A STUDY OF THE RELATIONSHIP BETWEEN REHABIL-

ITATION COUNSELOR EFFECTIVENESS AND

SELECTED COUNSELOR VARIABLES

By

DAVID LEROY JEFFREY

Bachelor of Science
Oklahoma State University
Stillwater, Oklahoma
1963

Master of Science
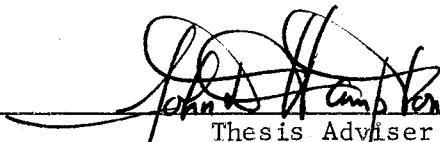Oklahoma State University
Stillwater, Oklahoma
1965

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
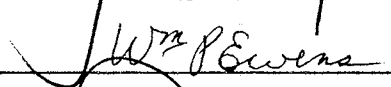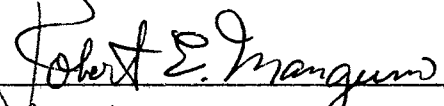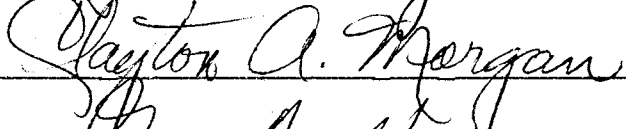DOCTOR OF EDUCATION
July, 1973

A STUDY OF THE RELATIONSHIP BETWEEN REHABIL-

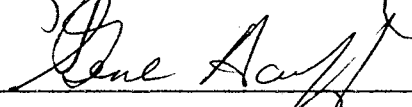ITATION COUNSELOR EFFECTIVENESS AND

SELECTED COUNSELOR VARIABLES

Thesis Approved:

_____
Thesis Adviser

_____

_____

_____

_____
Dean of the Graduate College

ACKNOWLEDGMENTS

This paper was made possible through the continued efforts of many people. Special thanks must go first of all to the members of my advisory committee: Dr. John D. Hampton, chairman; Dr. Clayton A. Morgan; Dr. W. P. Ewens; Dr. Robert Mangum; and Dr. F. Gene Acuff. Each member of this committee is distinctive in his own way as an adviser, an educator, an administrator, an individual. Without the continued guidance and support of these men, this thesis would not have reached its fruition.

Recognition must also go to the administrators and counselors of the Oklahoma Rehabilitative Service who volunteered their help and advice in providing the data for this research project. Their time is invaluable and I appreciate their sharing some of it with me.

Special acknowledgment must go to my wife, Kay, and to my children for their understanding and encouragement through times of accomplishment and times of adversity. Few people could ever truthfully know the importance of their contribution to this thesis.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

THE NATURE OF THE PROBLEM

Introduction

> Counseling is an intensely personal sort of activity. Again
> and again the results of research studies comparing methods,
> techniques, or theories run up against the fact that the
> differences between counselors are greater than any of these
> systematic differences in procedure. Successful outcomes
> seem to depend as much on what a counselor is as on what he
> says or does..." (Tyler, 1969, p. 196).

A number of studies in the field of counseling support Tyler's

statement that successful outcomes seem to depend as much on what a

counselor is as on what he says or does. Bergin (1967) reports that

"Those therapists who are more anxious, conflicted, defensive, or

'unhealthy' are least likely to promote change in their cases" (p. 409).

Combs and Soper (1963) support the hypothesis that "good" counselors

can be distinguished from "poor" counselors on the basis of certain

personal traits. Morgan (1969) adds support to the notion that the

counselor is a crucial variable in the outcome of counseling as he

states: "What we are is basic to the effective implementation of what

we do" (p. 3).

If success in counseling depends as much on what a counselor is

as on what he does as Tyler and others suggest, then it could be hy-

pothesized that there are certain measurable counselor variables which

are predictive of success in counseling within a certain range of

probability. Allen (1967) states: "There is almost unanimous agreement on the part of virtually every theorist in counseling that the personality of the counselor is one of the most crucial variables in determining the effectiveness of his counseling behavior" (p. 35).

In numerous studies, various personality traits of the counselor have been shown to contribute to his effectiveness. Many of these studies are discussed in Chapter II. A brief overview will show that Donnan, et al. (1969) demonstrated a relationship between the Sixteen Personality Factor Questionnaire and level of facilitative conditions (empathy, positive regard and genuineness); Demos and Zuwaylif (1966) found that the most effective counselors scored significantly different on five scales of the Edwards Personal Preference Schedule; Foulds (1969a) found support for the relationship between the scales of the Personal Orientation Inventory and a counselor's performance in a tape recorded interview. These studies are representative of the many studies which have supported personality traits as predictors of success.

Yet, as Allen (1967) points out, there have been several rather elaborate attempts to select counselors by means of personality characteristics which have failed. Rosen (1967), for example, investigated both personality and physical characteristics of counselors in his study of twenty-eight NDEA Counseling and Guidance Institute enrollees. In addition to personality measures obtained from the Allport-Vernon-Lindzey Study of Values, the Strong Vocational Interest Blank, the Edwards Personal Preference Schedule, and the Dogmatism Scale, Rosen incorporated into his study such physical characteristics as teaching experience, counseling experience and counselor age. Measuring

counseling competence by rating two counseling interviews, Rosen found

no significant relationships between counselor competence and physical

or personality characteristics.

Three recent major reviews of studies of counselor characteristics

(Patterson, 1967; Polmantier, 1966; Whiteley, 1969) have concluded that

findings in the literature are inconclusive, nonpredictive, and of

little practical value.

This apparent disparity between research results which support

personality characteristics as predictive of success in counseling and

those results which fail to find them significant predictors causes

counselor educators to hesitate to use measures of personality as

screening devices. In a study of thirty-one rehabilitation counselor

training programs, Patterson (1962a) found that the most commonly used

methods of selection were not interest, attitude or personality measures

as the theorists might suggest, but they were more academic measures.

Specifically, the five most preferred methods of selection were: 1)

undergraduate scholastic record; 2) personal interview; 3) recommenda-

tions; 4) previous course work; and 5) a scholastic aptitude test.

But neither can the selection of trainees in counseling be based

exclusively on the academic credentials of applicants. Joslin (1965)

compared the scores of thirty-nine NDEA Counseling and Guidance Insti-

tute enrollees on their comprehensive achievement test with their

ratings on tape recorded interviews. The consistently low correlations

between levels of knowledge and counseling competence make it difficult

to find support for academic credentials as important in counselor

trainee selection. Bergin (1967) also concludes that academic and

intellectual abilities should not be the sole basis for selection but

argues instead for an examination of personal adjustment as an effective criterion.

Thus the counselor educator has an unmet need as "...there appears to be no solidly validated procedure available to distinguish applicants who are well suited for counseling by virtue of their personalities from those who are not" (Allen, 1967, p. 35).

At this point it should be noted that the scope of the present study will be limited to rehabilitation counselors. The work of counselors in rehabilitation agencies is considered to be somewhat different from those in counseling centers, schools, and employment agencies (Sather, Wright and Butler, 1968). The 1970-71 edition of the Occupational Outlook Handbook states:

> Rehabilitation counselors are primarily concerned with the vocational and personal adjustment of physically, mentally and socially handicapped persons. The counselor interviews handicapped persons to obtain necessary information about their abilities, interests, and limitations. Information developed in the interviews is used with other medical, psychological and social data to help the handicapped person evaluate himself in relation to the kind of work that is suitable to his physical and mental capacity, interests, and talents. (p. 58)

This dissimilarity between rehabilitation counselors and counselors in other settings is perhaps due mainly to, 1) the emphasis on the medical aspect of working with the handicapped, 2) the fact that a rehabilitation counselor has funds with which to purchase services and/or training for his clients, 3) contact with employers and other members of the community, and 4) the holistic approach to counseling, utilizing the contribution of various professionals and integrating these contributions with those of his client into a total plan of rehabilitation.

That there are similarities as well as differences between rehabilitation counseling and other types of counseling is acknowledged. A rehabilitation counselor is first of all a counselor. It is this fact which allows us to generalize the results of studies which have been conducted with populations other than rehabilitation counselors. As shall be discussed in Chapter II, only a small amount of research has been conducted with rehabilitation counselors and much more is needed.

