relevant sections who use your work? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:19
d. Your supervisor? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:20
e. The other relevant individuals who use your work? [ ] [ ] [ ] [ ] [ ] [ ]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6:21

f. Please list any other sources with whom you discuss the quality of your work.
76. When you do work over or modify it, is it because of:

<table>
<thead>
<tr>
<th>Reason</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
<th>Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>f. Other reasons, please list</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

77. Do you have enough time to do your assignments well? (i.e., within an eight hour day)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
<th>Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. You have been asked to meet an unreasonable deadline?</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
</tr>
<tr>
<td>f. You have been asked to do too much work?</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[4]</td>
<td>[5]</td>
<td>[6]</td>
</tr>
<tr>
<td>j. Other reasons, please list</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INSTRUCTIONS: We realize that the following questions are difficult to answer. However, they are very important in order to obtain a measure of the impact of redoing or modifying assignments. This measure will help the economics portion of this meaningful area.

79. Thinking of your work over the past three months, what percentage (%) of your assignments had to be done over or modified? (Please fill in the percent - 0 to 100%)

% of assignments
80. Thinking of your work over the past three months, what percentage (%) of your time was spent without a work assignment? (Please fill in the percent - 0 to 100%)

\[ \text{\% of time without assignments} \]

81. Thinking of your work over the past three months, how many hours did your typical work assignment take to complete? (Please fill in the average number of hours per assignment, 0 to 999 hours; NOTE: If your typical assignment lasts longer than three months, report total hours needed for completion.)

\[ \text{average hours per typical assignment} \]

82. Thinking of your work over the past three months, how many hours did you spend redoing or modifying your typical work assignments? (Please fill in the average number of hours per assignment, 0 to 999 hours; NOTE: If your typical assignment lasts longer than three months, report total hours involved in redoing or modifying work.)

\[ \text{average hours per typical assignment} \]

83. On the average, what percentage (%) of time do you spend during an eight hour day being productive (i.e., a work day could be divided up into the following three components: (a) Meaningful work, (b) Less than meaningful work, and (c) No work at all. Please do not consider coffee breaks and lunch as “No work at all”).

\[ \text{\% Meaningful Work} \]
\[ + \]
\[ \text{\% Less than Meaningful Work} \]
\[ + \]
\[ \text{\% No Work at all} \]

\[ \text{TOTAL = 100\% of an eight hour day} \]
EXHIBIT F.4
VIEW OF MEASURING THE INPUT-THROUGHPUT-OUTPUT PARADIGM

<table>
<thead>
<tr>
<th>Socio-Technical System</th>
<th>Core Technologies</th>
<th>Supportive Technologies</th>
<th>Interaction Between Core--Supportive Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Level</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Dept.-Group Level</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Organizational Level</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
</tbody>
</table>

*NOTE: This simple--complex dimension is a scale from 1 to 7.
The Role and Rationale

In most simple terms, the role of the site historian consists of the observation, recording, and analysis of ongoing activities at a research site, collecting information that cannot be obtained through standardized pre-developed instruments. The site historian would be present in the organization being studied at more or less regular intervals, observing behaviors, activities and events, and obtaining information about the organizational members' reactions concerning important events that occur.

The site observer/historian is particularly important in the assessment of change efforts in organizations. It is only through ongoing observation that the essence of dynamic processes such as change can be captured. Observation can provide data on the critical events of a change program, the timing, sequence and pacing of the interventions and their consequences. The documentation of these changes is vital to arrive at some understanding of the different ways in which organizations may change over time, and the effects of a variety of intervention techniques on different types of systems.

Data collected by observational methods complement data collected by other more standardized methods. Observations can provide information on emerging organizational processes (Walton, 1972), and can be
particularly useful to record occurrences that are not anticipated or routine. Direct observation is not subject to the same biases as self-report data (Richardson, Dohrenweind and Klein, 1965; Heyns and Lippitt, 1954). The richness in this kind of data is helpful in validating and explaining results from other sources, and for developing more refined theories and hypotheses.

The Functions of the Site Observer/Historian:

The functions of the historian will differ depending on the level of involvement decided on by the research coordinators. Investment in the historian role can be located on a continuum ranging from minimum site maintenance, which hardly calls for any real observational activities, to a live-in involvement in the site, in the anthropological tradition. Four basic levels of involvement are to be considered.

