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THESIS

PERSONALITY CHARACTERISTICS OF EFFECTIVE
ORGANIZATIONAL EFFECTIVENESS CONSULTANTS
IN THE U.S. NAVY

by

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December 1984

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S. N 0102- LF-014-6601

Unclassified

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Personality Characteristics of Effective
Organizational Effectiveness Consultants in the U.S. Navy

by

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MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
December 1984

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ABSTRACT

This study examines the relationship between personality variables and the effectiveness of U.S. Navy Organizational Effectiveness (OE) consultants. The hypothesis of the study is that personality characteristics of effective OE consultants differ significantly from those of less effective consultants. The corollary hypothesis is that consultant knowledge is a factor contributing to consultant effectiveness.

The sample, which consists of 102 U.S. Navy OE consultants from five CONUS based OE Centers, was administered four personality instruments to measure personality variables and a knowledge test. Additionally, a superior and peer rating instrument were administered to measure effectiveness. The research includes a statistical analysis of the data. The consultants are divided into top, middle, and bottom sections based on a combined superior-peer ratings score. T-Tests are conducted on the top and bottom groups to determine the extent to which these groups differ in regard to personality characteristics.

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I. INTRODUCTION

A. BACKGROUND

Although there are many different definitions of Organizational Development (OD), Nadler (1977) summarized its basic characteristics, stating that "OD involves a planned and systematic attempt to change patterns of organizational behavior and includes the application of behavioral science knowledge in a collaborative and participative process by a consultant"[Ref 1:p.6]. This collaborative and participative process takes place between the client and the consultant; without that relationship the OD effort will never be effective. According to Bennis (1969) the competence of the consultant must encompass a wide range of knowledge. In addition to this intellectual grasp, Bennis felt that the effective consultant must also possess the operational and relational skills of listening, observing, identifying, and reporting; ability to form relationships based on trust; and a high degree of flexibility [Ref 2:p.49].

It seems clear that it takes more than just skills and competencies for the consultant to build a good working relationship with a client. Generally it is believed that skills can be honed and competencies can be mastered in a training environment. However, the education of these skills and competencies, required of the effective O.D. consultant,

may not be completely successful without certain prerequisite personality characteristics. How much do the personality characteristics of the consultant affect his learning of the O.D. competencies, and ultimately his effectiveness as a consultant?

The study of personality characteristics and effectiveness was first introduced in the study of leadership rather than in the O.D. area. There were several approaches used in the study of leadership to understand the relationship between personality and effectiveness; these approaches include the trait theory, the situational theory and the behaviorist theory. The follows is a summary of the methods of each theory and some shortcomings associated with each.

1. The Trait Approach

In the late 1920's the trait approach to analyzing effectiveness was introduced. The concept of personality appealed to several early theorists who sought to explain why some people were more effective in exercising leadership. Bowden (1926) equated leadership with strength of personality. He stated, "Indeed, the amount of personality attributed to any individual may not be unfairly estimated by the degree of influence he can exert upon others"[Ref. 3:p.8]. Bingham (1927) defined a leader as a person who possesses the greatest number of desirable traits of personality and character. Tead (1929) regarded the

effective leader as a person who had the proper combination of traits which enable him to induce others to accomplish a given task [Ref 4:p.6]. According to Stogdill (1974) trait advocates primarily used personality tests to measure the characteristics of individuals who reached positions of leadership.

The trait theory of leadership was later seriously challenged. Bird (1940) analyzed studies which considered 79 traits. He found that 65 percent of the traits were mentioned in only a single study. Only four of the traits (extroverted, humor, intelligent, and initiative) appeared in five or more studies [Ref 5:pp.369-395]. Jenkins (1947) reviewed 74 military studies. He found in most that, although leaders tended to show some superiority over followers in at least one of a wide variety of abilities, there was little agreement as to the abilities characterizing effective leaders. Jenkins concluded that leadership is specific to the situation under investigation. [Ref. 6:pp.54-79] Stogdill (1948) reviewed 124 trait studies. He found leaders characterized by several clusters of items that could be classified as capacity, achievement, responsibility, participator, and status. He also found that the traits of leaders tended to differ with the situation. [Ref. 7:pp.35-71] Gouldner (1950) stated that the trait approach failed because the traits were poorly conceived, the measurements were crude and unreliable and

the traits were not only possessed by leaders but by non-leaders as well [Ref. 8:p.14].

A final criticism of the trait approach was that personality theorists had tended to regard leadership as a one-way influence effect. While recognizing that the leader may possess qualities differentiating him from followers, these theorists generally failed to acknowledge the reciprocal and interactive nature of the leadership situation.

2. The Situational Approach

The gradual abandonment of trait approaches in the late 1940's and early 1950's gave way to the contention that leadership is a functional role which serves important purposes for the group. This contention led to the adoption of different methodological approaches to the study of leadership, that is, a study of situation and its impact on the leader.[Ref. 9:p.16].

The situational theory of leadership says that the leader can be differentiated from the non-leader by the given task of the group and the situational characteristics. A situational study by Hollander and Julian in 1969 stated that "...in the situational approach, leadership activities are determined as a function of differential group settings and their demands"[Ref. 10:p.389]. Situational theories tended to support the conclusion that the nature of the tasks performed play an important role in determining who

emerges as the leader. The underlying implication that any member of a group can become a leader as long as favorable conditions prevail has since drawn considerable criticism. [Ref. 11:pp.573-578]

There are a number of limitations to situational theory. Critics say that situational theory presents a one way view of leadership. They contend that the situation appears to be the controlling factor and seemingly "selects" a leader. According to Hollander and Julian (1969), this is too simplistic a view of reality. They explain that the leader and situation are not separate entities but merely represent different components of a continuing multi-directional process of social information and exchange [Ref. 10:p.395].

3. Behavioral Approach

Behavior based studies paralleled the growing interest in situational theories. The following study illustrates the behavioral approach. In July 1971 the Behavior and Systems Research Laboratory (BERD) published a study entitled "Dimensions of Leadership in a Simulated Combat Situation." The objective of the study was to provide "the Army with scientific means to identify officers who have aptitudes and other characteristics to meet the differing demands for success in different kinds of leadership positions" [Ref. 12:p.1].

The research team first set up an officer evaluation center simulation exercise to define the major dimensions of behavior characteristics of effective military leadership. They sampled 4000 lieutenants between 1961 and 1964. The study concluded that the "combat leader is successful primarily by virtue of his forcefulness in command of men and his direction of his team. The noncombat leader relies more on his executive ability, his ability to organize, to plan and to allocate resources" [Ref. 12:p.12].

This contrast between the set of behaviors of the combat leader versus those of the noncombat leader is an example of the behavioral approach to leadership. The behavioral approach indicates that there are a set of behaviors clearly more important to one role than to another. The degree to which the leader has learned these behaviors and can execute them in his job environment will determine his effectiveness.

Behaviorists argue that this theory of leadership is not subject to the inadequacies associated with trait theory. They argue that the shift from personality traits to the study of the social situation (in which the leader functions and the relationship between situation and leader behavior is emphasized) is a move to a more comprehensive and predictive study of leadership.

In conclusion, it is possible to distill most of leadership research into two categories: (1) trait research,

and (2) situational/behavioral research. The first approach emphasizes the discovery of personality traits common to all leaders; the second stresses the study of the interaction between the behavior of leaders and the characteristics of specific situations in which those leaders function. The trait approach tends to ignore the situation in which leadership takes place.[Ref. 4:p.7] The situational/behavioral approach, on the other hand, ignores the influence of individual differences.

In reviewing the literature Fiedler (1971) states that there has been little empirical evidence that leader behavior is related to effectiveness. Fiedler goes on to state that leader behavior does not predict or correlate with effectiveness and that personality attributes may be the factors which interact in determining leadership effectiveness. [Ref. 13:p.42]

4. Effectiveness and Personality in the O.D. Field

In much the same way as leadership researchers have attempted to relate effectiveness and personality characteristics, O.D. consultants have believed that there is a link between effectiveness and personality, however, little empirical research has been done on the question. The McBar (1981) study which attempted to identify the critical knowledge, skills, abilities and personality characteristics required of successful Organizational Effectiveness Staff Officers in the U.S. Army

stated this: "The ultimate relevance of consultants' personality characteristics to predict intervention effectiveness remains to be seen. Additional empirical research on such variables needs to be done to establish their relevance"[Ref. 14:p.10]

What does the research say to that question? Following are a few studies which serve as a starting point for an assessment of the significance of personality characteristics to effective consultanting.

Durlak (1979), using a single instrument, reported that successful consultants have significantly higher levels of empathy, warmth, and genuineness than less successful consultants.[Ref. 15:pp.80-92]

Rodin and Janis, (1979) after interviewing health care practitioners on the question, proposed that an individual who is perceived as likable, benevolent, admirable, and accepting has reference power. The lack of reference power can manifest itself in a lack of ability to influence or persuade a client.[Ref. 16:pp.60-81]

Warrick and Donovan (1980) used a questionnaire and found that OD experts agree that the consultant must be both self-aware and self-disciplined. They also report that successful consultants display a good balance between the rational and the emotional; that is they are objective in evaluating the situation but remain in touch with their own feelings.[Ref. 17:pp.22-25]

An additional factor which showed up in the literature as important to OD consultant effectiveness was knowledge. For example, Dimma (1977) found knowledge to be one of the consultant attributes most valued by top management clients.[Ref. 18:pp.37-49] Turney and Cohen (1978) found that knowledge of specific O.D. theories was particularly useful.[Ref. 19:pp.731-738] Spencer and Cullen (1979) found that lack of "expert power" was not often cited as a cause of consultant ineffectiveness [Ref. 20:p.8]. Effective consultants must have the ability to answer a client's technical questions and explain why they are implementing or recommending specific intervention steps.

In conclusion, there is interest and a limited amount of research on the relationship between consultant effectiveness and personality characteristics. In addition, knowledge appears to be an important factor in consultant effectiveness.

B. PURPOSE

The primary purpose of this thesis is to identify the personality characteristics of Navy OD consultants and determine the relationship between those personality characteristics and consultant effectiveness. The secondary purpose is to examine knowledge as a factor in consultant effectiveness.

Earlier in this chapter reference was made to various studies, conducted both in military and civilian

communities, which sought to establish a relationship between personality and effectiveness. In referring to these studies, McBer states that "there seemed to be some data supporting the influence of a consultant's effectiveness with his personality, however, all these findings were based on a few studies, most of which were methodologically limited." [Ref 14:p. 18]

The current study intends to avoid those methodological limitations. It will attempt to establish a relationship between personality and effectiveness by administering a series of personality instruments, rather than only one, so that the data base for each respondent will be broad. Additionally, all of the instruments but one have an ample bank of validity and reliability data. A test of the participants knowledge of OD consulting technology will also be administered.

The personality profiles derived from the four personality instruments and the knowledge test will be used to predict consultants' peer and superior ratings. This two-pronged approach (peer-superior) to measuring effectiveness should provide a more comprehensive view of consultant effectiveness.

By means of the administration of several reliable personality instruments, a knowledge test, and a two pronged approach to measuring effectiveness these authors hypothesize that a significant relationship will be found

between effectiveness and personality variables, and between effectiveness and knowledge.

C. DESIGN AND ORGANIZATION OF THE THESIS

The introductory chapter of this thesis reviewed the several approaches used in the past to predict effectiveness with personality characteristics.

Chapter II, the literature review, explores what are the relevant personality characteristics and describes how they led to the choice of personality instruments and rating criteria.

Chapter III describes the methodology of this study. The population, research design, and data gathering procedures are explained.

In Chapter IV an analysis of the data is presented. This will include questions of validity, techniques used, and assumptions made. Chapter V draws conclusions and presents recommendations.

II. LITERATURE REVIEW

Chapter two will examine the relationship between consultant effectiveness and personality characteristics in greater detail and draw upon the recent literature on military and civilian consultant effectiveness. The purpose of this chapter is five fold. First, it will provide the reader with a better understanding of the concepts of effectiveness and personality, and argue that the two are related. Second, a list from the research literature of the most prevalent personality characteristics used to describe consultants will be presented. Third, it will outline this study's measurements of consultant effectiveness. Fourth, it will describe and justify the selection of the personality instruments of this study. Fifth, it will describe the knowledge test used in this study.

A. EFFECTIVENESS AND PERSONALITY CHARACTERISTICS

Why have these researchers chosen personality characteristics as the independent variables to be empirically studied rather than competencies? To examine this question let us first compare the definitions of the two concepts, personality characteristic and competency. For the purpose of this report, a competency, or a component of overall competence, is a skill of an individual that underlies effective work performance [Ref.14:p.129]. A

competency is any skill that can be learned. It is a category of usable information organized around a specific content area (for example, knowledge of statistics), but it is a particular kind of knowledge. A person may possess many of these knowledge categories, but by this definition if the skill is not explicitly related to effective performance, it does not qualify as a competency. According to Spencer and Cullen (1978), consultant competencies can be organized into four groups: (1) rapport-building skills; (2) diagnostic skills; (3) influence skills; and (4) administrative/ managerial skills.[Ref. 20:p.6]

In contrast, a personality characteristic is a trait, a consistent way of responding to an equivalent set of stimuli (self-confidence is an example); or it can be a recurrent concern for a goal state or condition which drives, selects, and directs behavior of the individual (for example, the need for affection). Unlike a competency, a personality characteristic cannot be easily learned by an individual.

In recent years concern has been voiced by senior naval officers over the limited contribution OD consultants have made to the Navy's operation. Frequently, the individuals who are assigned to these OD positions lack the personality characteristics, skills or competencies required to be effective OD consultants in the Navy. Although skills and competencies can be obtained through further education and

training, the question has been raised as to whether education and training of OD consultants can be effective without certain prerequisite personality characteristics. It is the discovery of these personality characteristics which is the object of this study.