Statement of the Problem

Not enough is known on the basis of scientific research about those characteristics of effective rehabilitation counselors which will be helpful to counselor educators and rehabilitation agency administrators in identifying those applicants who will later perform as effective rehabilitation counselors. There is a considerable amount of research in which counselor characteristics have been demonstrated to correlate significantly with counselor effectiveness in various settings. These studies provide evidence to support the notion that certain characteristics can also be identified in rehabilitation counselors which will be helpful in comparing and selecting rehabilitation counselor trainees.

Empirical and Theoretical Foundations

Of particular interest in the study of potential predictors of success in counseling were the consistently positive correlations reported between the particular personality characteristics associated with self-actualization as measured by the Personal Orientation Inventory (POI) and various criteria of counseling effectiveness (Shostrom

and Knapp, 1966; Foulds, 1969 a, b, c; Graff and Bradshaw, 1970; Graff, et al., 1970; Melchers, 1972). These results seem to support the suggestions of Arbuckle (1968) and Maslow (1954) that perhaps the more self-actualized counselor is more capable of effecting positive change in his clients.

Another consistently positive correlate of effectiveness has been various measures of tolerance of ambiguity (Bare, 1967; Brams, 1961; Gruberg, 1967; Whiteley, et al., 1967). The value of this quality may lie in its ability to stimulate increased communication between counselor and client as Bordin (1955) and Blocher (1966) suggest. Minimum tolerance of ambiguity by the counselor may lead him to the continued use of the "yes" and/or "no" questions which severely limits the client response to a choice of two monosyllables (Blocher, 1966).

Another consistently strong relationship that exists between counselor characteristics and effectiveness (especially with rehabilitation counselors) has been selected biographical items. Bozarth, et al. (1968), and the combined efforts of Atlas and Mueller (1969; Mueller and Atlas, 1969; Mueller and Atlas, 1970), among others, have demonstrated that such items as level and kind of education and amount of experience in rehabilitation can be discriminators of the "most" and "least" capable counselors.

When discussing "effectiveness" of counselors, one is almost immediately confronted with the challenge of how to measure effectiveness - the crucial criterion measure. Supervisor ratings were chosen as the dependent variable in this study - specifically, the rating of supervisors on the Rehabilitation Counselor Rating Scale (Muthard and Miller, 1968). The instrument itself will be discussed in more detail in

Chapter III. The reason for selecting supervisors ratings as the cri-
terion is that it is thought that the supervisor can give a more ac-
curate picture of the effectiveness of a counselor than any other
presently known measure. This is especially true in rehabilitation
counseling. Client ratings would only tap approximately one-third of
the rehabilitation counselor's total activities according to Rusalem's
(1951) results. The remainder of his work is spent in dealing with
other professionals, with prospective employers, and in other activi-
ties on his client's behalf. The supervisor would be one person who
would be able to see his counselors in action in a variety of situa-
tions.

Basic Questions Posed for This Investigation

The preceding discussion and brief summary of the research in the
area of rehabilitation counselor effectiveness and its possible corre-
lates leads to the formulation of one fundamental question to be
investigated in this study as well as several specific questions. First
of all, are there characteristics of rehabilitation counselors which
can be measured and which can be shown to correlate with a counselor's
job performance as rated by his supervisor? More specifically, are
there significant positive relationships between the specific character-
istics associated with self-actualization and a rehabilitation coun-
selor's effectiveness? Also, does a rehabilitation counselor's level
of tolerance of ambiguity relate significantly with his effectiveness?
And finally, what biographical data, if any, demonstrate significant
relationships with effectiveness?

Need for This Study

One of the biggest challenges in recruitment and selection
of personnel who are to become rehabilitation counselors
is research that will help to establish what traits are
most useful in helping persons who, being disabled, are
limited in their opportunities, knowledge, skills, and abil-
ities to cope with the demands for more appropriate function-
ing and to make satisfying adjustments in living more fully.
(McCauley, 1972, p. 30).

If several selected counselor variables could be identified which

correlate positively and highly with rehabilitation counselor effective-

ness, several important advantages might be gained:

1. Rehabilitation counselor educators would have a more valid
   means of selecting their counselor trainees.

2. State and private rehabilitation agencies would have a more
   valid means of selecting new counselors.

3. Clients of the rehabilitation agencies would be better served
   through more effective rehabilitation counselors.

4. State and private rehabilitation agencies would have a strong-
   er, more effective program.

Definition of Terms

For the purpose of this investigation, the following terms and

definitions will be employed:

1. Oklahoma Rehabilitative Service: A division of the Oklahoma
   Department of Institutions, Social and Rehabilitative Services
   whose major responsibility is to help those persons in the
   State of Oklahoma who are vocationally handicapped by physical,
   mental or emotional disabilities. Services are provided to
   help these persons overcome the obstacles to gainful employ-
   ment and personal adjustment.

2. Personal Orientation Inventory (POI): A multidimensional in-
   ventory which is designed to measure "...positive mental
   health as reflected in concepts of self-actualization...The
   POI consists of 150 two-choice comparative value judgment
   items reflecting values and behavior seen to be of importance
   in the development of the self-actualizing individual. (Knapp,
   1971).

3. Personality Characteristic: This term is used interchangeably with personality trait and is defined by English and English (1958) as: "An enduring disposition or quality of a person that accounts for his relative consistency in emotional, temperamental, and social behavior."

4. Rehabilitation Counselor: A full-time employee of the Oklahoma Rehabilitative Service who is charged with the responsibilities and duties of providing services to his clients under the rules and policies of that agency.

5. Rehabilitation Counselor Rating Scale (RCRS): A rating form for use in evaluating the performance of rehabilitation counselors employed in state vocational rehabilitation agencies.

6. Supervisor: A full-time employee of the Oklahoma Rehabilitative Service whose responsibility is to supervise two or more rehabilitation counselors.

7. Tolerance-Intolerance of Cognitive Ambiguity (TICA): A paper and pencil test designed to measure a subject's level of tolerance of ambiguity or need to structure. The test consists of 16 pictures of adult males and females, any, all or none of which may be matched with 16 statements. Subjects are asked to indicate their degree of certainty for each match they chose.

Assumptions

1. Some rehabilitation counselors are more effective than others; the Rehabilitation Counselor Rating Scale demonstrates an ability to indicate greater or lesser degrees of effectiveness.

2. The Personal Orientation Inventory does discriminate and measure characteristics of self-actualization as defined by Maslow and others.

3. The Tolerance-Intolerance of Cognitive Ambiguity test is capable of measuring tolerance of ambiguity.

4. Rehabilitation counselors as a group will report biographical information correctly.

Limitations

1. The ratings of rehabilitation counselors by their supervisor will be colored to a certain degree by personal bias.

2. Any conclusions drawn from this study will be applicable to the population of rehabilitation counselors only to the degree that the sample is representative of rehabilitation counselors in general.

Summary

The selection of candidates for rehabilitation counselor trainees is an important step in supplying effective counselors for rehabilitation agencies. At present not enough is known about the characteristics of effective rehabilitation counselors to compare and select candidates for training programs who are judged to have the potential to be effective rehabilitation counselors. The present study examines the relationship between rehabilitation counselor effectiveness and certain selected counselor variables thus suggesting a valid means for trainee selection. These variables include: 1) a measure of self-actualization, 2) a measure of tolerance of ambiguity, and 3) certain biographical information. These data will then be correlated with the rehabilitation counselor's effectiveness as rated by his supervisor. The research method and a discussion of the instruments used will be presented in Chapter III.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Chapter II presents a selected review of the literature. A brief
overview of the research in the area of counselor characteristics will
be presented, to be followed by a more comprehensive look at literature
related to the correlation of counselor characteristics and effective-
ness. The rationale and research supporting the choice of the specific
variables to be investigated in this study will be the third major
division of the chapter. Next, a rationale for the study of rehabili-
tation counselors as a unique population will be presented. This dis-
cussion will be followed by a presentation of the literature relating
to the validity of using supervisor's ratings of effectivnesss as a
criterion measure. The chapter will close with a summary of the liter-
ature presented and the observations and conclusions of the author.