<table>
<thead>
<tr>
<th>LEVEL OF RESEARCH INVOLVEMENT</th>
<th>DESCRIPTION AND FUNCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Minimal Site Maintenance Model</td>
<td>At this level of involvement, activities are limited to the barest necessities for the survival of the organization as a research setting: entry into the organization, setting up of contact persons, collecting basic information regarding the site's personnel, structure, tasks and technology, stated organizational rules on language and behavior, and keeping a gross chronology of notable events occurring within the timespan of interest to the research.</td>
</tr>
<tr>
<td>Personnel involved:</td>
<td>Site coordinator</td>
</tr>
<tr>
<td>II. Basic Site Historian Model</td>
<td>Activities at this level will include:</td>
</tr>
<tr>
<td>Personnel Involved:</td>
<td>1. Naturalistic observation - to attend and observe, in an unobtrusive non-participative fashion, key meetings and events in the organization, e.g., normal work activities, meetings of various groups at different levels, and activities related to the change agent's interventions.</td>
</tr>
<tr>
<td>Site Historian and Site Coordinator</td>
<td></td>
</tr>
</tbody>
</table>
III. Intermediate Site Historian Model

Personnel Involved: Site Coordinator and two or more site historians

Site contact: bi-weekly, or weekly

In addition to the relatively unstructured activities already cited, there will be data collected using a more rigid sampling scheme for choosing respondents, and more structured methods of data collection. They may include:

1. **Structured interviews** - aimed at obtaining specific types of information particularly useful at various stages of the change effort, to obtain reactions to and feelings about specific interventions.

2. **Structured job observations** - for information regarding characteristics of jobs and tasks in the organization; particularly useful in cases where the intervention focuses on job design.

3. **Structured observations of meetings** - to obtain quantitative measures of various aspects of meeting behavior.

IV. Live-In Observer Model

Personnel Involved: Site historian

Site contact: daily

The site historian at this level will be constantly at the site, and observing day to day activities in anthropological fashion. The historian at this point will be more of a participant-observer, participating in many of the activities of the organization much as other members do.
Whatever level of involvement is decided on by the researchers for the site historian role, there are certain commonalities in tasks to be done. In order to carry out these functions in the complex organizational setting, it is necessary for the observer/historian to design a plan of activities that will cover the major units and functions of the organization. A basic understanding of the organization's fundamental characteristics can be obtained from observations and inquiries made during the initial exploratory visits to the site. This information can be used to construct a flexible sampling scheme, a listing of relevant categories to be made the foci of observation. The checklist can be used as a planning and feedback device to check on the areas which are relatively saturated and those which are relatively ignored. It can be modified as changes occur in the organization, changing the relative values of aspects of the organization with respect to the change strategy. A sampling design may consist of the major:

- **EVENTS:** Regularly occurring happenings in the organization's life, e.g., meetings, breaks, training sessions, etc.
- **GROUPS:** The relevant divisions in the organization, e.g., departments, teams, levels of hierarchy.
- **ROLES/PEOPLE:** Critical positions in the setting, e.g., supervisors, change agents, personnel manager.
- **CRITICAL SETTINGS:** Particular environments that may differentially affect people's behavior in the organization, e.g., cafeteria, plant floor, front office.
- **THEORETICAL CATEGORIES:** Principal variables to be focused on, including those parallel to the questionnaire categories and those of particular interest to the study.
It will also be necessary to set up a system for recording observations. The value of observational data lies largely in their closeness to actual events and their contexts, and the richness of descriptive detail. The observer's record must discriminate, as much as possible, between "(a) what the field worker believes to be a full and fair account of his observations in the situation, . . . and (b) what he now finds, at the moment of recording, worth adding in the way of personal reflections and research interpretations" (Junker, 1960, p. 14). While the primary audience for the record will be the site observer and the other members of the research team, it should also be theoretically possible for an outsider to examine these records and come to an independent understanding of the development of the organization. The records should enable the outside examiner to find out not only what the observer discovered and concluded, but also how such discoveries and conclusions were made.