B. PREVIOUS MILITARY RESEARCH

Two master's theses have been completed at the Naval Postgraduate School on related subject matter. The first (Spurgeon 1978) is titled "An Analysis of Organizational Development Consultant Skill Requirements". The purpose of this study was to provide the U.S. Air Force with a listing of the skills, knowledge, and traits required of an OD consultant [Ref. 21:p.9]. The author reviewed 41 pieces of military and civilian literature, and conducted interviews at a variety of civilian locations and military commands. He utilized the Kolb-Frohman model, developing a listing of skills and personality characteristics for each of its seven phases of consulting.

The second related thesis (Wargo 1983) is entitled "Developing Competencies for Navy Human Resource Management Specialists: A Delphi Approach." The purpose of this study was to determine what skills, competencies, and characteristics were necessary for Navy Human Resource Management (HRM) specialists at various points in their career [Ref. 22:p.10]. The author utilized the Delphi

method to generate a listing of consultant skills, knowledge and personality characteristics.

/ In 1979 the Army Research Institute (ARI) arranged a contract for the Organization Effectiveness Center and School (OECS) at Ft. Ord, California with McBer and Company of Boston. The purpose was to identify the competencies of the Army OE consultant who was considered effective in the field. The McBer study resulted in 130 performance indicators, 33 competencies and 9 competency clusters for Army Organizational Effectiveness Consultants [Ref. 14:p.227].

In 1976 the Navy contracted with McBer and Company to develop competency based Leadership and Management Education and Training (LMET) courses. The sixteen fleet competencies identified by McBer and Company (obtained from approximately 300 behavioral event interviews) address management and leader competencies for Navy personnel up to the grade of O-6.[Ref. 23:pp.80-83] Table 2.1 summarizes the current military literature on consultants' personalality characteristics.

Table 2.1

Previous Military Studies on Consultant Characteristics

<u>Year</u>	<u>Author</u>	<u>Sample size</u>	<u>Respondents</u>	<u>Results</u>
1978	Spurgeon	30	Military Consultants	Empathetic, flexible, self-aware
1981	McBer Study	92	OESO's	Self-confident, influential, flexible, results oriented
1983	Wargo	38	Leading OD Experts	Tolerant of ambiguity, flexible, self-aware, self-confident

C. DISTINCTION BETWEEN THIS RESEARCH AND PREVIOUS MILITARY RESEARCH

This research effort differs from previous military research in several ways. First, it is an attempt to empirically develop a personality characteristic listing by deriving it from practicing Naval OD consultants in the field. Second, this study does not make use of an established model, like the Spurgeon thesis' use of the Kolb-Frohman model. Nor does this study attempt to develop a competency listing using an expert panel as the population base (Wargo thesis). Third, while the McBer study was primarily aimed at extracting the core skills associated with the Navy's Human Resource Management Specialist, this research is solely concerned with the development of a personality characteristics listing and its relationship to the effectiveness of O.D. consultants in the U.S. Navy.

D. CIVILIAN RESEARCH

In the late 1960's when consultants began writing about their theories and experiences in the field of Organizational Development [Ref. 24:pp.23-43], personality characteristics or traits were mentioned as being required of the successful consultant. Prakash (1968) conducted a series of one on one interviews involving 48 OD practitioners and through content analysis of the interviews found that effective consultants could be described as open and perceptive, and having not only interpersonal skills but a basic valuing of others.[Ref. 25:p.14]

Through content analysis of a series of questionnaire responses, Miner (1971) found that effective consultants have a strong need for upward striving and elite associations, as well as an approach motive to be with authorities or superiors.[Ref. 26:pp.367-378] McClelland (1975) stated that having positive expectations for others predicts consultants' success[Ref. 27:p.5].

A recent study by Howe, Howe, and Mindell indicates that the personality characteristics of the effective O.D. consultant may be quite different from those of his client. Howe, Howe and Mindell (1983) administered the Management Values Inventory (MVI) to O.D. consultants and managers to test their differences in self-esteem, tolerance of ambiguity and risk taking. Several statistically significant differences in characteristics were found

between the two groups. O.D. consultants tended to exhibit a higher degree of both risk taking and tolerance for ambiguity. [Ref. 28:pp.203-220] While statistically significant differences were found by the Howe, Howe and Mindell study, others have questioned the reliability of a single form (MVI) in predicting differences. [Ref. 29:p.546]

In contrast to the Howe, Howe and Mindell study, which employed one instrument, the Haseltine (1982) study used two instruments, the Myers-Briggs Type Indicator (MBTI) to measure personality and the Job Satisfaction Questionnaire (JSQ) to measure effectiveness. The data led to the following conclusions: consultants as a group are extroverted (E), sensing (S), thinking (T), and judging (J). There were no statistically significant differences in the relationship between personality type and consultant effectiveness [Ref. 30:p.125].

Slocum (1978) proposes that the dimensions along which the cognitive style of consultants differ will determine the ways in which information is gathered and processed, what information is taken in, and how decisions are reached. In order to examine this hypothesis, Slocum used Jung's theory that individuals can take in data from their environment by either of two modes, sensation or intuition, and make decisions in one of two modes, thinking or feeling. The possible combination of these modes results in four cognitive styles: sensing thinkers, sensing feelers,

intuitive thinkers, and intuitive feelers. Slocum grouped consultants into these four styles and then examined the diagnostic information sought and intervention techniques used. As hypothesized, the different cognitive styles required different diagnostic information and used different change strategies [Ref. 31:p.158]. A further study that their research suggests is an examination of the relationship between cognitive style and consultant effectiveness.

Table 2.2

Previous Civilian Studies on Consultant Characteristics

<u>Year</u>	<u>Author</u>	<u>Sample size</u>	<u>Respondents</u>	<u>Results</u>
1968	Prakesh	48	OD Practitioners in Industry	Open and Perceptive
1971	Miner	204	Management consultants	Upward striving, Elite associations
1978	Slocum	152	Consultants	Cognitive style (sensing thinkers, sensing feelers, intuitive thinkers, intuitive feelers)
1979	Warrick, Donovan	70	Leading OD practitioners	Good rational/emotional balance
1982	Haseltine	45	OD consultants	Extraverted, Sensing, Thinking, and Judging
1983	Howe, Howe and Mindell	50	OD consultants/managers	Risk Taking, Tolerant of ambiguity

The ultimate relevance of consultant personality characteristics in the prediction of effectiveness remains to be seen. This research effort is intended to provide the

empirical research needed to increase our understanding of the relationship between those two variables.

E. ANALYSIS OF CIVILIAN RESEARCH

Few studies were found that systematically assessed the personality characteristics of effective O.D. consultants. Even fewer have empirically identified requisite consultant personality characteristics that predict effective change efforts.

Although the research covers a wide range of approaches (from reviews of the literature to a Delphi survey) the preponderance of attempts to capture consultant personality characteristics has been through the use of researcher designed questionnaires. These questionnaires were then analyzed to produce a single list of characteristics.

While most researchers agree on a limited number of key characteristics (i.e., flexibility and self-awareness), the traits after that break out to a rather sizeable number of diverse personality descriptors ranging from humanistic characteristics to motives to cognitive styles. The reasons for this extensive variation may be more due to the difference in definition these traits assume in the literature, than to any inherent difference in definition.

Although there are significant differences in what the correct list of personality characteristics should be, most authors do agree that a well-formulated trait listing would

be valuable in the selection and development of O.D. professionals.

F. EFFECTIVENESS MEASURES

The two measures of effectiveness that were employed in this research were superior and peer ratings. The following of the strengths and weaknesses of each of these measurements.

1. Superior Rating

Each consultant was rated on a scale of 1 to 5 (five being to a very high degree, one being to a very low degree) in nine areas, which were derived from the McBer study (1979). These areas ranged from functional knowledge to professional self-image. The role of superior rater for each of the consultants was the commander or designated representative within the particular OE Center.

This particular method of measuring effectiveness is used extensively throughout the military in the form of the fitness report for Naval officers and the evaluation report for enlisted members. Obviously, Naval personnel are very familiar with this senior rater method of evaluating effectiveness because both promotions and additional schooling are based in large measure on these measures of effectiveness. While this approach is used throughout the Navy it does have its shortcomings. An obvious weakness is that the performance criteria identified by this method are

subjective judgements by superiors. Thus, the criteria are limited by the individual values, biases and beliefs of the superior. Although the superior rating method offers the advantage of uniformity by providing each consultant within a center with a similar frame of reference from which he or she is judged, it does not provide an objective evaluation. Also superior officers often only have first hand observations of subordinates' behavior on administrative duties not consultant performance. A subordinate's performance on the former could distort the superior's evaluation of the latter.

2. Peer Rating

The second measure of consultant effectiveness used in this research was peer rating. There is evidence in the literature that peer rating is an effective measure of effectiveness in the OD field. Lippert (1981) stated that effectiveness within the O.D. occupation is dependent upon colleague evaluation of technical competence, a significant criterion of individual worth [Ref. 32:p.26]. Lawler (1971) felt that peer ratings were relevant because peers are best situated to evaluate how a consultant performs in terms of the lateral relationships that are developed in working toward organizational goals [Ref. 33:p.372]. In light of this, each consultant was rated by several of his peers using the same form as was used by the consultant's superior. The major weakness of peer rating is the risk

that popularity may cloud objective evaluation of competence.

While both measures of consultant effectiveness, peer and superior ratings, suffer from a particular weaknesses, they are, however, mutually supportive, each filling some of the gaps left by the other. To conclude, the deficiency of superior rating is that it is one person's subjective and fallible opinion, but this is balanced by the breadth of peer rating. Peer rating has been called a popularity contest rather than an evaluation of the individual's competency. However, that evaluation is corrected by the superior rating. The two measures of effectiveness taken together provide a more comprehensive and quantifiable measure of effectiveness than has been used in the past. See Appendix B for a description of the Superior/Peer Rating Form.

G. PERSONALITY INSTRUMENTS

A review of the military and civilian literature generated a list of approximately fifty (50) personality characteristics frequently mentioned by OD authors and consultants in the field. This list is contained in Appendix A.

Next, an instrument search was conducted to identify personality instruments that measured a majority of the personality characteristics contained in Appendix A. Approximately 400 instruments were reviewed for inclusion in

the research project. In order to guide selection of the appropriate instruments, a set of criteria was developed. To be considered as a serious contender for inclusion in this research study, an instrument needed to :

1. Measure personality characteristics mentioned in several other research studies (see Appendix A)
2. Have face validity
3. Be theoretically based
4. Be supported by reliability and validity studies.
5. Be readily available in the general domain for use by responsible researchers.

Of the approximately 400 instruments reviewed, a small number of personality instruments met the criteria. However, due to the time per respondent (approximately 3-3.5 hours) to complete the battery of instruments only four personality instruments were selected and are described below.

1. 16 PF

The Sixteen Personality Factor Questionnaire (16 PF) is based upon the measurement of 16 functionally independent dimensions. These dimensions have been isolated and replicated during more than 30 years of factor-analytic research on normal and clinical groups. Nearly 10 years of empirical research preceded the first commercial publication of the test in 1949. Since that time, five major revisions have been incorporated into the 16 PF.[Ref. 34:p.307]

The experimentally obtained correlations among the 16 scales are generally quite small. The personality

dimensions measured by the 16 PF test are described in Appendix C.

2. FIRO-B

Fundamental Interpersonal Response Orientation Form B, or the FIRO-B, was developed to measure an individual's orientation to other individuals in three major ways: "inclusion", "control" and "openness". For each of these three dimensions, there are two subscales: "express" and "want".

FIRO-B is based on the assumption that all human behavior may be divided into three categories: issues surrounding inclusion, control and openness.

The three dimensions are defined as follows: Inclusion is the need to establish and maintain a satisfactory relationship with people in terms of interaction and association [Ref. 35:p.214]

Each individual is assumed, to a certain degree, to want to belong to a group. At the same time he is also trying to maintain a degree of privacy. Inclusion then has to do with the degree of interaction with people, with attention, acknowledgement, recognition, and participation.

Control is the need to establish and maintain a satisfactory relationship with people with respect to influence and power. Control refers to the decision making process between people. [Ref. 35:p.214]

Every individual has a desire to control his environment to some degree, so that it can be predictable for him. Ordinarily, this involves controlling other people. This need for control varies from those who want to fully control their environment, to those who are indifferent to control no matter how appropriate controlling others would be.

Control is therefore transmitted by behavior involving influence, leadership, power, coercion, high achievement, intellectual superiority and independence.

Openness is the need to establish and maintain a satisfactory relationship with others in terms of love and affection [Ref. 35:p.214].

Essentially, openness is a relationship between two people. At one extreme, some individuals like intimate, personal relationships with each individual they meet. At the other extreme, are those who like their personal relationships to be impersonal and distant, perhaps friendly, but not close and intimate.

Openness is witnessed in situations of love, emotional closeness, personal confidences and intimacy. See Appendix D for the FIRO-B interpretation of summary scores.

3. MBTI

The Myers-Briggs Type Indicator (MBTI), is based upon a modification of the Jungian theory of type. It was originally developed more than 20 years ago and since then

has undergone several revisions; an unusually large body of reliability and validity data is available for the instrument.

The available data suggests that the MBTI has a great potential utility for research in the area of personality types and characteristics.