Counselor Characteristics

Personality characteristics of counselors and counselor trainees
have served as targets of researchers for a number of years. The
reason for their interest is clear. The potential dividends of finding
that unique trait or pattern of traits which will identify the poten-
tially successful or effective counselor are appealing to the

researcher. Studies have ranged from simple descriptive surveys using the counselor's own opinion of himself or utilizing one measuring device, such as Eddy's (1960) research with rehabilitation counselors using the Strong Vocational Interest Blank, to investigations of "effective" or "good" counselors that employed multiple measuring devices.

Several studies have focused upon counselor characteristics without regard for the relative effectiveness or ineffectiveness of the counselors being studied. In the investigation mentioned above, Eddy (1960) employed as subjects 638 rehabilitation counselors who had been on the job for three years or more and who expressed satisfaction with their work. The subjects were administered the Strong Vocational Interest Blank (SVIB) and then were compared as a group with other occupational patterns. It was found that there was a high correlation with the occupational patterns of personnel manager, city school superintendent, social service, teacher and minister. The correlation with the pattern for psychologists was low. In another investigation of rehabilitation counselors' interest, DiMichael (1949) secured the Kuder Preference Record (Vocational) scores from 146 male counselors from 14 states. The three areas showing consistently high scores were: social service, persuasive and literary.

Using the Vocational Values Inventory, Collins and Smith (1964) studied 60 individuals who were employed by the Missouri Division of Vocational Rehabilitation. They found that counselors in their sample held the following values: self-realization, altruism, job freedom and control.

In a more comprehensive study of rehabilitation counselor trainees,

Patterson (1962b) reviewed results from several tests (Miller Analogies Test, Edwards Personal Preference Schedule, Minnesota Multiphasic Personality Inventory, Strong Vocational Interest Blank, and the Kerr-Speroff Empathy Test), Subjects were approximately 550 graduate students in rehabilitation counseling in 20 schools. On the Miller Analogies Test, the sample scored at the 80th percentile of the norms for education students at master's degree-granting institutions, but at the 15th percentile for psychology students. The women on the Kerr-Speroff Empathy Test scored at the 70th percentile for liberal arts women, while the men scored between the 50th and 55th percentile for liberal arts men, The greatest deviations from the norms for the women on the Edwards Personal Preference Schedule were for Intraception (74th percentile as compared to college students) and Abasement (24th percentile). For the men, Intraception was again high (79th percentile) as was Deference (72nd percentile) and Nuturance (70th percentile). The MMPI profiles tended to be similar to college students in general. The K score was elevated as were the MF (Masculinity-Femininity) and the Ma (Hypomania) scores. Si (Social Introversion) was low, High scores for the men on the SVIB formed an occupational pattern similar to Clinical Psychologist, Guidance Counselor, and Social Worker. For females the best match was Social Worker. Patterson says that those personality characteristics which would seem to be desirable in counselors are stronger in rehabilitation counselor trainees than in college students in general,

In another study of counselor characteristics, Brams (1961) administered the following instruments to twenty-seven counselor trainees during the first half of their counseling practicum course at the

University of Missouri: the MMPI, the Taylor Manifest Anxiety Scale

(MAS), the Index of Adjustment and Values (IAV) and the Berkeley Public

Opinion Questionnaire (POQ). While there were other important findings

from Brams' investigation, the most important finding to consider at

this point is Brams' comparison of the MMPI scores of his subjects and

those reported by Cottle and Lewis (1954) on a sample of sixty-five

male college counselors. Brams states:

> Both groups appear to exert themselves to make good impres-
> sions on others, they are somewhat defensive in their behavior,
> they are sensitive in their dealings with others, and they
> appear relatively outgoing in their interpersonal relation-
> ships. (pp. 28-29).

In a more recent study, Miller and Roberts (1971) describe the

characteristics of 328 rehabilitation counselors based on their scores

on Wonderlic Intelligence Test, the Adjective Check List, and the

Minnesota Importance Questionnaire. They summarize their results by

stating:

> ...our typical counselor does not differ in intelligence from
> the average college graduate and...he is a fairly sensitive
> and self-confident individual who wants to help people and
> would initiate and carry through a plan of action to a success-
> ful completion. Conversely he appears to place little value
> on assuming authority or deriving social status from his
> activities. (p. 6).

Counselor Characteristics and Effectiveness

All of the research reported to this point has been descriptive

and none of the investigators has attempted to inquire into character-

istics associated with counseling effectiveness as contrasted with

ineffectiveness. Are there characteristics by which the effective

counselor can be distinguished from his ineffective colleague?

Arbuckle (1956) investigated the characteristics of counselor trainees who had been selected by their classmates as persons they would seek out when they wanted a counselor, as compared with those who were rejected. A group of 70 counselor trainees were asked to select in order of preference, 1) the three people in their group they would be most likely to go to for counseling, 2) the three people they would least likely go to for counseling, 3) the three traits they would most like to find in counselors, and 4) the three traits they would least like to find in counselors. It was found that the trainees most frequently chosen by their peers had a higher degree of confidence as measured by the Heston Personality Inventory, were more normal as measured by the MMPI, and scored highest in the areas of social serivce, persuasive, and literary on the Kuder Preference Record, Vocational Form.

In another study in which counselor trainee's effectiveness was judged by their peers, Stefflre, King and Leafgren (1962) found significant results. The forty members of a one-semester NDEA Counseling and Guidance Training Institute completed a Q-sort to identify those nine most often preferred peers and the nine least often preferred trainees. These two groups, the "effective" and the "ineffective" counselors, were then compared on the basis of several measures. Surprisingly, there was a significant difference in academic aptitude and performance between the "effective" and "ineffective" counselors as measured by MAT scores, GPA, and various institute examinations. The effective group differed from the ineffective group in the scores of the Social Welfare scales of the SVIB. Scores on the EPPS suggested significantly higher Deference and Order needs for the effective than for the ineffective

group and significantly lower Abasement and Aggression needs. Effective counselors seemed to underestimate themselves.

Combs and Soper (1963) reported their investigation of twenty-nine members of a year-long NDEA Counseling and Guidance Training Institute. The fourteen faculty members who taught the trainees and supervised them rank ordered the trainees from best to worst. The faculty then employed a seven-point scale to blind rate a counselor trainee's "ways of perceiving" as indicated by four human-relations incidents written by the trainees. Results disclose that good counselors can be distinguished from poor ones on the basis of their characteristic ways of perceiving self, other people, the purpose of counseling, and general orientation.

Scores on the California Psychological Inventory (CPI), the EPPS, the MMPI, the Guilford-Zimmerman Temperament Survey (GZTS), and the SVIB were correlated with three criterion measures in a study reported by Johnson, Shertzer, Linden and Stone (1967). The scores of ninety-nine counselor candidates on these standardized instruments were correlated with counseling effectiveness as rated by peers, practicum supervisors and counselors. All three measures of effectiveness indicated that effective male subjects could be characterized as confident, friendly, affable, accepting, and likeable. They are generally satisfied with themselves and their surroundings. Further, they are honest, conscientious, cooperative, outgoing, sociable, warm, efficient, capable, verbally fluent, resourceful, and concerned with being liked and accepted.

Donnal, et al. (1969) studied the relationship between the sixteen factors of the Sixteen Personality Factor Questionnaire (16PF) and

level of functioning on 1) unconditional positive regard, 2) empathic understanding, 3) congruence, and 4) trust. Subjects were 22 counselors who counseled with 880 prospective college freshmen. After three counseling sessions, each counselee was asked to rate his counselor on each of the above-mentioned characteristics using the Relationship Inventory. The 16 PF scores were effective in discriminating between counselors rated as high (upper 50%) and low (lower 50%) in each of the Relationship Inventory variables. Four factors of the 16 PF were found to correlate significantly with one of the client-rated variables. These significant correlations are: 1) Factor A (warm, sociable) with unconditional positive regard (p <.01); 2) Factor C (mature, calm) negatively with congruence (p <.05); 3) Factor H (adventurous, socially bold) with trust (p <.05); and 4) Factor I (tender-minded, sensitive) with congruence (p <.05).

In a similar study Demos (1964) disclosed that of the 30 experienced counselors in an NDEA Institute, those counselors designated as most successful by their supervisors were rated significantly higher by a panel of ten judges on empathy, unconditional positive regard and respect than those counselors designated least successful.