Finally, the site observer/historian will have to devise a strategy for the analysis of the observational data collected. In naturalistic, unstructured observations, no clear cut distinction exists between the data collection and analysis phases. The notion of sequential analysis (Becker and Geer, 1960) and Glaser and Strauss's (1968) development of grounded theory call for analysis interwoven with data gathering. To do the running analysis, the observer/historian will have to develop a coding system for classifying the information into analytical categories, and a set of questions which can direct the generation and refinement of hypotheses. More traditional methods of data analysis can be used with the structured and quantified methods.
that may be used by the historian.

THE CURRENT STATE AND FUTURE DEVELOPMENT OF THE SITE OBSERVER/HISTORIAN ROLE

While real limits exist regarding the degree of systematization possible in a role that is largely dependent on the personal characteristics of the observer/historian and the relationships developed on the site, some guidelines can be set regarding the content of observation, the recording format, and the general conduct of the role. Since the specific content of the observations is intentionally kept flexible, it becomes even more essential that some degree of standardization with regard to procedures be developed. Towards this end, the site observer/historian package should contain:

1. A discussion of the issues involved in making the decision regarding level of site historian involvement considered appropriate to the particular study.

2. A discussion of the central issues regarding the definition of the role and its development in the organization, which would differ according to level of involvement desired.

3. A listing and discussion of skills needed by site observer/historians in general and particular ones in relation to site-specific issues.

4. Related to the skills needed, a discussion of the problems to be anticipated in the implementation of the role.

5. Concrete behavioral guidelines that should enable a relatively naive individual to carry out the role.


7. Instrumentation for observer's use when appropriate, e.g., structured observational forms.

8. Possible training approaches for the development of site observers.
Presently, some work has been done on developing the guidelines and instruments for the site historian role. Experience at three research sites, a pharmaceutical laboratory, a bank and an engineering concern, in conjunction with earlier sociological and psychological literature on field and observational methods provide the source for the development of the manuals and procedures.

References


H. THE ASSESSMENT ROLE - GUIDELINES

David N. Berg

The Basic Design - Third Party Assessment

The underlying assumption of the assessment program is that there is a value in having an objective, dispassionate, "external" assessment group evaluate organizations and organizational change. Thus the model being described here is basically a three-party model. The first party is the organization itself and the "Quality of Work Committee" within the organization. It is made up of members from all relevant organizational subgroups (for example, labor and management). This committee represents the interests of the site organization and serves as the primary contact at the site organization throughout the period of the experiment. The second party is the consultant who actually performs the intervention work. The consultant is essentially responsible to the Quality of Work Committee and that group serves as the primary "client" for the consultant team.

The third party in the experiment is the assessment team. While the assessment team is expected to work with the Quality of Work Committee and the Consultant Team, its primary function is to obtain data, using the different measures so as to enable an in depth description and

*This component is still in the early stages of development. This paper presents some initial thoughts on the assessment role.
evaluation of the efforts of the consultant as well as the changes that occur or do not occur in the site organization. The responsibilities of the assessment team include the following:

(1) Major data collection at key points in time (before the consultant begins work, mid-way through the experiment, and after the major intervention work has been completed--envisioned as a period of about 3 years in total)

(2) On-going collection of data--mostly involving description of the activities and events which occur at the site

(3) Integration of data for description--yielding an in-depth case study description of the total intervention

(4) Assessment of results--using the various data for an evaluation of the changes which appear to come about as a result of the intervention.

This type of design, involving three parties, is a relatively unused approach to the measurement and assessment of organizational change. Although such arrangements have been used before (e.g., Seashore, 1975; Marrow, Bowers, & Seashore, 1967; Blake, Mouton, Barnes, & Greiner, 1964; Argyris, 1962), most research on change has been done with the intervenor also being the assessor of the change. In fact, the case has been made (Argyris, 1970) for the advantages of the intervenor and researcher roles being combined in one person or group of persons. On the other hand, there is considerable support for the evolution of three party arrangements (Barnes, 1967). The ISR program has used this approach for the following reasons:
(1) Combination of the assessment and intervention roles can lead to role conflict. Often what is good for research is not necessarily good for the intervention and vice-versa. Given that the primary rewards for the researcher/consultant often lie with doing a good intervention, rather than doing good research on a bad intervention, the research end often loses out.