The four dimensions measured by the MBTI are: Judgement-Perception (JP), coming to conclusions about issues versus developing awareness of issues; Thinking-Feeling (TF), arriving at judgements by impersonal and logical versus subjective processes; Sensation-Intuition (SN), perceiving directly through the five senses or indirectly by way of the unconscious; and Extraversion-Introversion (EI), orienting toward the outer world of people and things versus the inner world of concepts and ideas. [Ref. 36:p.6] Appendix E contains a brief sketch of the sixteen types as identified by the MBTI.[Ref. 36:pp.19-20]

4. Personalysis

The basic concepts of Personalysis were conceived by James R. Noland in 1969 when he was on the faculty of the College of Business Administration, University of Houston. According to Noland, "...it became apparent that some of our better students became mediocre managers after graduation, while some of our mediocre students tended to be more highly regarded as managers." [Ref. 37:p.1] As a result Noland

conducted an extensive literature search in an attempt to ferret out the characteristics of successful managers. His findings were divided into seven subject areas as follows: how managers set goals, relate to peers, deal with authority, plan, organize, make and implement decisions, and how they control and revise a program of action once it is under way. Over a period of six years propositions were developed from the seven subject areas and combined with a series of scales dealing with individual differences and levels of stress.

In developing the scales for individual differences and stress levels, Noland used Max Weber's methodological process based upon building ideal prototypes. The basic model used Jung's concepts of extraversion-introversion; Ralph Linton's focus on personality and culture; and the writings of Kingsley Davis which dealt with the nature of the individual and his society, and how forms of interaction bring about changes using equilibrium theory.

These concepts were arranged along a continuum and placed in a color-coded matrix which generated the following model:

SHORT TIME			
RED	Extraversion	T	Extraversion
	Action (energy)		Action (energy)
	Convergence		Divergent YELLOW
	Individualism		Conformity
LONG TIME			
GREEN	Conformity		Individualism
	Convergence		Divergent
	Information		Information BLUE
	Introversion	I	Introversion

These were correlated with Transactional Analysis nomenclature; Adult, Parent, Child, Negative Parent, and Negative Child.

The questionnaire uses words and verbal phrases to structure free association and according to Noland allows the respondent to pull answers from both left and right hemispheres of the brain.

Currently some 200 companies, including a number of Fortune 500 companies, are using Personalalysis. This is in keeping with the purpose of Personalalysis, which is to help companies more effectively utilize their human resources.[Ref 37:p.3] See Appendix F for a description of the Personalalysis key.

H. KNOWLEDGE TEST

The knowledge test employed for this research project was the Assessment Questionnaire For Knowledge and Understanding of O.D. by W. Warner Burke (See Appendix G). This 50 question, multiple choice instrument covers a wide spectrum of current OD technology.

The purpose of this questionnaire, according to Burke, is to provide a medium whereby O.D. practitioners can test themselves. That is, by answering the questionnaire they can determine their level of knowledge and understanding of O.D. To facilitate this assessment process, Burke formulated questions based on five areas:

- * General Knowledge
- * Principles of Change
- * Theory and Research
- * Principles of Practice
- * Values [Ref. 38:p.3]

To construct the questionnaire, Burke first administered a series of questionnaires to his graduate O.D. course at Columbia University. After revising the questionnaire, Burke selected a population of 98 individuals whom he considered to be the most qualified O.D. consultants practicing in the field. For validation purposes Burke decided that in order for any item to remain in the final version, 80% of the responding consultant sample had to agree on the same answer.

The limitations of the W. Warner Burke questionnaire are as follows. First, according to Burke, the questionnaire was validated with a consultant sample consisting predominantly of Americans; thereby limiting its international applicability [Ref. 38:p.3]. Second, the consultant sample was selected solely by Burke and

therefore, was subject to his personal biases. Lastly, Burke made the final choice of questions, making the content of the questionnaire a reflection of what he considers important. See Appendix G for a copy of W. Warner Burke's Knowledge Test.

Additional criticisms are that the instrument only tests a consultant's knowledge, not his competency. Thus a consultant could be highly knowledgeable, and yet be unable to implement his knowledge effectively (the definition of competency). Secondly, the respondent who does not test well may do poorly, yet be highly competent.

In summary, the use of a knowledge test and four personality instruments to measure consultant knowledge and personality, combined with the use of two measures of effectiveness (peer-superior) should result in the following methodological advantages:

- 1) The procedure involves multiple effectiveness ratings of individual consultants which increases the reliability and validity of those ratings.
- 2) The procedure identifies the personality characteristics of a consultant by means of four personality instruments and a knowledge test rather than any single instrument.
- 3) The four personality instruments provide the researcher with built-in flexibility, adding additional characteristics, which may be relevant but may have been omitted during the development of the characteristics list, Appendix A.
- 4) The independent variables include not only personality characteristics but also knowledge providing a broader base from which to predict effectiveness.

Chapter III Methodology, will explain the research design. In addition, the manner in which the data was generated will be described, from inception to final product.

III. METHODOLOGY

A. OVERALL DESIGN

The objective of the research project was to examine the relationship between personality characteristics and effectiveness of O.D. consultants. This objective was approached systematically in five phases. The first two phases, review of the literature and the selection of instruments, including effectiveness measures, are discussed in the previous chapter. Phase three concentrated on choosing the sample; during phase four data was collected; phase five focused on data analysis.

The literature review helped to develop a list of personality characteristics that are exhibited by effective O.D. consultants. Based on this listing, an exhaustive instrument search was conducted to surface instruments that would measure the presence and strength of those personality characteristics.

B. CHOOSING THE SAMPLE

The decision was made to gather data on members of the Navy providing Organizational Effectiveness (O.E.) consulting services to operational commanders. The Navy's O.E. system has twelve O.E. centers, five of which are located outside the continental United States. Travel funds and time were limiting constraints in selecting the sample.

The ultimate decision was based on obtaining a sample size of at least 100 active consultants.

Next, the commanders of the Organizational Effectiveness System Atlantic and Pacific (COMOESYSLANT and COMOESYSPAC) were informed of the intended research. Both commanders were interested and gave their approval to contact the various O.E. centers under their leadership. Then, commanding officers of five O.E. centers, two on the east coast and three of the west coast, were contacted. From these five centers a sample size of 102 subjects was obtained.

C. SUBJECTS

Of the 102 subjects 83% were male and 17% were female. The average age of subjects was 36 years with a range of 25 to 50. All individuals sampled had finished high school, 36% had some college, 17% had bachelor's degrees, 30% had graduate degrees. The sample included 64 enlisted members from E-5 to E-9, 35 officers from O-3 to O-6, and three GS-12's. The average time commissioned service was 12 years for officers, with an average time in service of 12.5 years for enlisted. The source of commission was 25 % R.O.T.C., 40% O.C.S., 14% Naval Academy, 3% direct commission and 18% other. Of the enlisted, 88% were organizational effectiveness specialists and 12% were equal opportunity specialists, with an average time of 2.2 years assigned to a billet requiring their specialty and an average time in

present grade of 3.6 years. Table 1 through Table 4 in Appendix H present this data.

D. DATA GATHERING

The researchers traveled to each of the five Organizational Effectiveness Centers and conducted a face to face briefing prior to administering the instruments. This was done, rather than mailing the instruments, for two reasons. First, maximum participation was desired. It was believed that the entire package of instruments (four personality surveys, two measures of effectiveness, a knowledge test and a demographic survey) would appear too time consuming for the subjects to complete if received by mail, and therefore, participation would be reduced. Second, a face to face briefing was desirable because the subjects might have felt the data being collected was too personal to be handled by mail. It was also felt that each participant should be personally informed about how the data was going to be used, and how anonymity would be preserved. Finally subjects' commitment to the research project would be increased by face-to-face briefings, which would involve relationship building with the researchers. Thus, it was believed the validity of the data would be increased with face to face administration.

After the data was collected, three of the personality instruments, the knowledge test, and the two measures of effectiveness were manually scored. Personalysis was scored

by Management Technologies, Inc., the sole distributor of the instrument. Additionally, each subject had between two and thirteen peer ratings, with an average of four per subject. These ratings were averaged to give each subject a single peer rating score. The average peer rating was 30.4, with a standard deviation of 6.4. Finally, the results from each personality instrument, effectiveness measure, knowledge test and demographics were coded and entered into a single computer data file.

E. DATA ANALYSIS

The following descriptive statistics were computed for each variable:

1. Frequency Distribution
2. Mean
3. Median
4. Mode
5. Variance
6. Standard Deviation

From this information the researchers were able to obtain a grasp of the type and breadth of the data gathered.

Next, the researchers wanted to know the strength of relationship between the two effectiveness measures. To accomplish this, a Pearson correlation coefficient was computed. It was found that the peer and superior effectiveness measures had a strong correlation (.6006, $n=95$, $p=0.000$). However, even though this is statistically

significant, the amount of variance accounted for in one measure by the other (r^2) is only 36 percent. This means that 64 percent of the variance in each measure was unexplained by the other. This was too large to justify combining the two measures into one effectiveness criteria in regression equations. Therefore, each dependent variable (Peer rating and Superior rating) was used separately.

Stepwise multiple regressions were then computed to determine the degree to which effectiveness could be predicted from the various personality characteristics. Multiple regressions were used to isolate the variables that contributed the most to effectiveness.

Regressions were performed separately for each personality instrument so that the relative predictive ability of each instrument could be compared. Next, the most predictive dimensions within an instrument were determined. It was only then that the Knowledge Test scores were included in the regression equation with the most predictive personality characteristics, so as to examine the relative contribution of personality characteristics and knowledge to peer and to superior ratings.

Next, peer and superior ratings were averaged to form a single effectiveness measure. This was done so that the sample could be divided into three categories: most effective, moderately effective, and least effective consultants. T-Tests were then computed to test whether or

not there were significant differences between knowledge, personality scores and two of the groups of consultants (most and least effective).

Finally, as a side issue, the researchers tested whether there was a relationship between the ratings that superiors gave their subordinates, and the similarities between superior and subordinate personalities. This was done to examine the hypothesis that there is no significant correlation between a superior's rating of a subordinate's effectiveness and the similarity or dissimilarity of their personalities. A difference score was computed between the superior's and subordinate's personality characteristics. This was correlated with the individual's rating by his superior. A strong positive correlation would mean that superiors rated subordinates lower if their personalities were very different. Conversely, a strong negative correlation would mean that superiors rated subordinates higher if their personalities were very similar. Finally, a low correlation would mean that there is no relationship between superiors' rating of subordinates' effectiveness and the similarity or dissimilarity of their personalities.

IV. RESULTS

This chapter reports the results of the research study that was conducted. It will report: (1) the regression results with peer rating as the measure of effectiveness, (2) the regression results with superior ratings as the measure of effectiveness, (3) the results of the T-tests between the most effective and least effective consultants, (4) the correlation between superiors' ratings of subordinates and the similarities/dissimilarities of their personality characteristics.

A. REGRESSION RESULTS

1. Peer-Rating As The Measure Of Effectiveness

Table 1 in Appendix I reports the stepwise multiple regression results when the four personality instruments were used separately to predict peer rating effectiveness. A review of this table reveals that 16PF was the instrument that best predicted peer rating effectiveness. 16PF predicted peer rating with a multiple correlation of .567 which accounts for 32 percent of the variance associated with peer rating.

Table 2 in Appendix I reports the ten variables from the four personality instruments which were the best predictors of peer rating. These ten characteristics along with the knowledge test scores were then used to determine

the final prediction equation. The results can be found in Table 3. With the knowledge test added to the list of independent variables, the multiple correlation coefficient increased to .709, accounting for 50 percent of the variance associated with peer ratings.

The eleven most predictive variables associated with peer ratings are presented in Table 4.1. Each variable is listed in the order it entered the regression equation, which indicates the order in which the variables contribute to prediction.

Table 4.1

Eleven Most Predictive Variables Of Peer Rating

<u>Variable</u>	<u>Instrument</u>
Knowledge	Knowledge Test
Q4 (Relaxed vs. Tense)	16PF
L (Trusting vs. Suspicious)	16PF
M (Practical vs. Imaginative)	16PF
Yellow Child	Personalysis
Yellow Parent	Personalysis
Yellow Adult	Personalysis
EI (Extrovert vs. Introvert)	Myers-Briggs
Blue Parent	Personalysis
SN (Sensing vs. Intuition)	Myers-Briggs
H (Shy vs. Bold)	16PF

2. Superior Rating As The Measure Of Effectiveness

Table 4 in Appendix I reports the stepwise multiple regression results when the four personality instruments were used separately to predict the effectiveness rating by superiors. A review of this table reveals that Personalysis was the instrument that best predicted superior rating effectiveness, with a multiple correlation coefficient of

.402, accounting for 16 percent of the variance associated with superior ratings.

Table 5 in Appendix I reports the ten personality characteristics from the four personality instruments which were the best predictors of superior rating. These ten variables along with the Knowledge Test scores were used in a stepwise multiple regression in order to determine the final prediction equation. The results of this regression can be found in Table 6 of Appendix I. With knowledge added to the list of independent variables, the multiple correlation coefficient increased to .550, accounting for 30 percent of the variance associated with superior ratings.

In summary, the ten most predictive variables associated with superior rating effectiveness are presented in Table 4.2. Each of these variables is listed in the order it was entered into the regression equation.

Table 4.2

Ten Most Predictive Variables Of Superior Rating

<u>Variable</u>	<u>Instrument</u>
Knowledge	Knowledge Test
SN (Sensing vs. Intuition)	Myers-Briggs
Yellow Parent	Personalanalysis
JP (Judging vs. Perception)	Myers-Briggs
Blue Parent	Personalanalysis
L (Trusting vs. Suspicious)	16PF
Green Parent	Personalanalysis
B (Concrete Thinking vs. Abstract Thinking)	16PF
M (Practical vs. Imaginative)	16PF
Yellow Child	Personalanalysis

B. T-TEST RESULTS

The T-test compares the mean scores of two different groups of subjects. In this study, the two different groups of subjects are the most effective consultants and the least effective consultants. Each group's mean score for the most predictive variables identified by the regression analysis was compared.