The same author was the primary investigator in a study of 30 secondary school counselors in which it was reported that those counselors rated as most effective by their NDEA institute supervisors differed significantly (p <.05) in regard to their scores on five scales of the EPPS from those counselors rated least effective (Demos and Zuwaylif, 1966). The Allport-Lindsey Study of Values and the Kuder Preference Record indicated no significant relationship with the criterion measurement.

"Psychological Openness" was studied by Allen (1967) as a possible correlate of effectiveness. Using twenty-six graduate students at Harvard, Allen found a significant correlation (p <.01) between the Rorschach Index of Repressive Style and supervisory rated effectiveness. Allen suggests that the effective counselor is a person who is on relatively good terms with his own emotional experience and that the ineffective counselor is one who is relatively uneasy in regard to the character of his inner life.

Cognitive flexibility was investigated as a possible dimension of counselor effectiveness by Whitely, et al. (1967) with a sample of 19 students in an EdM class in guidance. Cognitive flexibility was viewed as the "...ability to think and act simultaneously and appropriately in a given situation..." and refers to "...dimensions of open mindedness, adaptability, and a resistance to premature closure." The projective tests, Rorschach and Thematic Apperception Test (TAT) were administered early in the training program. The Personal Differentiation Test (PDT) was developed as a nonprojective measure of cognitive flexibility. A counselor rating scale was used by the students' supervisor to determine effectiveness. The major finding of this study was that cognitive flexibility-rigidity, as predicted on the basis of projective tests, demonstrated a "reasonably high positive relationship [r = .78, p <.005] to supervisor ratings on the same dimension." A secondary finding of the study was that the traditional methods of selecting graduate students - the MAT and Graduate Examination - correlated only .09 with supervisor's rating of effectiveness. The PDT scores did not show a significant correlation with the criterion variable.

Jackson and Thompson (1971) predicted that counselors rated high on effectiveness by their practicum supervisors would be 1) more cognitively flexible, 2) more tolerant of ambiguity, and 3) have more positive attitudes toward self, most people, most clients, and counseling, than those counselors rated low. Seventy-three former NDEA Guidance Institute trainees were rated as "excellent", "average", or "poor" by their former supervisors. Cognitive flexibility was measured by rating responses to two case episodes. Hanson's modified version of Budner's Intolerance-Tolerance for Ambiguity Scale was used to measure the counselor's tolerance for ambiguity. The semantic differential was used to measure counseling-related attitudes. Results failed to support the expected correlation between effectiveness and 1) cognitive flexibility, and 2) tolerance of ambiguity. The third hypothesis was supported.

Passons and Olsen (1969) studied thirty NDEA institute enrollees, searching for significant correlates of "empathic sensitivity" as rated by their practicum supervisors. Openmindedness as determined by scores of the Rokeach Dogmatism Scale failed to correlate significantly. Cognitive flexibility was measured by the Color-Word Test. This dimension too, failed to reach significance. The ability to sense feelings and willingness to communicate in the realm of feelings, both measured by peer ratings, did correlate significantly (p <.05 and <.01 respectively) with the criterion variable. The Total Positive (P) score of the Tennessee Self-Concept Scale failed to support the hypothesis that positive self-concept was an important variable in the level of empathic sensitivity. Perhaps the importance of this study lies in its failure to replicate others' findings.

Walton and Sweeney (1969) after a thorough search of the liter-
ature point to the Rokeach Dogmatism Scale (a measure of openminded-
ness) as one of the most promising predictors of counselor
effectiveness, yet Passons and Olsen were unable to demonstrate support
for the RDS as an effective predictor. The EPPS and some measure of
tolerance of ambiguity are also suggested as having much promise as
good predictors. Listed as non-predictive indicators of counselor
effectiveness are: GPA, MAT, MMPI, DAT and GATB, and the Taylor
Manifest Anxiety Scale.

As we have seen, the research evidence is not clear on any of
these variables as consistently predicting success or effectiveness.
Several standardized instruments have been used in the studies reported
thus far but none seem to emerge as consistent predictors of effective-
ness. Is it any wonder that after reviewing seventy articles on the
subject, Polmantier (1966) concluded that it was impossible to accurate-
ly prescribe the personality of the counselor? It should not surprise
us to read from Shertzer and Stone (1971):

> An overriding conclusion to be drawn from a review of the
> literature pertaining to interests and personality character-
> istics and counseling effectiveness is that the findings so
> far have been inconclusive and often conflicting and that
> additional research is needed. (p. 158).

Toward a Choice of Variables to be Studied

Though Polmantier (1966) was rather pessimistic in his conclusions
regarding the results of his literature survey, he did hold out some
hope as he stated, "Some personal characteristics afford real hope of
being among those that, when brought together in a person, affect
counseling and its outcome advantageously" (p. 95).

Polmantier summed up his observations about the personal char-
acteristics which make a difference in ten statements. Seven of the
ten statements are appropriate for the present study and are abstracted
as an introduction to the variables which were investigated.

1. The counselor should be able to fill a professional position
   based upon demonstrated competence in his field.

2. He should be an intelligent person, possessing verbal and
   quantitative abilities sufficient to think, reason, and solve
   problems with logic and perception.

3. He should have interests that reveal a desire to work with
   people but are scientific enough to consider and utilize
   the science of individual and social behavior.

4. He should manifest an acceptance of self. Humanness and
   decency, coupled with a recognition of the feeling aspects
   of his own life should be made manifest in his emotional
   stability.

5. He must have some value commitments and understand and recog-
   nize them as they influence his counseling behavior.

6. He must have tolerance for ambiguity.

7. He must be flexible enough to witness, understand, and deal
   psychologically with all kinds of human behavior without
   mustering authority or social pressures to force his client
   to conform.

Polmantier has set forth an example in the foregoing statement of

the sort of personal characteristics which could make a difference in

an individual's effectiveness as a counselor. Rather than descriptive

characteristics, reported by most standardized personality measures,

which attempt to isolate single traits or a single personality type

which is uniquely well-suited to counseling, research results indicate

that the individual counselor's own acceptance of self, personal adjust-

ment, or self-actualization (regardless of what personality type he may

represent) is more basic to his relative ability or inability to be

effective. Is this why counselors with dissimilar personalities may

approach the same client in different ways with equally favorable

results as Tyler (1961) suggests?

Maslow (1954) states that the personality or character structure

of the counselor or therapist is, "...if not all important, certainly

one of the crucial considerations...In a word, he should be emotionally

secure and he should have healthy self-esteem." (pp. 319-320). Note

that Maslow uses the term "personality structure" rather than char-

acteristics or traits. English and English (1958) define personality

structure as "...the unity that underlies individual ways of behaving,

giving consistency to otherwise contradictory-seeming traits or

behaviors..." (p. 384).

Because of the inconsistency and inconclusiveness of research

results reported in the literature, perhaps it might be better to

abandon the trait-factor approach characteristic of these studies to

focus on the personality or character structure of counselors. Rather

than effectiveness correlating with specific personality traits, per-

haps the important variable is how well an individual develops and

utilizes all of his unique capabilities or potentialities, free of in-

hibitions and emotional turmoil. Such is the description of the more

self-actualized person (Shostrom, 1966). Is self-actualization the

"unity that underlies individual ways of behaving" which facilitates

positive change in clients?

Self-Actualization and Counselor Effectiveness

That self-actualization and positive mental health are critical to

the effective counselor is attested to in many of the professional

articles in the field of counseling. Arbuckle (1968) argues for the

education of counselors which will lead not to a more knowledgeable
and skilled technician, but to a more human and self-actualized indi-
vidual. In the words of another theorist: "Since psychotherapists
are effective partly as a function of personal adjustment, they should
be selected for this quality and not solely on the basis of academic
and intellectual qualities." (Bergin, 1967, p. 409).

In the field of rehabilitation too, the importance of self-
actualizing characteristics is supported. McPhee, et al. (1969) and
Seidenfield (1962) specifically call for positive mental health char-
acteristics such as self-acceptance, self-confidence, sensitivity, and
awareness of one's own biases and prejudices. These and other self-
actualizing traits are consistently held forth as essential elements
of the effective counselor.