(2) The combination of research and intervention roles provides a disincentive for the reporting and publication of failures, since the consultant does not gain through the dissemination of information about the inability to bring about change or improvement in organizations. Thus, the research value of the reporting of failures may be lost.

(3) The accurate description of the events and activities which go to make up an intervention program is also an important outcome of research on change. The heavy involvement of the consultant in the intervention often makes it impossible for that individual to provide an accurate, objective, and unbiased picture of what actually occurred. Thus, the third party role facilitates such description.

Given that the underlying purposes for the proposed research is that of the development of instruments to assess organizational changes (a research task) the model used is the three party model so as to insure that the goals of the research effort will be maintained as an important
priority throughout the intervention period.

Although the process presented here is designed to provide accurate and complete data for use in instrument validation and the evaluation of field experiments, it also presents some problems. Such a design involves three sets of needs and goals. Although these needs converge on some issues they diverge on others. One such clash of interests lies at the heart of the third party evaluation design. In the interests of objectivity the split between action and research has been formalized (Barnes, 1967) with the assessment function allocated to one party and the action program conducted by another (in collaboration with the organization). The organization is interested in increasing its effectiveness along a number of economic and/or social dimensions and the consultant is hired to develop and implement a change program to meet these needs. In addition, the consultant's professional future depends on (1) the success of the change program, and (2) the opportunity to develop and improve it as it unfolds in the field. At the same time the assessment team is commissioned to conduct a scientific evaluation of the change program, and is faced with the difficult question of how to conduct a scientific inquiry in an environment which is understandably "hostile" to the rigid demands of the scientific method.

The tension between change and evaluation programs (action and research) is not all pervasive. There are many areas where the two programs have common interests (and, in fact, the goal of applied social science is the development of useful theory and technology), but there are many practical situations in which the three parties have competing interests. The goals of the change program, for example, may require
on-going modifications which may wreak havoc with the experimental design of the assessment team. The challenge for the assessment team is to develop on-site relationships which support and encourage the discussion and resolution of issues involving the research and the tension between action demands and research needs. Only if such relationships can be established will it be possible for the three-party model at any given site to fulfill the needs of all parties involved, including the evaluation team. As Seashore (1975) points out, there are no "rights" or "wrongs" in such field situations, but rather a number of choices and trade-offs which need to be considered and resolved. The need for mutual commitment to these solutions is particularly critical in this design since much of the data collection procedure is on-going, observational and concerned with process as well as outcomes.

The remainder of this paper will present a list of the critical issues involved in establishing, developing and maintaining relationships created in the three-party assessment design. In addition, the final part will outline further research strategies for developing a set of written guidelines for managing and resolving these critical issues. The following list is by no means a complete or comprehensive one. It is a beginning which draws on the program evaluation literature and the experiences of researchers involved in assessment research. As an initial step, this survey of issues serves two purposes. First, it provides a guideline for the development of the three-party model in numerous field sites during the coming months. Second, it serves as an outline for further research on the relationships involved, in third-party evaluation research and for the development of written guidelines to accompany the measurement package and procedures.
Critical Issues

Utilization and publication of findings. Who will use the evaluation findings and for what purposes can have a significant impact on the relationships among the three parties and the degree of cooperation, involvement, tension, defensiveness and validity. Weiss (1972) points out that evaluation research can be conducted in order to increase ongoing program effectiveness or for the purposes of future policy decisions on similar programs. In the former case the research findings are utilized by the program staff, while the latter case involves interpretation of the results by a policy group or funding agency. The issue of who sees the information, when and for what reasons is an important one for all parties involved.

Rodman and Kolodny (1964) raise the issue of publication as one which often causes tension between researchers and organizations in the field. Who has the right to publish the findings of the research and how shall the credit be distributed is an important issue for academicians, and these two authors suggest that it may be an important issue for the other parties involved also, although one that is seldom discussed. Closely tied to the issue of publication rights is the issue of confidentiality, not only of individual responses and communication, but of organization and consultant identity as well.