To determine the two groups, the peer rating and superior rating scores were averaged to give one effectiveness measure for each subject. This average was computed because peer and superior rating are highly correlated (.6006) and it increases the reliability of the decision regarding which consultant are in the highly effective and least effective groups.

The mean for this single effectiveness score was 29.9, with a standard deviation of 6.1, a low total score of 18, and a High total score of 43 out of a maximum of 45. Next, natural breaks in the distribution were sought. Group 1, the most effective consultants, consisted of 22 subjects with a score greater than 35. Group 2, the least effective consultants, consisted of 26 subjects with a score less than 26. Table 7 of Appendix I reveals the results of these T-tests.

A review of Table 7 reveals that there were a total of 14 variables that were most predictive of peer and superior ratings. There were significant differences between the two

groups of consultants for nine of the 14 variables. The nine variables with significant differences are:

1. Knowledge - The most effective consultants scored an average of 69.8 percent of the Knowledge Test, while the least effective consultants scored 55.8 percent.
2. Yellow Parent - The most effective consultants had a greater amount of Yellow Parent characteristics. (See Appendix F for more details) (Personalysis)
3. Blue Parent - The most effective consultants had a greater amount of Blue Parent characteristics. (See Appendix F for more details) (Personalysis)
4. Green Parent - The most effective consultants had less green parent characteristics. (See Appendix F for more details) (Personalysis)
5. SN (Sensing vs. Intuition) - The most effective consultants were intuitive, while the least effective consultants were sensing types. (Myers-Briggs)
6. JP (Judging vs. Perceptive) - The most effective consultants were perceptive, while the least effective consultants were judging types. (Myers-Briggs)
7. H (Shy vs. Bold) - The most effective consultants were bold while the least effective consultants were shy. (16PF)
8. L (Trusting vs. Suspicious) - The most effective consultants were trusting while the least effective consultants were suspicious. (16PF)
9. Q4 (Relaxed vs. Tense) - The most effective consultants were relaxed, while the least effective consultants were tense. (16PF)

C. CORRELATION BETWEEN A SUPERIOR'S RATING OF A SUBORDINATE'S EFFECTIVENESS AND THE SIMILARITY OR DISSIMILARITY OF THEIR PERSONALITIES

The regressions, when superior ratings were used as the measure of effectiveness, resulted in ten variables that were most predictive of effectiveness. In order to examine the correlation between the superior's rating of a

subordinate's effectiveness and the similarity or dissimilarity of their personalities, an absolute value difference score was computed for nine of the ten most predictive personality characteristics (knowledge was omitted). These difference scores were then added to form a total difference for each individual. These difference scores were then correlated to the superior's rating of that individual. The resulting correlation coefficient was $-.309$ with a P-value of $.72$. The results of an additional examination testing the relationship of single personality characteristic differences and subordinates effectiveness is revealed in Table 8 of Appendix I.

A review of Table 8 shows that there were no significant positive or negative correlations. In general, there were no positive correlations greater than $.12$ and no negative correlations less than $-.20$.

Thus, the results supports the hypothesis that there is no significant correlation between a superior's rating of a subordinate's effectiveness and the similarity or dissimilarity of their personalities. This in turn provides support for the effectiveness instrument used in this research study, i.e. that the superiors rated their subordinates effectiveness without regard to personality.

D. SUMMARY

The results of this study indicate that certain personality characteristics can be used to predict

effectiveness. When an indicator of knowledge is combined with personality characteristics, prediction capability is enhanced. Additionally, the results indicate that there are significant differences in personality characteristics between the most effective and least effective consultants. Finally, the results provide support for the objectivity of the superiors' effectiveness ratings. Chapter V will discuss these results in more detail.

V. DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

In the first part of this chapter the results of this research are reviewed and discussed. The next section discusses some methodological issues concerning the research project. Finally, conclusions and recommendations for future study are addressed.

A. DISCUSSION

Throughout this research the authors have examined the relationship between OD consultants' personalities and their effectiveness as consultants. The results indicate that personality characteristics can be used to predict consultant effectiveness. It was also determined that certain personality characteristics seemed to be better predictors of effectiveness than others. Finally, when a measure of a consultant's knowledge is combined with the best predicting personality characteristics, 50 percent of the variance associated with peer ratings as an effectiveness measure is explained. Finally, there are significant differences in the characteristics that are most predictive of effectiveness when they are examined for two groups, the most effective and least effective consultants.

The group which was composed of the most effective consultants was more knowledgeable. The measure of knowledge was based on Burke's "Assessment Questionnaire for Knowledge

and Understanding of OD". A high score on this questionnaire by the most effective group means that they have a better knowledge and understanding of OD theory and application. Knowledge increases the consultant's ability to answer a client's technical questions. It helps them explain why they are recommending specific intervention steps. Finally, knowledge lets the consultant appear as an expert allowing the client to feel more at ease as the consultant recommends changes for the organization.

Yellow Parent, Blue Parent, and Green Parent are characteristics obtained from Personalysis. The most effective consultants had more Yellow Parent than Blue Parent, and more Blue Parent than Green Parent. Consultants with a high degree of Yellow Parent feel a strong need to cooperate. They expect the opportunity to confer, they need involvement from other people to solve problems, and they identify with group goals. In short, they tend to be adaptive, persuasive, democratic and good team players.

The most effective consultants also had a large degree of Blue Parent. Consultants with a high degree of Blue Parent are individualistic, working best in autonomous situations and doing less well under close supervision. Blue Parent is also indicative of a person who is thoughtful and intuitive.

Another interesting finding is the fact that the most effective consultants have significantly less Green Parent

than the least effective consultants. This implies that the least effective consultants do not respond well to autonomous management, but instead desire clear, direct management. They need predictability and use past experiences and facts to analyze risks and make decisions. The least effective group also has low tolerance for ambiguity.

In summary, the characteristics obtained from Personalysis imply that the most effective consultants are team players, working best under autonomous conditions, free of a large degree of external control. They are thoughtful, intuitive and have a high tolerance for ambiguity.

Next, two characteristics obtained from the Myers-Briggs Type Indicator were found to be significantly different between the two groups of consultants. First, the most effective consultants were intuitive types while the least effective were sensing types. This difference implies that the most effective group is more likely to look for possibilities and new relationships than to only work with known facts. In other words, during an OD intervention the consultants that are intuitive will look beyond the facts. They will search deeply into the client's organization ferreting out relationships among the facts in an effort to discover the potential causes of the problem. Second, the most effective consultants were perceptive while the least

effective group was more judging. This difference implies that the most effective group is more flexible and spontaneous than the least effective group, able to respond to the immediacy of a situation vs. prejudging it. In summary, the most effective consultants are more responsive to differing situations and more resourceful in solving new and challenging problems.

Finally, three characteristics obtained from 16PF resulted in significant differences between the two groups of consultants. These three characteristics are centered around self-confidence. The most effective consultants are more socially bold, more trusting and more relaxed than the least effective consultants. Consultants that are more bold are venturesome, are willing to be more spontaneous with new ideas. They are "thick-skinned", meaning they are not afraid to suggest new and different ideas to help resolve a conflicting situation. They are not afraid to interact with people and do not expect to be ignored or laughed at. The characteristic of being more trusting indicates that the most effective consultants are less jealous and more collaborative. They are consequently more open and tolerant. In consulting this characteristic is critical. When the consultant is honest and open, he encourages the same behavior in the client, resulting in more information flow for problem solving and a great willingness on the part of the client to risk changes. Finally, the most effective

consultants are more relaxed. They tend to remain composed even during tense or frustrating situations. Thus, the more effective consultant will appear more expert and self-confident to the client.

B. METHODOLOGICAL ISSUES

While conducting this research several methodological issues surfaced. The first issue centered around the amount of time each subject needed to complete the four personality instruments, the knowledge questionnaire, the effectiveness measures, and the demographic survey. On several occasions, the researchers were approached by subjects who stated that the data gathering phase took too long (3.0 to 3.5 hours). While the large amount of data collected increases the validity of the study (eg. the overlap in personality characteristics between various measures), the lengthy time required of subjects may have contributed to some data gathering short falls. One that seems plausible is the fact that the FIRO-B instrument was usually the last instrument completed. It was also the least predictive of the four personality instruments. FIRO-B has been used by many other researchers and is considered to be an effective instrument. The fact that it was completed last, following three other personality instruments, may indicate that the subjects did not treat it as enthusiastically as they treated the first instruments.

The issue of time was discussed among the researchers on several occasions prior to the data gathering phase. In fact, the amount of time each instrument was to take became an important criteria for instrument selection. This issue is important and should also be addressed in future studies. There is clearly a tension between keeping subjects alert and interested and the need to collect the relevant data.

The second methodological issue is centered around the effectiveness of OD consultants. These researchers elected to use peer and superior ratings as effectiveness measures. Peer rating was chosen because OD consultants rely on reputation among fellow consultants to help build a client base. Superior rating was chosen because it is used throughout the military as the measure of effectiveness. An additional measure of effectiveness that would increase the validity of this study would be clients' ratings. Clients' opinions of the success of an OD intervention are a significant measure of a consultant's effectiveness. One problem is however, that clients often only have experience with one consultant thus not having a comparison base. Another problem is the identification of the client. One part of the client system may be quite satisfied, while another is not. It may not always be that the commanding officer's satisfaction is always highly correlated with what is best for the organization. So determining who to select as the client offers some challenges.

C. RECOMMENDATIONS AND CONCLUSIONS

A research project of this type is essentially exploratory, its principal function having been the determination of the relationship between personality characteristics and the effectiveness of OD consultants. The results of this study do indicate that there is a relationship between effectiveness and personality characteristics.

These results can be used as a basis for further research. One area for further research is a continuation of this study, using civilian OD consultants as the subjects. Such a study would be a test of the reliability of these results as well as extending its generalizing ability. If additional studies generate the same results, then further research could be conducted to develop a single personality instrument that measures only those characteristics most predictive of effective OD consultants. It could be used as an initial screening tool similar to the way candidates are screened for aviation training. An instrument developed to measure consultant characteristics most predictive of success could be an valuable tool for the Navy.

APPENDIX A

ALPHABETICAL LISTING OF CONSULTANT PERSONALITY CHARACTERISTICS

<u>Achievement</u>	Prakesh [Ref. 25:p.11-16] Miner [Ref. 26:p.13]
<u>Adaptability</u>	G. Lippitt [Ref. 39:p.28] Varney [Ref. 40:p.31] Warrick & Donovan [Ref. 17:p.23] Menzel [Ref. 41:p.100]
<u>Advocate</u>	Menzel [Ref. 41:p.99] Shepard & Raia [Ref. 42:p.93] Beer [Ref. 43:p.222] Warrick & Donovan [Ref. 17:p.23]
<u>Affiliation</u>	Prakesh [Ref. 25:p.11] G. Lippitt [Ref. 39:p.22]
<u>Ambiguity</u>	Argyris [Ref. 44:p.175] Steele [Ref. 45:p.139] Porter [Ref. 46:p.5] Lippitt & Lippitt [Ref. 41:p.103] G. Lippitt [Ref. 39:p.16]
<u>Analytical</u>	G. Lippitt [Ref. 39:p.15] Lippitt & Lippitt [Ref. 41:p.100- 101]
<u>Articulate</u>	Spehn [Ref. 47:p.43] Frank, Struth & Donovan [Ref. 23 p.32] Shepard & Raia [Ref. 42:p.93]
<u>Charisma</u>	Barber & Nord [Ref. 48:p.200-201] Shepard & Raia [Ref. 42:p.93]
<u>Collaboration</u>	Lippert [Ref. 32:p.27] Schwab [Ref. 52:p.262] Beer [Ref. 43:p.223] Warrick & Donovan [Ref. 17:p.23] Burke [Ref. 24:p.2]
<u>Competent</u>	Argyris [Ref. 44:p.32] Shepard & Raia [Ref. 42:p.93] Gallessich [Ref. 49:p.365] Maginnis [Ref. 9:p.102]

Conceptual

Blake & Mouton [Ref. 50:p.1]
Burke [Ref. 24:p.2]
Varney [Ref. 40:p.2]
G. Lippitt [Ref. 39:p.5]
Beckhard [Ref. 51:p.1]

Confrontive

Schein [Ref. 52:p.84]
Maginnis [Ref. 9:p.102]
Warrick & Donovan [Ref. 17:p.23]
Argyris [Ref. 44:p.221]

Cooperative

Steele [Ref. 45:p.119]
Porter [Ref. 46:p.3]
Schwab [Ref. 53:p.68]
Lippert [Ref. 32:p.27]

Courageous

G. Lippitt [Ref. 39:p.15]
Porter [Ref. 46:p.5]

Creative

Maginnis [Ref. 9:p.102]
Barber & Nord [Ref. 48:p.200-201]
Porter [Ref. 46:p.5]
Warrick & Donovan [Ref. 17:p.23]

Discretion

Lippert [Ref. 32:p.85]

Empathy

Carey & Varney [Ref. 54:p.40]
Beckhard [Ref. 51:p.1]
Burke [Ref. 24:p.2]

Enthusiastic

Harrison [Ref. 55:p.715]
Warrick & Donovan [Ref. 17:p.23]

Expert

Schwab [Ref. 53:p.262]
Maginnis [Ref. 9:p.102]

Flexible

Lehr [Ref. 56:p.263]
Maginnis [Ref. 9:p.102]
Warrick & Donovan [Ref. 17:p.23]
Steele [Ref. 45:p.136]
Lippitt & Lippitt [Ref. 41:p.100-101]
Menzel [Ref. 41:p.100]

Friendly

Harrison [Ref. 55:p.715]
Lippitt & Lippitt [Ref. 41:p.100-101]