Empirical research also supports self-actualization as a crucial
variable in counselor effectiveness. Foulds (1969c) used thirty grad-
uate students enrolled in practicum to study the relationship of self-
actualization, as measured by the Personal Orientation Inventory (POI),
and facilitative genuineness as determined by the ratings of two ex-
perienced judges on the Facilitative Genuineness in Interpersonal
Process (G) scale. The top twenty-seven percent of the students rated
on G were regarded as the "high" genuineness and the lower twenty-seven
percent of the subjects were regarded as the "low" genuineness group.
The mean scores of the high group on the POI were then compared with
the mean scores of the low group. Significant differences (p <.05 or
below) occurred on seven of the twelve scales of the POI. Specifically,
the high genuineness group scored significantly higher on the following
scales of the POI: 1) I - reactivity orientation is basically toward

self rather than others; 2) SAV - affirmation of values held by self-actualizing persons; 3) EX - ability to situationally or existentially react without rigid adherence to principles; 4) Fr - sensitivity of responsiveness to one's own needs and feelings; 5) Sa - acceptance of self in spite of weaknesses or deficiencies; 6) A - ability to accept one's natural aggressiveness; and 7) C - ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations.

The same author in another report, using the same subjects in a different procedure (Foulds, 1969b), disclosed the results of a comparison of POI scores with the ability to communicate accurate empathy, genuineness, and respect. The subjects were again rated by two judges on each variable. It was found that the level of empathy (E) correlated significantly (p <.05) with six of the twelve scales of the POI. Genuinness (G) was found to correlate significantly with ten of the twelve scales of the POI, and no POI scales were significantly related to ability to communicate respect or positive regard (R). The evidence of this investigation demonstrates rather clearly that self-actualized individuals (as measured by the POI) possess a higher level of ability to communicate genuineness and empathy.

In a third investigation, Foulds (1969a) again found significant correlations between seven of the twelve scales of the POI and the facilitative conditions of genuineness, empathy, and, in this study, respect or positive regard. The thirty graduate students were judged on a tape-recorded interview and their scores on the POI were correlated with their level of empathy, genuineness and respect. These investigations led Foulds to conclude that there is some support for the

theorized relationship between self-actualization (as measured by the

POI) and counselor effectiveness. Foulds (1969a) speaks quite clearly

on the essence of his findings:

> The results disclose that the counselor's ability to sensi-
> tively and accurately understand the client and his 'inner
> world' and to respond to him empathically in a way that
> communicates this understanding, to communicate positive
> regard, respect, valuing, a deep caring, and a non-possessive
> warmth, and to communicate his own congruence, genuineness,
> authenticity, nondefensiveness, or integration to the client
> seems to be related to his own level of personal functioning
> or self-actualization. (p. 91).

Apparently Foulds feels he is able to support with scientific research

what has been theorized for some time.

The importance of these findings by Foulds is intensified by an

understanding of the critical importance of the criterion measures. To

the statement that Foulds demonstrated a significant relationship be-

tween self-actualization (the POI) and empathy, respect and genuine-

ness (ERG), one might easily ask, "So what?". To answer this question,

one need only look at the work of Truax and Carkhuff (1967), Truax,

Wargo, et al. (1966), Berenson and Carkhuff (1967), and Truax and Wargo

(1966) as examples of the scientific evidence which supports ERG as

critical variables in a helpful (as opposed to a harmful) relationship.

Perhaps Leslie and Truax (1968) sum it up best when they state:

> At the present time there are over 100 separately controlled
> research studies showing that empathy, warmth [or respect]
> and genuineness, depending upon their relative presence or
> absence, lead to positive or negative behavioral change.
> (p. 1).

Thus by demonstrating a significant relationship between self-

actualization and level of ERG, Foulds has bonded two important strains

of research on counseling effectiveness. On a second-order level,

Foulds has demonstrated a direct relationship between the

self-actualization of the counselor and client gain. His findings are therefore significant to any research in the area of counselor effectiveness.

In another use of the POI, Graff and Bradshaw (1970) investigated the relationship between self-actualization and dormitory assistant effectiveness. Seventy-one dormitory assistants were administered the POI. Students and personnel deans were then asked to rate the dormitory assistant on effectiveness. The findings suggest that the Inner Directed, Self-Actualizing Value, Spontaneity, and Acceptance of Aggression scales of the POI predicted effectiveness when using student's ratings as the criterion. The Capacity for Intimate Contact and the four scales of the POI listed immediately above were the primary scales of the POI which predicted effectiveness when using personnel deans' ratings. Graff, et al. (1970) later replicated these findings using the same procedure.

In a more recent study, Melchers (1972) administered the POI to forty-nine graduate students enrolled in an introductory counseling practicum course. Students were then rated by their supervisors on the Counselor Effectiveness Rating Scale developed by the investigator for this study. As a result of this rating, the students were divided into a "more effective" group and a "less effective" group. It was found that the two groups differed significantly ($p < .05$) on the Inner Directedness and Self-Actualizing Values scales of the POI. Less pronounced but still significant ($p < .10$) differences were also found on the POI scales measuring Feeling Reactivity, Self-Acceptance, Synergy, and Capacity for Intimate Contact. Thus, six of the twelve scales of the POI showed significant relationships with counselor effectiveness.

The positive results of the foregoing studies are tempered, however, by the findings of Trotter, Uhlig and Fargo (1971). Using twenty-one rehabilitation counselors as subjects, these investigators attempted to determine the degree of relationship between counselor effectiveness and degree of self-actualization as measured by the POI. None of the independent subtests of the POI correlated with the criterion measure of success, percentage of case closures per caseload. However, the combination of three variables (Capacity for Intimate Contact, Time Competence and Self-Acceptance) produced a multiple predictor (R) of .476. Trotter, et al. took this to provide evidence in support of their hypothesis that the POI is an effective discriminator between effective and ineffective counselors when efficacy is judged on the basis of percentage of case closures per caseload.

Overall, the characteristics related to self-actualization would seem to be important in the relative efficacy of the counselor. In counseling-related areas, Knapp (1971) reports:

> The POI has been used in studies reported in over 50 published articles and 60 unpublished reports and dissertations involving a wide diversity of subjects including businessmen, college students, felons, ministers and nurses and a great variety of criteria such as college achievement, time in therapy, and counseling and teaching effectiveness. The great number of studies in which significant relationships have been obtained between POI scales and criteria testify to the social relevance of concepts of self-actualization measured by the POI. (p. 17).

Thus the characteristics related to self-actualization would seem to be important in the relative efficacy of the counselor.

Tolerance of Ambiguity and Counselor

Effectiveness

A second variable demonstrated to be critical to counselor effectiveness is the individual's tolerance-intolerance of ambiguity. Tolerance of ambiguity is defined by Blocher (1966) as

> ...the ability to handle cognitively or affectively complex or ambivalent situations. It is the ability to make qualified judgments, to think in both-and rather than either-or terms in complicated situations or where sufficient evidence is unavailable. (p. 64).

Research has demonstrated a positive relationship of tolerance of ambiguity with counselor effectiveness. Bare (1967) collected data over a two year period on forty-seven counselors in a graduate training program at UCLA. Using scores on the Gordon Personal Profile, the Gordon Personal Inventory, and the EPPS as independent variables, she compared counselor personality characteristics with client ratings of counselors. Results indicated that the counselor who shows tolerance for a lack of structure (order need) received significantly higher client ratings on empathy and the ability of the counselor to get to know the client.

In a study reported earlier, Brams (1961) tested twenty-seven counselor trainees during their practicum course and found that effective communication in counseling interviews as rated by the subject's peers, supervisors and clients was positively related to the subjects' tolerance of ambiguity, as measured by scores on the Berkeley Public Opinion Questionnaire.

Gruberg (1967) used twenty-five school counselors as subjects for his investigation of tolerance of ambiguity (T of A). The Complexity

Scale of the Omnibus Personality Inventory was used to determine the
level of T of A. It was disclosed that counselors measured as having
high T of A were rated by counselor educators as being more effective
in their skills of responding to client statements than were counselors
having low T of A.

Whiteley, et al. (1967) did not specifically test for tolerance of
ambiguity but did note in their concluding remarks that those students
in an EdM class in guidance who dealt best with an ambiguous written
case episode, received a better overall rating of effectiveness by
their supervisors.