Evaluation as intervention. In a broad sense, any part of the assessment process which is obtrusive is an intervention in the organization. Even the knowledge that such an assessment is being conducted can have an impact on the behavior and attitudes of individual and groups within the organization. Many such reactive aspects of the
evaluation process are unavoidable, but minimizing the intervention effect of the data collection is a primary concern of the MAP team. The evaluation research strives to assess the impact of a change program on a variety of variables rather than the impact of a change program with accompanying evaluation research.

Organization/Evaluation team relationship. In order to insure the objectivity which is the heart of the three-party design, there must exist a relationship between the organization and the assessment team which is independent of the consultant. This is a crucial element in the research design for two reasons. First, the assessment team must be able to collect information about the organization which is independent of the consultant's sources of bias. Second, the assessment project needs to continue after the change program has been completed.

An issue is how to establish an independent relationship between assessment team and organization which fulfills the needs of both and what are the specific ways in which each party moves toward a workable compromise between action and research.

Consultant/Evaluation team relationship. The relationship between the consultant and the evaluation team is charged with the tension of evaluation and judgment. Since the evaluation team is interested not only in outcome measures but in process descriptions and observations as well, there exists a high level of interdependence between the two parties. The consultant's presence depends on the presence of the assessment team (in terms of funding) and the consultant may also make use of information collected and provided by the evaluation project. The evaluation team, in turn, depends on the consultant for access to the process of the change intervention and any subsequent modifications.
It is in this relationship that the action-research trade-offs of which Seashore (1975) speaks are most relevant and important. Critical decisions must be made in the areas of information access (for each party), communication, on-site observation time, feedback and mutual influence.

The triadic relationship. This relationship involving all three parties is the key to the success or failure of the field project. The process of evaluation is a sensitive one which requires that the parties involved deal with difficult and potentially threatening problems.

1. The first issue is the construction and design of a joint decision-making body where questions can be answered and practical issues resolved.

2. Although the assessment package and the measures which comprise it are essentially the domain of the evaluation staff, they are of concern to all parties involved. Again, if the organization and the consultant are to be involved in and committed to the assessment research, the assessment package must respond to their needs as well. The organization can also provide the assessment team with valuable "inside" information to guide measurement development (Likert and Lippitt, 1953) and the assessment instruments can be modified on this basis to be more empathic and therefore more valid (Alderfer and Brown, 1972). In similar ways the consultant can provide guidance in the areas in which he/she expects to be able to measure change.

3. Data handling and feedback is the third issue of concern to all three parties. What to do with the information collected by evaluators and when are two very important questions. Scrivener (1967) classifies
the two competing data feedback strategies as summative and formative. Summative evaluation involves an assessment of a change program upon completion with one final feedback phase. Formative evaluation provides on-going feedback to the program for modification and improvement. Clearly the approach used here will be neither of these extremes and will strive to minimize the intervention effect of the data collection while addressing the needs of the organization and consultant.

Fault finding. An evaluation team is often perceived as attempting to find fault. One of the purposes of evaluation research is to identify the negative consequences of a change program. But although the perception of an evaluation team as a fault finding group has some basis in fact, it is often distorted by the fears of the parties involved. Both the organization and the consultant may fear the destructive potential of negative feedback or negative results, directed inward to the program or outward to the scientific or professional community.

The evaluation team, too, may operate under the spectre of the evaluation process in a different way. What would it mean for an evaluation team not to find problems, faults and mistakes? The evaluation team may share the belief that only negative information is the province of the research.

Unstable triads. The social psychological literature suggests that triads are an unstable group form. The result of this instability is a breakdown of the triad into a pair and an outsider. The potential for such an alliance formation exists in the triadic relationship discussed above and two of the possible combinations are particularly problematic for the success of the evaluation program.
1. Consultant and organization versus assessment team. The two "action" parties may perceive the evaluation process as interfering with the change program or they may both bear the outcomes of negative feedback. As a result such an alliance, usually covert, could lead to attempts to restrict the assessment team's access to information, meetings or economic measures.