Honest

Warrick & Donovan [Ref. 17:p.23]
Shepard & Raia [Ref. 42:p.93]
Varney [Ref. 40:p.31]

Humorous

Burke [Ref. 24:p.354]
Carey & Varney [Ref. 54:p.40]
Warrick & Donovan [Ref. 17:p.23]
Porter [Ref. 46:p.6]
Steele [Ref. 45:p.200]
G. Lippitt [Ref. 39:p.21]

Imaginative

Varney [Ref. 40:p.31]
G. Lippitt [Ref. 39:p.15]

Influential

Maginnis [Ref. 9:p.102]
Burke [Ref. 24:p.2]
Lehr [Ref. 56:p.263]

Initiative

Maginnis [Ref. 9:p.2]
G. Lippitt [Ref. 39:p.7]

Innovative

Maginnis [Ref. 9:p.102]
Barber & Nord [Ref. 48:p.200-201]
Porter [Ref. 46:p.5]
Warrick & Donovan [Ref. 17:p.23]
G. Lippitt [Ref. 39:p.15]

Intelligent

Reddin [Ref. 57:p.2]
Dekom [Ref. 58:p.14]

Intuitive

G. Lippitt [Ref. 39:p.15]
Steele [Ref. 45:p.73]
Argyris [Ref. 44:p.143]

Insight

Beckhard [Ref. 51:p.1]
Burke [Ref. 24:p.2]
Varney [Ref. 40:p.31]
G. Lippitt [Ref. 39:p.2]
Warrick & Donovan [Ref. 17:p.23]

Marginality

Beer [Ref. 42:p.222-223]
Reddin [Ref. 57:p.2]
Argyris [Ref. 44:p.175]

Mature

Albert [Ref. 59:p.12]
G. Lippitt [Ref. 39:p.16]
Lippitt & Lippitt [Ref. 41:p.103]

Motivated

Shepard & Raia [Ref. 42:p.93]
Porter [Ref. 46:p.3]
Gallessich [Ref. 49:p.365]

Open

Carey & Varney [Ref. 54:p.40]
Burke [Ref. 24:p.2]
Varney [Ref. 40:p.31]
Lippitt & Lippitt [Ref. 41:p.100-101]

<u>Patient</u>	Carey & Varney [Ref. 54:p.40] Lippitt & Lippitt [Ref. 41:103]
<u>Perceptive</u>	Spehn [Ref. 47:43] Carey & Varney [Ref. 54:p.38-40] Harrison [Ref. 55:p.715] Steele [Ref. 45:p.200] Warrick & Donovan [Ref. 17:p.23]
<u>Polite</u>	Kakabadse [Ref. 60:p.17]
<u>Positive</u>	Maginnis [Ref. 9:p.102] Harrison [Ref. 55:p.715] Warrick & Donovan [Ref. 17:p.23]
<u>Reassuring</u>	Shepard & Raia [Ref. 42:p.93] Frank, Struth & Donovan [Ref.23: p.81] Warrick & Donovan [Ref. 17:p.23]
<u>Resourceful</u>	Argyris [Ref. 44:p.143]
<u>Respectful</u>	Kakabadse [Ref. 60:p.17] Lehr [Ref. 56:p.263]
<u>Risk-Taking</u>	Warrick & Donovan [Ref. 17:p.23] Argyris [Ref. 44:p.221]
<u>Self-confident</u>	Maginnis [Ref. 9:p.102] Argyris [Ref. 44:p.32/140-141] Schwab [Ref. 53:p.51]
<u>Self-controlled</u>	Maginnis [Ref. 9:p.102] Warrick & Donovan [Ref. 17:p.23] Varney [Ref. 40:p.40] Harrison [Ref. 55:p.715] Porter [Ref. 46:p.5]
<u>Sensitive</u>	G. Lippitt [Ref. 39:p.10-11] Sebring [Ref. 61:p.52]
<u>Spontaneous</u>	Beckhard [Ref. 51:p.1] Schwab [Ref. 53:p.52]
<u>Stable</u>	Beer [Ref. 43:p.223] G. Lippitt [Ref. 39:p.21] Reddin [Ref. 57:p.2] Steele [Ref. 45:p.73 + 200] Porter [Ref. 46:p.6]
<u>Tactful</u>	Dekom [Ref. 58:p.14]

Timing

G. Lippitt [Ref. 39:p.16]
Lippitt & Lippitt [Ref. 41:p.103]

Trust

Barone [Ref. 62:p.34]
Porter [Ref. 46:p.4]
Varney [Ref. 40:p.31]
Schein [Ref. 52:p.86]

Warmth

(care of people)

McClelland [Ref. 41:p.14]
Barber & Nord [Ref. 48:p.201-202]
G. Lippitt [Ref. 39:p.15]
Warrick & Donovan [Ref. 17:p.23]

APPENDIX B

SUPERIOR/PEER RATING FORM

INSTRUCTIONS: INDICATE THE DEGREE TO WHICH EACH CONSULTANT MEASURES UP TO EACH STATEMENT BELOW BY MARKING THE APPROPRIATE NUMBER FROM THE SCALE TO THE ANSWER SHEET.

1. Does this consultant know organizational effectiveness theory?

very low degree	low degree	moderate degree	high degree	very high degree
1	2	3	4	5

2. Is this consultant willing to confront others on their point of view?

very low degree	low degree	moderate degree	high degree	very high degree
1	2	3	4	5

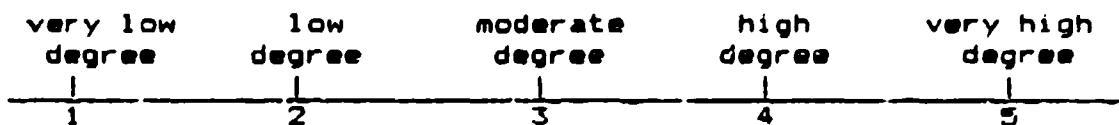
3. Does this consultant develop new skills in others?

very low degree	low degree	moderate degree	high degree	very high degree
1	2	3	4	5

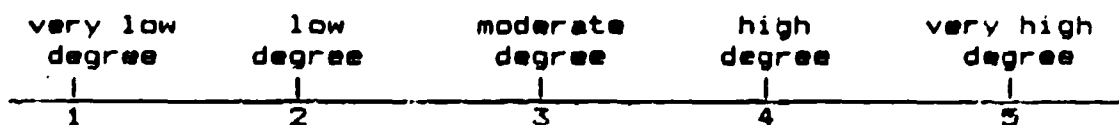
4. Is this consultant able to facilitate discussion of sensitive issues?

very low degree	low degree	moderate degree	high degree	very high degree
1	2	3	4	5

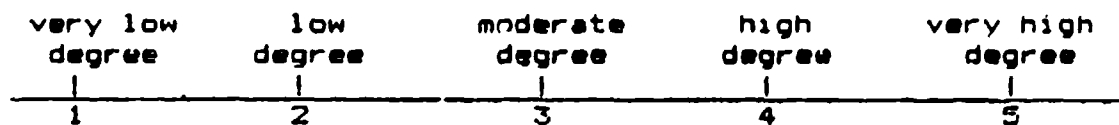
5. Does this consultant persuade others to see an alternative point of view?



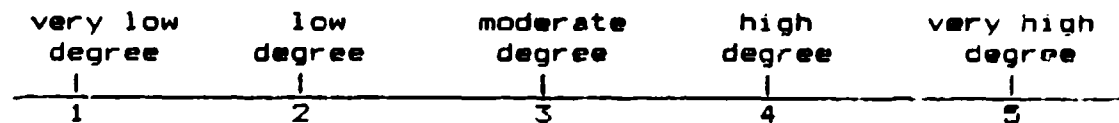
6. Does this consultant make sense of complex data using theories and models?



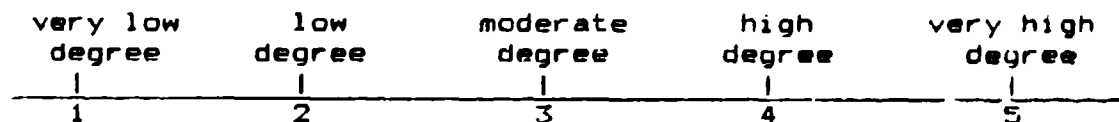
7. Does this consultant use his knowledge of the influential people in the organization to plan his course of action?



8. Does this consultant adjust his behavior to fit the culture of the client system?



9. Is this consultant goal-oriented in his interventions?



APPENDIX C

16PF --CAPSULE DESCRIPTIONS OF THE 16 PRIMARY PERSONALITY FACTORS

Factor A

Reserved, Detached, Critical, Cool, Impersonal

People who score low (sten of 1 to 3) on Factor A tend to be stiff, cool, skeptical, and aloof. They like things rather than people, working alone, and avoiding compromises of viewpoints. They are likely to be precise and "rigid" in their way of doing things and in their personal standards. In many occupations these are desirable traits. They may tend, at times, to be critical, obstructive, or hard.

vs.

**Warmhearted, Outgoing, Participating, Interested in People,
easy-going**

People who score high (sten of 8 to 10) on Factor A tend to be goodnatured, easygoing, emotionally expressive, ready to cooperate, attentive to people, softhearted, kindly, adaptable. They like occupations dealing with people and socially impressive situations, and they readily form active groups. they are generous in personal relations, less afraid of criticism, better able to remember names of people.

FACTOR B

Less Intelligent, Concrete-thinking

The person scoring low on Factor B tends to be slow to learn and grasp, dull, given to concrete and literal

interpretation. This dullness may be simply a reflection of low intelligence, or it may represent poor functioning due to psychopathology.

vs.

More Intelligent, Abstract-thinking, Bright

The person who scores high on Factor B tends to be quick to grasp ideas, a fast learner, intelligent. There is some correlation with level of culture, and some with alertness. High scores contraindicate deterioration of mental function in pathological conditions.

FACTOR C

Affected Feelings, Emotionally Less Stable, easily Upset, changeable

The person who scores low on factor C tends to be low in frustration tolerance for unsatisfactory conditions, changeable and plastic, evading necessary reality demands, neurotically fatigued, fretful, easily annoyed and emotional, active in dissatisfaction, having neurotic symptoms (phobias, sleep disturbances, psychosomatic complaints, etc.). Low Factor C score is common to almost all forms of neurotic and some psychotic disorders.

vs.

Emotionally Stable, Mature, Faces Reality, Calm, Patient

The person who scores high on Factor C tends to be emotionally mature, stable, realistic about life, unruffled, possessing ego strength, better able to maintain solid group morale. This person may be making a resigned adjustment to

unsolved emotional problems. Shrewd clinical observers have pointed out that a good C level sometimes enables a person to achieve effective adjustment despite an underlying psychotic potential.

FACTOR E

Humble, Mild, Accommodating, easily Led, Conforming

Individuals scoring low on Factor E tend to give way to others, to be docile, and to conform. they are often dependent, confessing, anxious for obsessional correctness. this passivity is part of many neurotic syndromes.

vs.

Assertive, Aggressive, Authoritative, Competitive, Stubborn

Individuals scoring high on Factor E are assertive, self-assured, and independent-minded. They tend to be austere, a law to themselves, hostile or extrapunitive, authoritarian (managing others), and disregarding of authority.

FACTOR F

Sober, Prudent, Serious, Taciturn

Low scores on Factor F tend to be restrained, reticent, and introspective. They are sometimes dour, pessimistic, unduly deliberate, and considered smug and primly correct by observers. They tend to be sober, dependable people.

vs.

Happy-go-lucky, Impulsive Lively, Enthusiastic, Heedless

High scores on this trait tend to be cheerful, active, talkative, frank, expressive, effervescent, and carefree.

They are frequently chosen as elected leaders. They may be impulsive and mercurial.

FACTOR G

Expedient, Disregard Rules, Feels Few Obligations

People who score low on Factor G tend to be unsteady in purpose. They are often casual and lacking in effort for group undertakings and cultural demands. Their freedom from group influence may lead to anti-social acts, but at times make them more effective, while their refusal to be bound by rules causes them to have less upset from stress.

vs.

Conscientious, Persevering, Proper, Moralistic, Rule-bound

People who score high on Factor G tend to be exacting in character, dominated by sense of duty, persevering, responsible, planful, "fill the unforgiving minute." They are usually conscientious and moralistic, and they prefer hard-working people to witty companions. The inner "categorical imperative" of this essential superego (in the psychoanalytic sense) should be distinguished from the superficially similar "social ideal self" of Q3+.

FACTOR H

Shy, Restrained, Threat-sensitive, Timid

Individuals who score low on this trait tend to be shy, withdrawing, cautious, retiring, "wallflowers." They usually have inferiority feelings and tend to be slow and impeded in speech and in expressing themselves. They

dislike occupations with personal contacts, prefer one or two close friends to large groups, and are not given to keeping in contact with all that is going on around them.

vs.

Venturesome, Socially bold, Uninhibited, Spontaneous

Individuals who score high of Factor H are sociable, bold, ready to try new things, spontaneous, and abundant in emotional response. Their "thick-skinnedness" enables them to face wear and tear in dealing with people and grueling emotional situations, without fatigue. However, they can be careless of detail, ignore danger signals, and consume much time talking. They tend to be "pushy" and actively interested in the opposite sex.

FACTOR I

Tough-minded, Self-reliant, Realistic, No-nonsense

People who score low on Factor I tend to be tough, realistic, "down-to earth," independent, responsible, but skeptical of subjective, cultural elaborations. They are sometimes unmoved, hard, cynical, smug. They tend to keep a group operating on a practical and realistic "no-nonsense" basis.

vs.

Tender-minded, Intuitive, Unrealistic, Sensitive

People who score high on Factor I tend to be emotionally sensitive, day-dreaming, artistically fastidious, and fanciful. They are sometimes demanding of attention and

help, impatient, dependent, temperamental, and not very realistic. They dislike crude people and rough occupations. In a group, they often tend to slow up group performance and upset group morale by undue fussiness.