It would seem from these research reports that counselors or
counselor trainees who were more tolerant of ambiguity received higher
overall ratings than those subjects who were less able to tolerate
ambiguity.

Biographical Information as Related

to Counselor Effectiveness

One important area of research which has been overlooked thus far
in the literature survey on counselor effectiveness is that of bio-
graphical data as predictors. Bozarth, Muthard and Miller (1968) in-
vestigated the relationship of biographical information to the
performance of counselors in state rehabilitation agencies. The inves-
tigators used the biographical data of the fifty counselors who were
rated highest by their supervisors on a rating form developed specif-
ically for this study and the fifty counselors rated lowest on the
form. The total sample from which the fifty highest and fifty lowest
were drawn was one hundred and sixty-five. Using a Chi-square analysis,

the investigators found the successful counselors could be distinguish-
ed from the less successful counselors on eighteen characteristics. An
abstracted listing of nine of the eighteen characteristics follows:
Successful counselors describe themselves as: 1) being first in order
of birth; 2) being more persistent in presenting their own ideas; 3)
getting along with both men and women; 4) having more capacity for
ambiguity; 5) beginning work at an older age; 6) being less inclined to
take action against ideas of their supervisor; 7) having less intuitive
ability; 8) reading less; and 9) having more years of work in the pro-
fession of rehabilitation.

Atlas and Mueller (1969) studied all of the 381 counselors employ-
ed by the California State Department of Rehabilitation. By means of
self-report on a form devised by the investigators, they found that
counselors who had advanced educational degrees (masters or more) re-
ported relatively high levels of self-confidence. Their supervisors,
however, rated tham lower in terms of satisfaction as an employee. It
should be noted, however, that counselors with no advanced degrees
(bachelors only) were also those who, as a group, had been on the job
longer than those with advanced degrees.

A follow-up study by the same authors (Mueller and Atlas, 1969)
not only failed to confirm the results of their previous investigation
but their data actually supported the reverse. That is to say, the
possession of a masters degree (especially in rehabilitation) was assoc-
iated with better than average preparation for and performance on the
job. Counselors with two years or more of service were much more
frequently found among those designated as most capable (no test for
significance).

These research data would appear to lend credence to the notion

that certain biographical information can be helpful in discriminating

between the effective and the ineffective counselors. These findings

led the experimenter to select the following biographical factors for

study:

1. Age
2. Sex
3. Number of months experience in rehabilitation
4. Number of months experience in rehabilitation-related work
5. Level and kind of training
   a. No graduate work
   b. Some graduate work - no degree (less than 30 hours)
   c. Masters equivalent (30 hours+) - no degree
   d. Masters degree in a non-rehabilitation major
   e. Masters degree in rehabilitation
   f. Masters degree in any field plus at least twelve hours
      of additional graduate work.

Rehabilitation Counselors: A Unique Population

At this point, it seems important to take a critical look at the

subjects which have been used in the experiments presented in this

chapter. Of the thirty studies presented thus far, seventeen of them

used graduate students or NDEA institute trainees while only nine in-

volved practicing rehabilitation counselors. The remaining four studies

investigated the characteristics of employed counselors or dormitory

assistants. Of the nine studies employing rehabilitation counselors

as subjects, five of the investigators used standardized instruments

as variables and only one of them compared scores on their instruments

with some criterion of effectiveness. It should be noted that one of

the main variables in this investigation (tolerance of ambiguity) has

not been studied with rehabilitation counselors.

It is recognized that there are many similarities in the basic

functions of counselors in a wide variety of settings. Most text books in the area of counseling are written with this assumption (e.g., Tyler, 1961 and 1969). Certainly the research findings reported in this chapter can be generalized to all types of counseling, including rehabilitation counseling. However, there are aspects of the rehabilitation counselor's job which make his task unique and which, perhaps, could require different skills and characteristics.

One of the unique requirements of a rehabilitation counselor is his need to evaluate medical information about his client in terms of how it might influence the choice of an occupational goal. The question of how a particular disease or disability may interfere with a person's ability to obtain and maintain a job is a daily area of concern for the rehabilitation counselor. A second major difference in rehabilitation counseling versus other types of counseling is the fact that in rehabilitation, the counselor has funds with which he can purchase services (i.e., surgery, prostheses, training, tools, etc.) for his client. The implications of "controlling the purse strings" are many and complicated. Thirdly, a rehabilitation counselor finds himself dealing with many people in many walks of life. Employer contacts regarding placement for his clients may take him into huge industries or small one-man operations. He is charged to cooperate with other agencies and organizations in his community in behalf of his clients. In short, he must be able to handle himself effectively in all areas of human relationships - not only in the client-counselor relationship in which he is in control, but also in dealing with others (e.g., employers, physicians, trainers, etc.) when they call the shots.

The fourth aspect of a rehabilitation counselor's job which makes

it unique is the emphasis on the holistic nature of rehabilitation.

The skills and functions of the rehabilitation counselor can be defined

in general as he works with a population. But his skills and functions

must be redefined with each new individual that the counselor serves.

"Fundamentally he must be capable of recognizing the total handicap

which disability imposes and individualizing the necessary resources to

ameliorate it." (Hamilton, 1950, p. 207). Recognizing the total handi-

cap and taking the necessary steps to ameliorate it requires the use

of an interdisciplinary approach as suggested by Soares, Lane, and

Silverstone (1969):

> He is necessarily involved in a study of the client's life
> situation, his family and other relationships, his attitude
> and feelings, especially in relation to his disability and
> to work. Medical, psychological, social, and vocational
> data are utilized to formulate an evaluation and a rehabil-
> itation plan for the individual. He is further responsible
> for carrying out the plan of purchasing or otherwise arrang-
> ing for treatment, training, and other services in order to
> reach the rehabilitation goal agreed upon with the client.
> Hence, he is a coordinator of other specialists and '...an
> advisor to his client in the latter's efforts to restore
> himself to active status within his family, work group, and
> society at large' (Sussman, 1965, p. 211)". (p. 14).

It should be stressed that the first thing that was noted in

comparing rehabilitation counselors with other counselors was that

there were similarities. The rehabilitation counselor must first of

all be a counselor. Unless he can be effective with his client - un-

less he enters a helping relationship rather than a harmful relation-

ship with his client - he cannot be a successful rehabilitation worker.

As a final thought on the basic work of the rehabilitation coun-

selor, the reader is referred to the work of Herbert Rusalem. In

Rusalem's (1951) dissertation done at Columbia University, he developed

a list of one hundred and seventy-nine functions of the rehabilitation

counselor. These were then reduced to nine major categories. It has been reported that rehabilitation counselors regularly perform a wide range of activities in each of the nine categories. They are as follows: 1) Medical diagnosis; 2) Social and vocational diagnosis; 3) Case finding; 4) Counseling; 5) Restoration (surgical treatment, physical therapy, etc.); 6) Training; 7) Placement; 8) Follow-up; 9) Miscellaneous activities.

After a thorough study of the functions of rehabilitation counselors, Sather, Wright and Butler (1968) conclude:

> Rehabilitation involves more than counseling; it involves the appropriate arrangement of an integrated pattern of services rendered by a variety of persons in different facilities and settings. Thus, the work of counselors in DVR agencies is quite different from those in such settings as counseling centers, schools, and employment agencies. (p. 4).

It would appear then that the work of the rehabilitation counselor is sufficiently different in function and scope from counselors in other settings to consider them as a unique population, deserving of further study in the area of characteristics related to effectiveness.

The Criterion Measure: Rating Effectiveness

Underlying any study involving counselor effectiveness in interpersonal relationships is the criterion problem - one which many of the researchers whose studies were surveyed in this chapter felt was a limiting factor in their findings. The rating of the effectiveness of an individual is subject to several potentially damaging influences. It can readily be seen, for example, that the personal biases of the individual doing the rating toward the individual being rated can have either a positive or a negative "halo" effect. Also, one supervisor

may rate his counselors consistently high while another may be consistently low. On the other hand, supervisors ratings as a whole may be the most valid means available (or feasible) for rating effectiveness. Supervisors have usually been counselors themselves at one time or another. Theoretically they would have the experience to know what it takes to effectively meet the challenges of daily interpersonal contacts with clients. Too, the supervisor has an opportunity to view the counselor over a period of time and judge his ability to deal successfully with a variety of problems.