2. Consultant and assessment team versus the organization. The fact that both the consultant and the assessment team are dependent on outside sources for funds could cause a subtle alliance which might influence the data collected particularly if both perceive that the project must be a "success" for their support to continue. In another sense, the informational interdependence provides another compelling reason for the two parties to "work together." Most important is the possibility that because both parties come from outside the organization, with similar academic credentials, they will be perceived as an alliance by the organization.

Over-measurement. The design calls for a great deal of data to be collected. In addition to the evaluation team, the consultants may also want to collect other data. The organization and organization members may become fatigued from the extent and duration of data collection activities and may even begin to feel hostile towards the process.

Under-feedback. The nature of the arrangement mandates that only limited feedback of initial measures be made available to the site organization. This further reduces the payoff to the organization from assessment activities. This also reduces the reciprocity between researchers and subjects in that the researchers may ask for the subject's (organi-
zation member) time and energy and not give anything substantive in
return for three years. In addition, the questions of how much data to
"handback" to the Quality of Work Committee and the consultants, and the
effects of that handback must also be considered.

Integration of data. A vast amount of data is being collected,
utilizing a variety of measures, measuring a range of variables, using
repeated measures, for relatively large samples. The integration of this
data into a usable form for assessment is a large task which will need
to be well-planned in advance.

Assessment team organization

Each site will also have an assessment team which will have the
primary responsibility for making use of the measures at the site.

The key individual is the Site Coordinator who is responsible to
the ISR senior program staff for assessment activities at the site.
The site coordinator is also in an integrator role, coordinating the
work of several different groups. First, the site coordinator will be
assisted by his own site staff which may include an assistant site
coordinator (whose primary function will involve responsibility for on-
going observations and other data collection) and additional observers
as needed. Second, other ISR staff will be called on as needed to per-
form work involving the site. Other professional members will serve in
the role of staff functional specialists providing services in certain
areas (i.e., questionnaire design, setting up behavioral/economic col-
lection systems, etc.). Technical support staff will be responsible
for coordination of instrument production (composition, duplication,
assembling of questionnaire administration materials) and for managing
the computer data files relevant to the site. Finally, clerical staff will provide support as needed for site relevant activities.

Third, the site coordinator will call on and coordinate the activities of specialists from outside of the ISR permanent staff including specialists in certain areas who will be called on site to collect data and/or make observations and other groups, such as the review team.

The site coordinator, then, will be in the role of integrating the work of these different groups, supervising all assessment activities at the site, being responsible for the assessment process at the site organization, and thus assuring that data needed for assessment and validation is collected in an effective manner.

Future Research

If the role the evaluator is to develop as a distinct, viable and separate function in the area of organizational change, a great deal of research is needed on the types of measurement procedures that are necessary, and so is research on the conduct of the field relationships involved. More work needs to be done to outline the effective relationships in such a context. There is a need to expand and develop the list of critical issues discussed above. Our future research will strive to outline the dimensions of each issue and provide theoretical and practical guidelines for resolving them while in the field. With regard to the entire topic of field relationships involved in an assessment program such research would aim to (1) clarify the issues, (2) record relevant experience which illuminates how these issues have been dealt with in similar situations and (3) produce guidelines and strategies which have proven effective.
REFERENCES


Seashore, S. E. The design of action research. In A. W. Clark and P. M. Foster (Eds.), *Experiences in Action Research.* (Forthcoming, 1975).

APPENDIX I
SHORT FORM QUESTIONNAIRES.

In a number of sites, a different type of measurement tool, the short form questionnaire, has been used. Short questionnaires, administered at short intervals (from once a month to one every three months) enable the researcher to "track" the course of an intervention over time. As such it is a valuable tool for assessment.

At the same time, the experience of the staff at SRC with short form questionnaires has led to the conclusion that this instrument should only be used with great caution. The administration of such questionnaires on a regular basis generally tends to result in demands for feedback of the data. With data feedback, the evaluation process and the intervention process become confounded to a very great extent.

These short forms have been used in one case, as an intervention in themselves. Through provision of feedback from the forms on a monthly basis, interventions aimed at improving group effectiveness were conducted. The results of this experiment (see references below) reinforce the notion that such questionnaires should be used very carefully and only in situations where the possible intervention effects from use of the questionnaire would not be problematic.