FACTOR L

Trusting, Adaptable, Free of Jealousy, easy to Get on With

The person who scores low on Factor L tends to be free of jealous tendencies, adaptable, cheerful, uncompetitive, concerned about others, a good team worker. They are open and tolerant and usually willing to take a chance with people.

vs.

Suspicious, Self-opinionated, Hard to Fool, Skeptical, Questioning

People who score high on Factor L tend to be mistrusting and doubtful. They are often involved in their own egos and are self-opinionated and interested in internal, mental life. Usually they are deliberate in their actions, unconcerned about other people, and poor team members.

FACTOR M

Practical, Careful, Conventional, Regulated by External Realities

Low scores on Factor M tend to be anxious to do the right things, attentive to practical matters, and subject to the dictation of what is obviously possible. They are concerned over detail, able to keep their heads in emergencies, but are sometimes unimaginative. In short,

they are responsive to the outer, rather than the inner world.

vs.

Imaginative, Careless of Practical Matters, Unconventional, Absent Minded

High scorers on Factor M tend to be unconventional, unconcerned over everyday matters, self-motivated, imaginatively creative, concerned with "essential," often absorbed in thought, and oblivious of particular people and physical realities. Their unrealistic situations accompanied by expressive outbursts. Their individuality tends to cause them to be rejected in group activities.

FACTOR N

Forthright, Natural, Genuine, Unpretentious

Individuals who score low on Factor N have a lot of natural warmth and a genuine liking for people, are uncomplicated and sentimental, and are unvarnished in their approach to people.

vs.

Shrewd, Calculating, Socially, Alert, Insightful

Individuals who score high on Factor N tend to be polished, experienced, and shrewd. Their approach to people and problems is usually perceptive, hardheaded, and efficient, and unsentimental approach to situations, an approach akin to cynicism.

FACTOR 0

Unperturbed, Self-assured, Confident, Secure, Self-satisfied

Persons with low scores of Factor 0 tend to be unruffled, with unshakable nerve. They have a mature, unanxious confidence in themselves and their capacity to deal with things. They are resilient and secure, but to the point of being insensitive of when a group is not going along with them, so that they may evoke distrust.

vs.

Apprehensive, Worrying, Troubled

Persons with high scores of Factor 0 have a strong sense of obligation and high expectations of themselves. They tend to worry and feel anxious and guilt-stricken over difficulties. Often they do not feel accepted in groups or free to participate. High Factor 0 score is very common to clinical groups of all types.

FACTOR Q1

Conservative, Respecting Established Ideas, Tolerant of Traditional Difficulties

Low scorers on Factor Q1 are confident in what they have been taught to believe, and accept the "tried and true," despite inconsistencies, when something else might be better. They are cautious and compromising in regard to new ideas. Thus, they tend to oppose and postpone change, are inclined to go along with tradition, are more conservative

in religion and politics, and tend not to be interested in analytical "intellectual" thought.

vs.

Experimenting, Liberal, Analytical, Likes Innovation

High scorers on Factor Q1 tend to be interested in intellectual matters and have doubts on fundamental issues. They are skeptical and inquiring regarding ideas, either old or new. Usually they are more well informed, less inclined to moralize, more inclined to experiment in life generally, and more tolerant of inconvenience and change.

FACTOR Q2

Group Oriented, A "joiner" and Sound Follower

Individuals who score low on Factor Q2 prefer to work and make decisions with other people and like and depend on social approval and admiration. They tend to go along with the group and may be lacking in individual resolution. They are not necessarily gregarious by choice; rather they might need group support.

vs.

Self-sufficient, Prefers Own Decisions, Resourceful

Individuals who score high of Factor Q2 are temperamentally independent, accustomed to going their own way, making decisions and taking action on their own. They discount public opinion, but are not necessarily dominant in their relations with others (see Factor E); in fact, they could be hesitant to ask others for help. They do not

dislike people, but simply do not need their agreement or support.

FACTOR Q3

Undisciplined Self-conflict, Careless of Protocol, Follows Own Urges

People who score low on Factor Q3 will not be bothered with control and have little regard for social demands. They are impetuous and not overly considerate, careful, or painstaking. They may feel maladjusted, and many maladjustments (especially the affective, but not the paranoid) show Q3-.

vs.

Controlled, Socially Precise, Following Self-image, Compulsive

People who score high on factor Q3 tend to have strong control of their emotions and general behavior, are inclined to be socially aware and careful, and evidence what is commonly termed "self-respect" and high regard for social reputation. They sometimes tend, however, to be perfectionistic and obstinate. Effective leaders, and some paranoids, are high on Q3.

Factor Q4

Relaxed, Tranquil, Torpid, Unfrustrated

Individuals who score low on factor Q4 tend to be sedate, relaxed, composed, and satisfied (not frustrated). In some situations, their oversatisfaction can lead to laziness and low performance. In the sense that low

motivation produces little trial and error. Conversely, high tension level may disrupt school and work performance.

vs.

Tense, Frustrated, Driven, Restless, Overwrought

Individuals who score high on Factor Q4 tend to be tense, restless, fretful, impatient, and hard driving. They are often fatigued, but unable to remain inactive. In groups they take a poor view of the degree of unity, orderliness, and leadership. Their frustration represents an excess of stimulated, but undischarged, drive.

APPENDIX D

FIRQ-B -- INTERPRETATION OF SUMMARY SCORES

Inclusion. High score means a strong desire for contact with people regardless of who initiates it. Low score indicates preference for aloneness.

Control. High score means a desire for structure, a preference for giving and taking orders, low scores mean low structure, a laissez-faire attitude with respect to authority, neither wanting to give nor receive orders.

Openness. High score indicates desire for a great deal of exchange of affection and warmth. Low score means a preference for more personal distance from people and more impersonal, business-like relationships.

There are two concepts which cut across the three personality dimensions (Inclusion, Control and Openness); these are Expressed and Wanted.

Expressed. High score means active initiation of behavior toward others. Low score indicates little desire to initiate behavior toward people.

Wanted. High score means you want other people to initiate behavior toward you. Low score signifies a desire to have other people not initiate behavior toward you. Point total. High score means a preference for a great deal of interaction with people in all areas. Low score indicates a desire to have little contact with people, a desire to be more alone and uninvolved.

APPENDIX E

MYERS-BRIGGS TYPE INDICATOR -- A Brief Description of the 16 Personality Types

ISTJ

Serious, quiet, earn success by concentration and thoroughness. Practical, orderly, matter-of-fact, logical, realistic and dependable. See to it that everything is well organized. Take responsibility. Make up their own minds as to what should be accomplished and work toward it steadily, regardless of protests or distractions.

Live their outer life more with thinking, inner more with sensing.

ISTP

Cool onlookers, quiet, reserved, observing and analyzing life with detached curiosity and unexpected flashes of original humor. Usually interested in impersonal principles, cause and effect, or how and why mechanical things work. Exert themselves no more than they think necessary, because any waste of energy would be inefficient.

Live their outer life more with sensing, inner more with thinking.

ESTP

Matter-of-fact, do not worry or hurry, enjoy whatever comes along. Tend to like mechanical things and sports, with friends on the side. May be a bit blunt or insensitive. Can do math or science when they see the need.

Dislike long explanations. Are best with real things that can be worked, handled, taken, apart or put back together.

Live their outer life more with sensing, inner more with thinking.

ESTJ

Practical realists, matter-of-fact, with a natural head for business or mechanics. Not interested in subjects they see no use for, but can apply themselves when necessary. Like to organize and run activities. Tend to run things well, especially if they remember to consider other people's feelings and points of view when making their decisions.

Live their outer life more with thinking, inner more sensing.

ISFJ

Quiet, friendly, responsible and conscientious. Work devotedly to meet their obligations and serve their friends and school. Thorough, painstaking accurate. May need time to master technical subjects, as their interests are not often technical. Patient with detail and routine. Loyal, considerate, concerned with how other people feel.

Live their outer life more with feeling, inner more with sensing.

ISFP

Retiring, quietly friendly, sensitive, modest about their abilities. Shun disagreements, do not force their opinions or values on others. Usually do not care to lead

but are often loyal followers. May be rather relaxed about assignments or getting things done, because they enjoy the present moment and do not want to spoil it by undue haste or exertion.

Live their outer life more with sensing, inner more with feeling.

ESFP

Outgoing, easygoing, accepting, friendly, fond of a good time. Like sports and making things. Know what's going on and join in eagerly. Find remembering facts easier than mastering theories. Are best in situations that need sound common sense and practical ability with people as well as with things.

Live their outer life more with sensing, inner more with feeling.

ESFJ

Warm-hearted, talkative, popular, conscientious, born cooperators, active committee members. Always doing something nice for someone. Work best with plenty of encouragement and praise. Little interest in abstract things or technical subjects. Main interest is in things that directly and visibly affect people's lives.

Live their outer life more with feeling, inner more with sensing.

INFJ

Succeed by perseverance, originality and desire to do whatever is needed or wanted. Put their best efforts into their work. Quietly forceful, conscientious, concerned for others. Respected for their firm principles. Likely to be honored and followed for their clear convictions as to how best to serve the common good.

Live their outer life more with feeling, inner with intuition.

INFP

Full of enthusiasms and loyalties, but seldom talk of these until they know you well. Care about learning, ideas, language, and independent projects of their own. Apt to be on yearbook staff, perhaps as editor. Tend to undertake too much, then somehow get it done. Friendly, but often too absorbed in what they are doing to be sociable or notice much.

Live their outer life more with intuition, inner more with feeling.

ENFJ

Responsive and responsible. Feel real concern for what others think and want, and try to handle things with due regard for other people's feelings. Can present a proposal or lead a group discussion with ease and tact. Sociable, popular, active in school affairs, but put time enough on their studies to do good work.

Live their outer life more with feeling, inner more with intuition.

INTJ

Have original minds and real drive which they use only for their own purposes. In fields that appeal to them they have a fine power to organize a job and carry it through with or without help. Skeptical, critical, independent, determined, often stubborn. Must learn to yield less important points in order to win the most important.

Live their outer life more with thinking, inner more with intuition.

INTP

Quiet, reserved, brilliant in exams, especially in theoretical or scientific subjects. Logical to the point of hair-splitting. Interested mainly in ideas, with little liking for parties or small talk. Tend to have very sharply defined interests. Need to choose careers where some strong interest of theirs can be used and useful.

Live their outer life more with intuition, inner more with thinking.

ENTP

Quick, ingenious, good at many things. Stimulating company, alert and outspoken, argue for fun on either side of a question. Resourceful in solving new and challenging problems, but may neglect routine assignments. Turn to one new interest after another. Can always find logical reasons

for whatever they want.

Live their outer life more with intuition, inner more with thinking.

ENTJ

Hearty, frank, able in studies, leaders in activities. Usually good in anything that requires reasoning and intelligent talk, such as public speaking. Are well-informed and keep adding to their fund of knowledge. May sometimes be more positive and confident than their experience in an area warrants.

Live their outer life more with thinking, inner more with intuition.

APPENDIX F

Personalysis Key

ADULT -- PREFERRED STYLE OF MANAGING SELF AND OTHERS

RA -- Red Adult:

Enjoys leadership roles. Will give strong direction. Wants concrete results. Is authoritative. Takes charge. Uses personal power to get things done. Is practical and realistic.

Prefers to manage those who will take direction and get results.

YA -- Yellow Adult

Enjoys roles that involve coordinating activities. Wants to involve others. Will delegate and give flexible leadership. Organizes others to get things done. Uses democratic methods. Promotes cooperation.

Prefers to manage those who identify with group goals.

GA -- Green Adult

Enjoys roles that deal with structuring and monitoring activities. Likes to be systematic and orderly. Wants to perform accurately and in a timely manner. Is cautious and reserved.

Prefers to manage those who respond to management by policies and regulations.

BA -- Blue Adult

Enjoys creative problem-solving roles. Is mentally active and likes to develop alternatives. Is individualistic and self directed. Will give a lot of freedom. Synthesizes knowledge to plan.

Prefers to manage those who manage themselves.

PARENT -- PREFERRED STYLE OF BEING MANAGED

RP -- Red Parent

Will expect to know the short-term objectives. Wants to be given concrete and specific information. Feels there ought to be tangible results. Feels insecure if superior is uncertain.

Does not respond well to passive, indirect management.

YP -- Yellow Parent

Will expect to be involved in decision-making. Wants an informal relationship with superiors. Identifies with organizational goals. Feels insecure if superior denies or rejects involvement.

Does not respond well to rigid, bureaucratic control.

GP -- Green Parent

Will expect consistent, balanced treatment. Wants stated procedures, regulations. Needs to know specific areas of accountability. Likes to follow a system and expects fairness. Feels insecure if superior fails to provide guidelines and structure.

Does not respond well to management that is vague about procedures and expectations.

BP -- Blue Parent

Will expect freedom to be self-directed. Wants to express ideas and have input. Is conscientious. Refines directions by asking questions and understanding "why". Likes an "open door" policy.

Does not respond well to direct authoritative demands.

Child -- MOTIVATIONAL NEEDS

RC -- Red Child

Needs to feel he is achieving short-term goals. Wants to earn respect through tangible accomplishments. Needs to feel dominant with authority to act independently. Responds negatively to delays in action.

YC -- Yellow Child

Needs to feel he is maintaining a positive influence over others. Wants to keep options open to maintain flexibility. Uses positive feedback to measure success. Wants affirmation and attention from others.

GC -- Green Child

Needs to feel he is maintaining control. Seeks predictability and consistency. Wants others to respect his territorial rights. Needs to analyze to minimize risks. Change must be justifiable. Requires accountability. Responds negatively to pressure for rapid change and decision making.