Another argument in favor of the use of supervisors ratings as measures of effectiveness is that several investigations have studied the concurrent validity of these measures. Muthard and Miller (1964) conducted a comprehensive study of one hundred and forty-three rehabilitation counselors in six state agencies. They measured a counselor's effectiveness on seven different criteria including: 1) peer ratings on the Co-Worker Rating Blank (at least two fellow counselors rated each subject); 2) supervisor ratings using the Co-Worker Rating Blank; 3) present state agency rating schemes; 4) a Job Satisfaction Inventory; 5) average size of caseload of each subject; 6) average number of closures; and 7) caseload velocity - the rapidity with which one develops, plans, and provides services for his clients. It was determined that supervisors ratings correlated significantly with Co-Workers ratings (p <.01), present state agency ratings (p <.01), and average size of caseload (p <.05). In addition, when the criterion measures were grouped into the "Performance Rating" cluster (items 1, 2, and 3 above) and the "Case Management" cluster (items 5, 6, and 7 above), the supervisors ratings correlated significantly with both clusters. This

would appear to support the notion that supervisors ratings are efficient discriminators of rehabilitation counselor effectiveness or ineffectiveness.

Further support is added by Blocher's (1963) study involving thirty NDEA Institute participants. Each of the subjects was measured on four variables: 1) peer rankings of predicted counselor effectiveness; 2) the NDEA Comprehensive Examination; 3) the Counselor scale of the Kuder Preference Record, Form D; and 4) an average of the fall quarter grades. These scores were compared to rankings of the institute staff and found to correlate at .77.

In a study reported earlier, Johnson, et al. (1967) found that peer ratings, counselee ratings, and supervisor ratings correlated highly (r = .71) in judging counselor effectiveness. Ss were ninety-nine counselor candidates.

Thus it would appear that supervisor ratings are highly correlated with other measures of counseling effectiveness. These studies provide support for the use of supervisors ratings as a valid criterion measure of effectiveness in counseling.

Summary, Observations and Conclusions

In this chapter, several articles relating to the personality characteristics of counselors were reviewed. A search of the literature was conducted to ascertain whether or not counselor characteristics were significantly related to effectiveness. The following observations are made from this literature search:

1. Counselors can be differentiated from other populations by means of some standardized instruments (including some scales of the

SVIB, the MMPI, the EPPS, the Adjective Check List, the Berkeley Public Opinion Questionnaire, the California Psychological Inventory, the GZTS, the 16PF, the POI, and even some portions of the Rorschach and TAT).

2. Instruments such as the EPPS, the GZTS, the MMPI, and the 16PF have been used with varied but mostly limited success to discriminate between effective and ineffective counselors.

3. Correlations between various scales of the POI and varied criterion of counselor effectiveness have been consistently high.

4. Correlations between a subject's level of tolerance of ambiguity as measured by various means and his rated effectiveness has been consistently high.

5. Biographical information (including age at beginning work, number of years experience, level of education and kind of graduate education) have been demonstrated to discriminate between the more successful and the less successful counselors.

6. Samples reported in these studies were nearly all drawn from student populations or trainees in NDEA Counseling and Guidance Training Institutes. This factor limits the generalization of the findings of these studies to student counselors and trainees.

7. Rehabilitation counselors perform a function which is distinctive from other counselors and research in the specific area of rehabilitation counseling is lacking.

8. Supervisor ratings have been shown to discriminate between effective and ineffective counselors. Correlation with other measures of effectiveness (i.e., client ratings and peer ratings) is high.

These observations led the author to conclude that measures of self-actualization and tolerance of ambiguity along with certain bio-graphical information should be investigated as potential correlates of effectiveness among practicing rehabilitation counselors. Chapter III will present the research design and methodology which was used in the investigation of these variables.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The selection of candidates for rehabilitation counselor training

programs is an important step in supplying effective counselors for

rehabilitative agencies. Not enough is known at present about the

characteristics of effective rehabilitation counselors to compare and

select candidates for training programs who are judged to have the po-

tential to be effective rehabilitation counselors. It was the purpose

of the present investigation to identify certain characteristics which

will be helpful to counselor educators and rehabilitation agency admin-

istrators in identifying those persons who will later perform as effec-

tive rehabilitation counselors.

Hypotheses

The basic questions generated by the research related to the prob-

lems presented in this paper were reported in Chapter I (p. 6). For

the purpose of formulating an appropriate design for studying these

questions, they will now be stated as hypotheses. Stated in the null,

the following hypotheses were tested:

H_1: There are no significant relationships between the subscales
of the Personal Orientation Inventory and rehabilitation
counselor effectiveness, as measured by the Rehabilitation
Counselor Rating Scale.

H_2: There is no significant relationship between the scores on the <u>Tolerance-Intolerance of Cognitive Ambiguity Test</u> and rehabilitation counselor effectiveness, as measured by the <u>Rehabilitation Counselor Rating Scale</u>.

H_3: There is no significant relationship between any of the biographical data on rehabilitation counselors and degree of effectiveness, as measured by the <u>Rehabilitation Counselor Rating Scale</u>.

H_4: There are no significant relationships between a combination of the measured or reported rehabilitation counselor characteristics and rehabilitation counselor effectiveness as measured by the <u>Rehabilitation Counselor Rating Scale</u>.

Subjects

The subjects for this study were drawn from the population of rehabilitation counselors employed by the Oklahoma Rehabilitative Service as of November, 1972. Since the November roster was used to select the subjects, all counselors selected for this study had at least four months' experience before the study was conducted. It was therefore believed that each counselor on the roster was an appropriate subject for study from the standpoint of time on the job.

All counselors in the agency were used in the study with the following exception: In those supervisory units in which there were more than eight counselors, a random sample of eight were selected and the remainder omitted from the study. It was thought that supervisors might find the task of rating more than eight counselors too burdensome. This could have resulted in the supervisor giving less consideration to each counselor, thus skewing the results of the study in one direction or the other. The median number of counselors per supervisory unit is eight.

The Oklahoma Rehabilitative Service identifies each counselor and

caseload by a three-digit number. The random sampling of Ss in super-
visory units of more than eight counselors was done by using a table
of random numbers and the counselor code numbers. Starting at the top
lefthand row of random numbers and continuing across the page from
left to right on even-numbered rows, the first eight counselor code
numbers which appeared were used to identify the Ss used in the study.

Thus, from the 155 rehabilitation counselors on the November
roster, one hundred and thirty-eight (138) were chosen for the study.
Twenty-one of the twenty-two supervisory units within the Oklahoma
Rehabilitative Service were used. Supervisory unit number five, the
twenty-second unit, had several rehabilitation professional personnel
(i.e., evaluators, psychological assistant, etc.) but no rehabilitation
counselors with caseloads or code numbers. This unit was therefore
eliminated from the study.

Of the twenty-one supervisory units selected for the study, re-
sults were obtained from all but one unit. In the unit that did not
respond, the supervisor had only one counselor included in the investi-
gation and this counselor was unable to complete the instruments. Thus
twenty supervisory units of the twenty-two in the Oklahoma Rehabilita-
tion Service were studied.

Of the one hundred and thirty-eight counselors chosen for the
study, one hundred and twenty-nine responded with useable test data.
This represents a 93.5% return on the test instruments. The nine Ss
who were not included in the final analysis were eliminated for various
reasons. Two of these nine Ss resigned immediately prior to the date
of the investigation, four Ss returned incomplete or invalid test

results, and three Ss refused or for some reason could not participate in the study.

Instruments Used

Personal Orientation Inventory (POI)

The Personal Orientation Inventory was developed by Everett Shostrom in 1965. It was designed to measure a person's level of positive mental health or self-actualization. Whereas other tests, personality measures particularly, are based on abnormal populations, the POI is founded in the theories of Riesman, Maslow, Rogers, Ellis, and others and represents an attempt to tap positive mental health characteristics (Shostrom, 1964).

As Knapp (1971) notes, "...the POI consists of 150 two-choice comparative value judgment items reflecting values and behavior seen to be of importance in the development of the self-actualizing individual" (p. 1). Knapp (1971) quotes Maslow as saying,

> ...there is today a standardized test of self-actualization (the Personal Orientation Inventory). Self-actualization can now be defined quite operationally, as intelligence used to be defined, i.e., self-actualization is what the test (POI) tests. (p. 1).