REFERENCES


MONTHLY ATTITUDES QUESTIONNAIRE

This questionnaire is part of the ongoing study of being conducted by the Institute for Social Research at the University of Michigan. We want to know about changes in your feelings concerning various aspects of your work. This is not a test and there are no right or wrong answers. Please answer the questionnaire frankly and honestly.

At the top of the page is your Michigan Identification Number which is available only to the University of Michigan research team. Your individual responses will be completely confidential. A summary of the plant response will be available at regular intervals.

When you have finished answering the questionnaire, please place it in the envelope, remove your name from the outside and drop it in the locked box in your area. Do not put your name on the questionnaire.

To complete the questionnaire, please choose the one number that best matches the description of how you feel about the statement. For example, if the statement read "I enjoy the weather in North Carolina" and you agreed, you would check the number [6] under agree.

Example:


Date _______________________

(Please write in today's date above)

PLEASE TURN SHEET OVER AND COMPLETE THE OTHER SIDE.
THE FOLLOWING ARE SOME STATEMENTS ABOUT YOU AND YOUR JOB. PLEASE CHECK THE NUMBER THAT INDICATES HOW MUCH YOU AGREE OR DISAGREE WITH EACH STATEMENT. PLEASE READ EACH STATEMENT CAREFULLY.

1. All in all, I am satisfied with my job. .........................
2. _______ rewards those who do their jobs well. ............
3. I get a feeling of personal satisfaction from doing my job well. ..............................................................
4. In the next few months, I am likely to look for a job outside of ______. ....................................................... .
5. The organization cares more about money and machines than people. ..........................................................
6. I don't care what happens to this organization as long as I get a paycheck. ...............................................
7. I feel free to tell people higher up what I really think. ..................................................................................
8. Decisions are made around here without ever asking the people who have to live with them. ..................
9. What happens at ______ is really important to me. .......
10. My supervisor encourages subordinates to participate in important decisions that concern them. ...........
11. All in all, I am satisfied with the quality of my supervision. .................................................................
12. The team concept is working in my department. ......
13. My co-workers are afraid to express their real views. 
14. It is easy to get other people in this department to help me when I need it. ........................................
15. All in all, I am satisfied with my shift hours. ...........
16. I have difficulty getting the tools and supplies I need on my job. ..........................................................
17. My pay is fair considering what other places in this area pay. .................................................................
18. My work group knows exactly what things it has to get done. .................................................................
19. I understand the Problems and Complaints Procedures. .................................................................
20. I feel I can get help for my problems using the Problems and Complaints Procedures. .......................
MONTHLY ATTITUDES FEEDBACK QUESTIONNAIRE

Instructions: This questionnaire is being used to collect data as part of the on-going feedback project of the Institute for Social Research (ISR) at the University of Michigan. Your branch will be receiving a summary of the responses of all the employees in the branch within a few weeks. No individual data will be fed back and your individual responses will be strictly confidential. Please answer each question as frankly and openly as possible. Do not put your name on this questionnaire.

PLEASE FILL IN THE FOLLOWING IDENTIFICATION INFORMATION:

Branch (Cost Center) Number

Your position within the branch:
[1] Teller
[2] Desk
[3] Management (includes Teller-supervisors, Branch Managers, and Assistant Managers)

Are you:
[1] Part time
[2] Full time

Date: Indicate the month that feedback covers (if distributed in first few days of new month, please record the previous month)

The following are some statements about you and your job. Please check the number that indicates how much you agree or disagree with each statement. Please read each statement carefully.

1. It is easy to get other people in this branch to help me when I need it.

2. I get a feeling of personal satisfaction from doing my job well.

3. Decisions in this branch are frequently made without asking the people who have to live with them.

4. The rewards those who do their jobs well.

5. Communication in this branch is good.

6. I look forward to being with the people in my branch most days.

7. In the next few months, I am likely to look for a job outside of this company.

8. What happens in this branch is really important to me.

9. Each person in this branch has a clear idea of the branch's goals and objectives.

10. All in all, I am satisfied with my job.
THE FOLLOWING QUESTIONS ASK ABOUT THE QUALITY OF SUPERVISION IN THIS BRANCH. THE STATEMENTS SHOULD BE THOUGHT OF AS REFERRING TO ALL OF THE PEOPLE WHO SUPERVISE OR DIRECT YOUR WORK (THIS COULD INCLUDE TELLER-SUPERVISORS, PEOPLE FUNCTIONING AS ASSISTANT MANAGERS, AND BRANCH MANAGERS). FOR EACH STATEMENT, CHECK THE NUMBER WHICH INDICATES HOW MUCH YOU AGREE OR DISAGREE WITH THE STATEMENT, KEEPING IN MIND ALL OF THE PEOPLE THAT SUPERVISE YOU.