BC --Blue Child

Needs to feel he is achieving understanding. Must feel genuinely valued. Depends on exchange of feedback to feel understood. Is sensitive and wants closeness in relationships. Responds negatively to lack of communication.

APPENDIX G
ASSESSMENT QUESTIONNAIRE
FOR
KNOWLEDGE AND UNDERSTANDING
OF
ORGANIZATION DEVELOPMENT

W. WARNER BURKE

Please record your answers on the separate answer sheet.

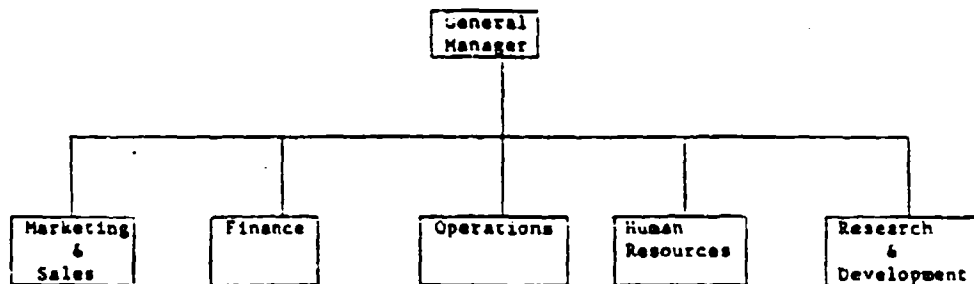
1. While organization development may mean any of the following, it is most closely identified with
 - a) management improvement.
 - b) growth.
 - c) change.
 - d) decentralization.
2. Which of the following depicts best a fundamental principle of human behavior on which OD is based?
 - a) Organizational performance improves as individual employee autonomy increases
 - b) Involvement in decision making leads to commitment
 - c) Humanization of work increases productivity
 - d) Decentralization relates positively with organizational performance
3. Which of the following values is most closely associated with organization development?
 - a) Power decentralization
 - b) Humanistic treatment of organizational members
 - c) Racial and sexual equality in the workplace
 - d) Career development is a right of employment
4. Maslow's and Herzberg's theories of human motivation are similar, yet a fundamental difference between the two is that
 - a) Herzberg ignores ego needs.
 - b) need theory is not the underlying basis of Herzberg's thinking.
 - c) Hygiene factors do not correspond in any way to Maslow's hierarchy.
 - d) Maslow's theory is represented by a single hierarchical continuum, whereas Herzberg postulates two continua.
5. The phases of OD consultation from "entry" through intervention and "evaluation" are based on Lewin's broad framework of change phases, which are
 - a) diagnosis, feedback and change.
 - b) diagnosis, action research, and intervention.
 - c) feedback, change, and evaluation.
 - d) unfreeze, change, and refreeze.

6. To determine readiness for change in an organization, Gleicher has developed a formula that not only helps to clarify the important dimensions for consideration but how they interact as well. The formula is $C = abd^2R$ where C = change, a = level of dissatisfaction with the status quo, b = clear desired state for the organization, and d = the initial steps toward a desired state. R in the formula therefore represents
 - a) reactions to the desired state by organizational members.
 - b) cost of changing or resistance.
 - c) organizational members dissatisfaction with the reward system.
 - d) reaction to the change process.
7. The concept which describes best the OD consultant's approach is:
 - a) systems analysis.
 - b) social change.
 - c) socio-technical.
 - d) action research.
8. In assessing at the entry stage the feasibility of an OD effort, the best indication is whether
 - a) the client has a budget line available.
 - b) there is good interpersonal "chemistry" between the OD consultant and the client.
 - c) the client has enough power in the organization to take action.
 - d) the client will agree to support an evaluation of the project.
9. Once the OD practitioner has passed the entry phase of consultation the next activity is to
 - a) plan the specifics of the change effort.
 - b) explain the model she will use for diagnosis.
 - c) establish an agreement as to what will be expected of the practitioner and the client.
 - d) plan with the client how the OD effort will be evaluated.
10. As a part of the contracting phase of an OD effort, it is especially important to clarify for the client what he or she can expect from you, the consultant. It is just as important for you to:
 - a) specify what you expect from the client.
 - b) clarify what you expect the outcomes of your effort to be.
 - c) specify that you may need to bring in additional consultants/resources.
 - d) clarify those activities on your part or other aspects of the OD effort that are non-negotiable.
11. While a variety of methods for collecting information are used by OD practitioners, the most popular one is
 - a) questionnaire.
 - b) interview.
 - c) survey.
 - d) the annual report.

12. The best time to initiate discussions with the client about evaluation of an OD effort is during the
- a) contracting phase.
 - b) feedback phase.
 - c) action planning of the intervention phase.
 - d) time between feedback and intervention.
13. From among the following which leverage or motivation for change in an organization is probably the best?
- a) Providing a clear statement and vision of the desired change.
 - b) Appointing a manager who will be specifically responsible for managing the change effort.
 - c) Providing information that shows discrepancies between what is desired (or ideal) and what is (or actual).
 - d) Providing monetary rewards for behavior that helps to promote the desired change.
14. Assume that you are consulting with a client-manager who has never experienced an OD form of consultation before. You have conducted interviews with him and all of his direct-report subordinates. Your next step is to provide
- a) him with a private oral summary of the interview results.
 - b) him and his subordinates with a written summary of the interview.
 - c) him and his subordinates simultaneously with a written summary of the interview results.
 - d) the subordinates first with an oral summary of the interview results and then the manager.
15. Which of the following aspects of an organization is the OD Practitioner likely to consider most?
- a) Organization chart
 - b) Human resource development system
 - c) Informal organization
 - d) Intergroup relations
16. The most important objective of the feedback phase of OD consultation is to provide a process whereby
- a) action planning can occur.
 - b) diagnosis of the organization's problem can be clarified.
 - c) adequate discussion of the data can occur.
 - d) ownership of the data on the part of the client can be assured.
17. Typically when providing feedback in an organization development effort, which of the following events would not take place?
- a) Peers from several work groups meet
 - b) Top management decides which data to feed back to organizational members
 - c) Representatives of several hierarchical levels meet
 - d) The OD consultant discusses the data with organizational members

18. In diagnosing organizations OD consultants usually pay close attention to norms, those standards of conduct to which organizational members conform or from which they deviate to some degree. The primary reason for such close attention to norms is that they
- a) represent very clearly formal organizational patterns.
 - b) provide significant leverage for change.
 - c) reveal most clearly deviant behavior in the organization.
 - d) reflect the managerial hierarchy.
19. Which of the following is not directly revealed with the use of a survey questionnaire?
- a) Causes of problems
 - b) Effects of working conditions on attitude
 - c) Need for training
 - d) Nature of worker needs
20. A study of their time cards shows that 83% of the clerical workers at one office punch in late when returning from lunch. Which of the following approaches is most likely to improve the situation?
- a) Look for ways in which the late employees are psychologically different from the others.
 - b) Look for factors in the environment that may cause the workers to be late.
 - c) Inform the workers that excessive lateness will result in disciplinary action.
 - d) Offer a monetary bonus to those workers who display promptness.
21. Which of the following sets of skills most clearly distinguishes OD consultants from other (e.g., management) consultants?
- a) Organizational diagnosis
 - b) Interviewing
 - c) Process consultation
 - d) Analytical
22. A potential client, a manager in a large organization, calls you that he wants you to help him with an off-site meeting, the purpose of which is to help move his group of subordinates more toward a team instead of just a collective of individuals with separate jobs and responsibilities. He says "We must have more teamwork." The best response for you to make is to
- a) ask to interview all of his subordinates.
 - b) clarify with him your role.
 - c) say, "Let's work together to design the meeting."
 - d) ask him why he thinks he needs this meeting.
23. Argyris has 3 criteria for effective intervention. Which of the following is not one of his three?
- a) Valid information must be provided.
 - b) The client must have choice.
 - c) The client must be committed to the intervention.
 - d) The intervention must lead to cultural change in the organization.

24. Norms in an organization may be classified as either explicit or implicit. When dealing with norms one of the OD consultants' major objectives is to
- highlight explicit norms but not reveal implicit norms.
 - highlight implicit norms only
 - surface differences and contradictions between explicit and implicit norms.
 - point out similarities and mutual support between explicit and implicit norms not differences.
25. Kurt Lewin once said, in effect, the best way to understand a social system is to try to change it. This statement is most related to:
- contingency theory of organization design.
 - behavior modification.
 - open systems theory.
 - the consequences of a management information system.
26. Which of the following statements is probably the most valid?
- Successful managers have an above average need for power.
 - Successful managers have an above average need for affiliation and inclusion.
 - Successful managers operate primarily from a power base of coercion.
 - Successful managers rarely use consultants.
27. When considering the social factors in motivation, the most correct statement would be:
- the motivational value of a group decision comes primarily from the quality aspect of the decision.
 - the total motivation of the group is equal to the sum of its parts
 - participation often makes for interest, and interest is a form of intrinsic motivation.
 - group membership increases the group's productive effort.
28. Given the following organizational structure:



What problem is most likely to affect organizational performance?

- Interfunctional conflict
- Role ambiguity
- Career speculation
- Marketing and sales within the same unit

29. A force field analysis is
- a) an examination of process in a small group.
 - b) an examination of process in an organization.
 - c) a technique for analyzing a problem situation with change as a possible outcome.
 - d) a procedure for effective utilization of conflict.
30. As a consultant if you were attempting to help your client change organizational conditions that were contributing to high turnover rates, the most revealing source of data would be:
- a) resignations of satisfactory versus unsatisfactory employees
 - b) the number of discharges in relation to the number of resignations.
 - c) the number of separations compared with the number hired.
 - d) the rate of promotion of those who resigned compared with those who had more than average length of service.
31. Beckhard has stated that (1) there are 4 major purposes of team building and that (2) there is an optimal priority concerning the order of implementing these four purposes with organizational teams. Which of these four purposes has the lowest priority according to Beckhard?
- a) Improving interpersonal relations
 - b) Establishing and/or clarifying policies and procedures
 - c) Establishing and/or clarifying roles and responsibilities
 - d) Establishing and/or clarifying goals and objectives
32. Assuming the client organization is unionized which of the following interventions is most likely to draw attention from the union?
- a) Organization mirror
 - b) Team building
 - c) Job redesign
 - d) Survey feedback
33. In discussing with a client a proposed team building session, she presses you for what specific outcome she and her subordinates can expect from the meeting. Your best response is which of the following.
- a) "Outcomes of team building sessions are impossible to specify, but I assure you that I'll do all I can to help."
 - b) "Why don't we talk about the kind of outcomes you would like?"
 - c) "While I cannot guarantee specifics, I can assure you that you will feel positive about the overall outcome of the session."
 - d) "Improved trust among team members is the most likely outcome."
34. Chronic organizational stress on organizational members is most often caused by heavy work loads, lack of participation in decision making, poor human relationships, territoriality problems and by
- a) role ambiguity.
 - b) implicit norms.
 - c) close supervision.
 - d) very high standards for quality of work.

35. From an ethical perspective a risk of OD consultation is that:
- a) workers will control the organization more than the managers.
 - b) issues and problems will be surfaced and discussed, that is, catharsis will have occurred, and then management will do what they intended in the first place, or will not do anything.
 - c) productivity is likely, at least temporarily, to take a dip before it increases.
 - d) the client may feel that the cost-benefit ratio for the amount of energy and effort required is too imbalanced, i.e. too costly.
36. Which of the following most accurately describes the Scanlon Plan?
- a) Procedure for redesigning an organization's structure.
 - b) One among a number of different formats for human resource planning.
 - c) A financial incentive system based on employee participation.
 - d) A procedure for gradually reducing the impact of unionization on an organization.
37. Formal organization is to informal organization as managerial hierarchy is to:
- a) rewards.
 - b) structure.
 - c) organizational member's goals.
 - d) politics.
38. In working with a client you have jointly concluded from your organizational diagnosis of a computer programming department that some form of job redesign or job enrichment would be a beneficial intervention. You realize, however that, even though you are an experienced consultant you have had practically no experience in the area of job redesign. The best action for you to take under the circumstances is to
- a) delay the intervention slightly to give yourself a chance to study and prepare more adequately.
 - b) rely on the client to implement the intervention.
 - c) suggest that another more experienced consultant be brought in to help with this phase of the change effort.
 - d) tell the client to replace you with another consultant.
39. Your client indicates that part of the data that you the consultant have collected will be used as evidence to fire one of his subordinates. The appropriate step for you to take is to:
- a) confront him stating that if he takes such action you will withdraw from the contract.
 - b) tell him that this occurs sometimes in OD efforts and that you will remain neutral.
 - c) ignore the comment and make sure that you are uninvolved.
 - d) tell him that you feel awkward under the circumstances but that you will help him do the job.

40. Which dimension among the following affects organisational climate the most?
- Management systems
 - Structure
 - Strategy
 - Management practices
41. Which of the following objectives, at least from an OD perspective, should be an objective of MBO (management by objectives) as well?
- To build trust among individuals and groups throughout the organization.
 - To create an open problem-solving climate throughout the organization.
 - To make competition more relevant to work goals and to maximise collaborative efforts.
 - To increase self-control and self-direction for people within the organization.
42. You, an OD specialist, have been asked to conduct an offsite team building meeting and you've learned that the present team leader has just been fired. What action should you take?
- Try to arrange for the leader to remain in the job until the meeting is completed.
 - Demand to know why he was fired and why you were not involved or at least informed well in advance.
 - Conduct the meeting with the team but without the leader.
 - Temporarily withdraw from the contract and explain that it would be better to wait until the new leader is "on board."
43. Which all of the following sets of skills are important for an OD consultant to have, perhaps the most important set is:
- use of audio-visual aide skills.
 - oral presentation skills.
 - writing skills.
 - nonverbal skills.
44. One characteristic of group decision making in organisations is that:
- conformity decreases the quality of decisions.
 - groups may set higher production goals than management could impose.
 - solutions reached by a group are difficult to implement.
 - groups tend to set unrealistic production goals.
45. The best assurance for resolving conflict between groups or organisational units is for:
- provide a superordinate goal.
 - have the groups exchange perceptions of one another.
 - find avenues for compromise.
 - have representatives from the groups meet to negotiate the resolution.
46. Positive organisational climate is influenced most by:
- the geographical location of the organization.
 - whether the organization deals in services versus products.
 - its technological development.
 - the degree of participative management that is goal oriented.