MY SUPERVISORS . . .

11. . . . help me solve work related problems. .......................... ..........................
12. . . . do a good job of planning and scheduling working in advance. .......................... ..........................
13. . . . let me know how well I am doing. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
14. . . . are concerned about me as an individual. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
15. . . . help subordinates to develop their skills. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
16. . . . encourage subordinates to participate in important decisions that concern them. .......................... ..........................

88:2

PLEASE ANSWER THE FOLLOWING QUESTION, KEEPING IN MIND THE AREA OR PART OF THE BRANCH IN WHICH YOU WORK MOST OF THE TIME:

17. During the past month, the quality of customer service we have given has been:

Poor Average Excellent

88:2

18. PLEASE WRITE IN YOUR UNIVERSITY OF MICHIGAN IDENTIFICATION NUMBER IN THIS SPACE:

88:2

THIS INFORMATION IS IMPORTANT FOR THE SCIENTIFIC WORK IN THIS STUDY. NO ONE IN THE BANK HAS ACCESS TO THE LIST OF I.D. NUMBERS AND NAMES. IF YOU SHOULD MISPLACE YOUR I.D. NUMBER PLEASE CALL THE FOLLOWING PHONE NUMBER (COLLECT) AT THE UNIVERSITY OF MICHIGAN AND IDENTIFY YOURSELF AS A CITY NATIONAL BANK RESPONDENT.

AREA CODE 313 764-9397

19. (This space is for additional questions which may be asked from time to time. If an additional question is attached, write in your answer here; if no question is attached, ignore this space.)
APPENDIX II

QUALITY OF WORK RESEARCH PROGRAM STAFF

Institute for Social Research

August, 1975

Program Direction:
Cortlandt Cammann
Edward E. Lawler III
Stanley E. Seashore

Study Director
Program Director
Program Director

Professional Staff:

David N. Berg
Mark Fichman
Jeanne Herman
G. Douglas Jenkins
John Klesh
Barry A. Macy
Philip Mirvis
Michael Moch
Veronica Nieva
Dennis N. T. Perkins

Assistant Study Director
Assistant Study Director
Study Director
Assistant Study Director
Assistant Study Director
Study Director
Assistant Study Director
Assistant Study Director
Assistant Study Director

Technical Staff:

Marge Black
Susan Campbell
Maureen Compton
Gary Herline
Gayle Mandigo
Marian Mittendorf

Research Associate
Secretary
Research Assistant
Research Associate
Secretary
Secretary

Staff at Cooperating Academic Institutions

Paul S. Goodman
David A. Nadler

Associate Professor
Assistant Professor

Graduate School of Industrial Administration
Carnegie-Mellon University
Graduate School of Business
Columbia University
Quality of Work Research Program Staff (Continued)

Consultants

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Alexander</td>
<td>Partner</td>
<td>Touche Ross and Company</td>
</tr>
<tr>
<td>Walton R. Hancock</td>
<td>Professor</td>
<td>School of Public Health &amp; Department of Industrial and Operations Engineering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The University of Michigan</td>
</tr>
<tr>
<td>William Goodall</td>
<td>Research Assistant</td>
<td>Bureau of Hospital Administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The University of Michigan</td>
</tr>
<tr>
<td>William Wellman</td>
<td>Research Assistant</td>
<td>Bureau of Hospital Administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The University of Michigan</td>
</tr>
<tr>
<td>Richard C. Wilson</td>
<td>Chairman</td>
<td>Department of Industrial and Operations Engineering, The University of Michigan</td>
</tr>
</tbody>
</table>