47. The most difficult aspect of a large system change effort is
- a) determining the future plan for the organization.
 - b) managing the transition from the present to the future.
 - c) assuring the necessary budgetary support.
 - d) collecting valid data that will provide the basis for the future plan.
48. Highly successful organizations in the private sector are likely to be those that:
- a) have complex organizational structures.
 - b) are value driven.
 - c) consistently compensate their employees in the top quartile of their respective industry groups.
 - d) have highly efficient sub systems (departments, divisions, etc.).
49. One clear indication that an OD effort is progressing according to principles that underlie the field is that:
- a) the reward system becomes more individualized.
 - b) managers hold more group meetings.
 - c) organizational members express their feelings more often.
 - d) organizational members feel more in control of their destiny.
50. Ultimately, for an OD effort to have been successful what aspect of the organization will likely have changed?
- a) structure
 - b) managerial succession policy
 - c) strategy
 - d) values

APPENDIX H

BACKGROUND DATA

YOUR NAME: _____

1. Education: Circle number of years completed.

Junior High				Technical, Business School				Graduate College / School							
6	7	8	9	10	11	12	1	2	3	4	1	2	3	4	5

2. Sex: (circle one) Female Male

3. Age on your last birthday: _____

4. Are you currently enrolled in any educational courses at the college or university level? (circle one)

YES

NO

5. What is your current grade (rank)? (circle one)

E-4	E-5	E-6	E-7	E-8	E-9
O-1	O-2	O-3	O-4	O-5	O-6

INSTRUCTION: IF YOU ARE ENLISTED, PLEASE COMPLETE QUESTIONS 11-14. IF YOU ARE AN OFFICER, PLEASE COMPLETE QUESTIONS 6-10.

6. Total years commissioned service: _____

7. Year group: _____.
8. Warfare speciality/sub-specialty:
_____ / _____
9. Time in sub-speciality: _____ years _____ months
10. Source of Commission. (check one)
____ a. R.O.T.C.
____ b. O.C.S.
____ c. Academy
____ d. Direct Commission
____ e. Other (please specify) _____
11. Time in present grade (rank): _____ years _____ months
12. Time in service: _____ years _____ months
13. NEC: _____.
14. Time assigned to billet requiring NEC:
_____ years _____ months
15. On the job, as a consultant, my time has been spent in the following areas (assign a percentage to each area so your total equals 100%; zero% is not an inappropriate response):
- | | |
|---|---------|
| training | _____ % |
| work group facilitation
(e.g., transition workshops,
team building, role clarification, etc.) | _____ % |
| equal opportunity | _____ % |
| substance abuse | _____ % |
| complex systems projects | _____ % |
| TOTAL | 100 % |

APPENDIX H (con't)

SELECTED TABLES

Table 1

<u>Education Level</u>	
<u>Number of Subjects</u>	<u>Education Level</u>
17	High school
37	Some college
18	Bachelors
31	Masters or postgraduate

Table 2

<u>Overview of Age of Subjects</u>	
<u>Number of Subjects</u>	<u>Average Age in Years</u>
23	20-29
47	30-39
32	40-49
1	over 49

Table 3

<u>Title or Rank</u>	
<u>Number of Subjects</u>	<u>Title</u>
26	O-3, O-4
10	O-5, O-6
13	E-5, E-6
51	E-7, E-8, E-9
3	GS-12

Table 4

<u>Activity Allocation</u>	
<u>Area</u>	<u>Percentage Time Spent</u>
Training	27%
Work group facilitation	38%
Equal opportunity	8%
Substance abuse	3%
Complex systems projects	24%

APPENDIX I

RESULTS

Table 1

Stepwise Multiple Regression (Personality Characteristics Predicting Peer Rating)

Dependent Variable = PEER RATING

(Stepwise entry of independent variables by personality instrument)

Instrument
PERSONALYSIS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Blue Parent	.319	.102	1,90	10.19	.005
Yellow Parent	.405	.165	2,89	8.80	.005
Yellow Child	.460	.212	3,88	7.88	.005
Yellow Adult	.479	.229	4,87	6.47	.005
Blue Child	.486	.236	5,86	5.31	.005
Green Adult	.487	.237	6,85	4.41	.005
Green Parent	.488	.238	7,84	3.76	.005
Green Child	.489	.239	8,83	3.26	.005

Instrument
MYER-BRIGGS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
SN	.294	.087	1,90	8.53	.005
EI	.342	.117	2,89	5.90	.005
JP	.354	.125	3,88	4.25	.01

Instrument
16PF

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
H	.358	.128	1,90	13.21	.005
L	.428	.183	2,89	10.00	.005
M	.478	.229	3,88	8.69	.005
Q4	.529	.279	4,87	8.44	.005
F	.543	.295	5,86	7.20	.005

16PF (con't)

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
I	.548	.300	6,85	6.08	.005
B	.553	.036	7,84	5.28	.005
Q2	.557	.310	8,83	4.67	.005
A	.561	.314	9,82	4.18	.005
Q1	.563	.317	10,81	3.76	.005
Q3	.565	.320	11,80	3.42	.005
C	.567	.321	12,79	3.11	.005
N	.567	.322	13,78	2.84	.005

Instrument
FIRO-B

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Inclusion Expressed	.096	.009	1,90	.834	<.05
Affiliation Wanted	.136	.018	2,89	.833	<.05
Affiliation Expressed	.208	.044	3,88	1.33	<.05
Control Wanted	.231	.053	4,87	1.22	<.05
Inclusion Wanted	.235	.055	5,86	1.00	<.05

Table 2

Stepwise Multiple Regression (Reduced Number of Personality
Characteristics Predicting Peer Rating)

Dependent Variable = PEER RATING

(Stepwise entry of Independent variables by Personality
Instrument)

Instrument
PERSONALYSIS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Blue Parent	.319	.102	1,90	10.19	.005
Yellow Parent	.406	.165	2,89	8.79	.005
Yellow Child	.460	.212	3,88	7.88	.005
Yellow Adult	.479	.229	4,87	6.47	.005

Instrument
16PF

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
H	.358	.128	1,90	13.21	.005
L	.428	.183	2,89	10.00	.005
M	.478	.228	3,88	8.69	.005
Q4	.529	.279	4,87	8.44	.005

Instrument
MYERS-BRIGGS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
SN	.294	.087	1,90	8.53	.005
EI	.342	.117	2,89	5.90	.005

Table 3

Stepwise Multiple Regression (Using Knowledge Test Score and
Top Three Predicting Variables From Personalysis and 16PF to

Predict Peer Rating)

Dependent Variable = PEER RATING

(Stepwise Entry of Independent Variables)

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Knowledge	.506	.256	1,90	30.91	.005
Q4	.584	.341	2,89	23.05	.005
L	.624	.389	3,88	18.68	.005
M	.649	.422	4,87	15.86	.005
Yellow Child	.663	.439	5,86	13.48	.005
Yellow Parent	.671	.450	6,85	11.58	.005
Yellow Adult	.686	.471	7,84	10.66	.005
EI	.696	.484	8,83	9.75	.005
Blue Parent	.705	.497	9,82	9.00	.005
SN	.707	.500	10,81	8.09	.005
H	.709	.502	11,80	7.34	.005

Table 4

Stepwise Multiple Regression (Personality Characteristics
Predicting Superior Rating)

Dependent Variable = SUPERIOR RATING

(Stepwise entry of Independent Variable By Personality
Instrument)

Instrument
PERSONALYSIS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Blue Parent	.314	.099	1,90	9.87	.005
Yellow Parent	.388	.150	2,89	7.87	.005
Yellow Child	.395	.156	3,88	5.42	.005
Green Parent	.398	.159	4,87	4.10	.005
Yellow Adult	.400	.160	5,86	3.27	.01
Blue Adult	.401	.161	6,85	2.71	.025
Blue Child	.401	.161	7,84	2.30	.05
Green Child	.402	.161	8,83	2.00	<.05

Instrument
MYERS-BRIGGS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
SN	.379	.143	1,90	15.06	.005
JP	.391	.153	2,89	8.40	.005
TF	.395	.156	3,88	5.42	.005
EI	.399	.159	4,87	4.12	.005

Instrument
16PF

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
H	.244	.060	1,90	5.70	.025
L	.285	.081	2,89	3.93	.05
B	.318	.101	3,88	3.31	.05
M	.330	.109	4,87	2.65	.05
Q4	.335	.112	5,86	2.17	.05
Q1	.340	.116	6,85	1.86	<.05
O	.347	.120	7,84	1.64	<.05
N	.353	.125	8,83	1.48	<.05
C	.358	.128	9,82	1.34	<.05
G	.361	.130	10,81	1.21	<.05

Table 4 (con't)

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
F	.364	.132	11,81	1.11	<.05
A	.367	.134	12,80	1.02	<.05
Q3	.369	.136	13,79	0.95	<.05
Q2	.370	.137	14,78	0.87	<.05
E	.370	.137	15,77	0.81	<.05

Instrument

FIRD-B

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Inclusion					
Expressed	.251	.063	1,90	6.07	.025
Affiliation					
Expressed	.270	.073	2,89	3.50	.05
Control					
Expressed	.278	.082	3,88	2.62	<.05
Control					
Wanted	.293	.086	4,87	2.04	<.05
Inclusion					
Wanted	.294	.086	5,86	1.63	<.05

Table 5

Stepwise Multiple Regression (Reduced Number of Personality Characteristics Predicting Superior Rating)

Dependent Variable = SUPERIOR RATING

(Stepwise Entry of Independent Variables by Personality Instrument)

Instrument
PERSONALYSIS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Blue Parent	.314	.099	1,90	9.87	.005
Yellow Parent	.388	.150	2,89	7.87	.005
Yellow Child	.395	.156	3,88	5.42	.005
Green Parent	.398	.159	4,87	4.10	.005

Instrument
MYER-BRIGGS

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
SN	.379	.143	1,90	15.06	.005
JP	.391	.153	2,89	8.40	.005

Instrument
16PF

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
H	.244	.060	1,90	5.71	.025
L	.285	.081	2,89	3.93	.05
B	.318	.101	3,88	3.31	.05
M	.329	.108	4,87	2.65	.05

Table 6

Stepwise Multiple Regression (Using Knowledge Test Score and
Top Ten Predicting Variables to Predict Superior Rating)

Dependent Variable = SUPERIOR RATING

(Stepwise Entry of Independent Variables)

<u>Independent Variable</u>	<u>Multiple R</u>	<u>R Squared</u>	<u>D.F.</u>	<u>F</u>	<u>Significance Level</u>
Knowledge	.419	.175	1,90	19.14	.005
SN	.505	.255	2,89	15.25	.005
Yellow Parent	.520	.271	3,88	10.89	.005
JP	.536	.287	4,87	8.77	.005
Blue Parent	.541	.292	5,86	7.11	.005
L	.545	.297	6,85	5.99	.005
Green Parent	.549	.301	7,84	5.17	.005
B	.550	.302	8,83	4.49	.005
M	.550	.302	9,82	3.95	.005
Yellow Child	.550	.303	10,81	3.51	.005

Table 7

T-Test comparing means of the most predictive personality characteristics of the most effective consultants (Group 1) and the least effective consultants (Group 2).

Variable	Group	Mean	Std Dev	Pooled Variance Est.		
				T Value	D F	2-Tail Prob
Knowledge	1	15.1	5.4	-4.37	44	0.000
	2	22.1	5.5			
Yellow Adult	1	37.7	10.3	0.91	45	0.366
	2	34.6	12.8			
Yellow Parent	1	45.5	9.2	2.51	45	0.016
	2	37.6	11.8			
Yellow Child	1	26.4	10.0	1.55	45	0.129
	2	22.4	7.5			
Blue Parent	1	40.0	11.7	2.53	45	0.015
	2	32.0	10.0			
Green Parent	1	12.0	9.1	-2.44	45	0.019
	2	19.2	10.8			
EI	1	-1.4	26.3	0.19	46	0.365
	2	-7.5	19.9			
SN	1	-20.0	28.4	-3.28	46	0.002
	2	7.4	29.1			
JP	1	-20.0	28.4	-2.87	46	0.006
	2	17.3	26.3			
B	1	5.3	1.5	0.51	46	0.612
	2	5.0	1.7			
H	1	6.1	1.4	2.08	46	0.043
	2	5.2	1.8			
L	1	3.6	1.4	-3.47	46	0.001
	2	5.1	1.5			
M	1	5.5	2.0	1.53	46	0.133
	2	4.7	1.6			
Q4	1	3.9	1.9	-2.44	46	0.019
	2	5.2	1.8			

Table B

Correlation between superior's rating of a subordinate's effectiveness and the absolute value difference of individual personality traits.

Variable	Correlation Coefficient	P-Value
Blue Parent	.12	.26
L	-.07	.47
SN	-.07	.49
JP	.02	.80
Yellow Parent	-.15	.14
Yellow Child	.01	.89
Green Parent	-.10	.33
B	-.19	.08
M	-.20	.06

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