The POI is composed of two ratio scales, which are time competence/incompetence and inner/other directedness. The self-actualizing person tends to be time competent (lives mostly in the present but uses past and future as guidelines) and inner directed. The remaining ten scales of the POI allow a measurement of other values and behavior seen to be of importance to the self-actualizing individual. The scales are: Self-actualizing value (SAV), Existentiality (Ex), Feeling reactivity

(Fr), Spontaniety (S), Self-regard (Sr), Self-acceptance (Sa), Nature
of man (Nc), Synergy (Sy), Acceptance of aggression (A), and Capacity
for intimate contact (C). (See Appendix A for the scale descriptions).

The POI is self-administering and is usually completed in about
thirty minutes, although there is not a time limit. The POI may be
scored by hand or by machine (Shostrom, 1966).

The validity of the POI is attested to by various investigations.
Shostrom (1964) disclosed the results of an experiment in which those
persons judged as "relatively self-actualized" and "relatively non-self-
actualized" by clinical psychologists in private practice were discrim-
inated by their scores on the POI at a significant level of confidence
(ten of the scales at p <.01, one scale at p <.05 and one at p <.10),
Ns for the two groups were twenty-nine and thirty-four respectively,

Knapp (1965) administered the POI and the Eysenck Personality
Inventory to one hundred and thirty-six college students. The twenty-
seven percent of the sample who scored highest on the EPI were placed
in a "high neurotic" group. The bottom twenty-seven percent were
placed in a "low neurotic" group. The subjects scores on the POI were
then compared between groups. All scales of the POI discriminated be-
tween the "high neurotic" and "low neurotic" groups at a significant
level of confidence (p <.05 and beyond). These results led Knapp to
conclude: "Thus self-actualization is seen to be positively and sig-
nificantly related to the lack of neurotic symptoms and tendencies."
(p. 170).

A study designed to investigate the validity of the POI in a clin-
ical setting was reported by Fox, Knapp and Michael (1968). These
investigators tested one hundred and fifty-eight hospitalized

psychiatric patients with the POI and compared their scores with a "normal" sample. It was found that all POI scales significantly dif- ferentiated the hospitalized sample from the normal and self-actualized samples (p <.01). Comparisons between the hospitalized sample and the non-self-actualized sample resulted in seven of the twelve POI scales discriminating between the two groups at the .05 level of confidence.

In a more direct attempt to validate the POI, McClain (1970) asked the staff members of an NDEA Institute to rate the participants on a six point scale of overall self-actualization. These scores were then correlated with the enrollee's POI scores. It was disclosed that nine of the twelve scales of the POI correlated significantly (p <.05) with the staff members ratings.

The reliability of the POI has been supported by a diversity of research reports. Klavetter and Mogar (1967) used a sample of forty- eight college students in their research. Retesting the subjects after a one week interval yielded correlation coefficients ranging from .52 to .82. Since the scales of time competence and inner direction have been considered by some to be the best estimates of self-actualization it is interesting to note that correlations on those scales were .71 and .77 respectively.

A much greater time interval was used by Ilardi and May (1968) to test the reliability of the POI. Forty-six female nursing students were retested after the first year of training (fifty weeks after the initial administration of the POI). The results showed that eleven of the twelve scales demonstrated a reliability coefficient which was sig- nificant at the .005 level of confidence. Feeling reactivity, the remaining scale, demonstrated a reliability coefficient which was

significant beyond the .025 level of confidence. These studies indicate that the reliability coefficients are well within the ranges of coefficients reported by somewhat similar studies on the MMPI and EPPS (Ilardi and May, 1968).

When using an inventory such as the POI, one must be concerned with the effects of "faking". To investigate these effects, Shostrom (1966) reports the results of data collected by Knapp. Eighty-six beginning psychology students were asked to respond to the POI as though they were applying for a job and wanted to make a good impression. The results of this "fake good" set were compared with the scores of another sample of introductory psychology students at the same college. The inspection of the "fake good" profile showed that it was not representative of the profiles of self-actualized individuals. Although there were some differences between the profiles of the two groups, the differences were not significant. These results led Shostrom to suggest that "deliberate distortion with instructions to 'make a good impression' does not produce a profile characteristic of self-actualized individuals."

In a more recent study, Foulds and Warehime (1971) asked ninety-five college students to take the POI, using the normal instructions. They were then given instructions to "fake good". The results were negative, indicating that POI scores are unlikely to be inflated by the conscious or unconscious attempts of subjects to make a good impression.

The literature suggests that the POI has sufficient validity, reliability, and resistance to faking to be an acceptable instrument for the measurement of self-actualization.

Tolerance-Intolerance of Cognitive

Ambiguity (TICA)

The TICA is a modification (Hampton, 1967) of Siegel's (1954)

TICA test. It was specifically designed "...to probe what has been

conceptualized as 'the need to structure'." (Hampton, 1970). The

TICA operationally defines tolerance of ambiguity as a measure of

coping with an ambiguous task.

The TICA test consists of sixteen pictures of adult males and

females taken at random from various popular magazines dated 1962-1965

and sixteen statements taken at random from different popular magazines.

The pictures are printed on one sheet and the statements on another.

Subjects are requested to match those pictures they feel represent

people who had made specific statements. Subjects are informed they

can make as many picture-statement matches as they wish, or none if

they so wish. Subjects are then requested to indicate their degree of

certainty of each match on a seven-point Likert-type scale. High

scores are accepted as indicative of ambiguity intolerance.

> The rationale underlying the TICA test is that subjects with
> a 'high' degree of intolerance of ambiguity would try to
> structure the ambiguous matching task prematurely; that is,
> to a greater degree than those subjects with a 'low' level
> of intolerance of ambiguity. (Hampton, 1970, p. 44).

The validity of the TICA test is difficulty to determine. Indeed,

the validity of any measure of tolerance of ambiguity is uncertain.

Hampton (1970) reports that the concept of intolerance of ambiguity has

been operationally defined in many ways and suggests that these varied

definitions represent different basic assumptions underlying the con-

cept of "intolerance of ambiguity". In the four research reports on

tolerance of ambiguity reported in Chapter II, each of the investi-
gators used a different measure of tolerance of ambiguity. Hampton's
(1970) findings indicate a non-significant correlation between the TICA
and Budner's Scale of Tolerance-Intolerance of Ambiguity Test (TI of
A). It was suggested that the two tests were measuring two separate
and distinct personality variables. Whereas the TI of A test was
designed to measure an evaluative response to various statements (i.e.,
agree or disagree), the TICA measured behavior manifested by coping
with an ambiguous task.

The TICA was chosen as a measure of tolerance of ambiguity in the
present study because of its underlying rationale. The TICA was devel-
oped on the theoretical foundations of Gestalt psychology - that man
has (to a greater or lesser degree) a need for structure or closure.
It follows from this basis that when faced with an ambiguous task, an
individual will attempt to cope with the situation by imposing structure
onto the situation. Those persons with a high level of tolerance for
ambiguity will impose less structure than those with a low level of
tolerance. That the TICA test is capable of measuring this level of
the "need to structure" is attested to by its construction. The indi-
vidual must actually cope with an ambiguous task rather than indicate
in some way what his response might be. Thus, as Hampton (1967) states:

> Considering ambiguity to be a function of the stimulus and
> tolerance as a form of copying behavior, it is this author's
> contention that ambiguity tolerance was adequately measured
> by the TICA test -- in response to an ambiguous task.
> (p. 10).

Additional credence is given to the construct validity of the
TICA test by the results of a study by Hampton and St. Clair (1970).
In this study, nine elementary school principals were selected for

study and were matched with nine graduate students in educational ad-
ministration. The subjects were given a series of tests including the
TICA and the Allport, Vernon, Lindzey "Study of Values" (S-V). The
results indicated a significant (p <.05) relationship between TICA
scores and all six of the values revealed by the S-V. These results
are consistent with the underlying theoretical foundation of the TICA
since the individual with a strong set of values would be expected to
have less need for structure. The author of the TICA is satisfied that
the TICA does, in fact, measure an individual's need for closure. It
is his opinion that the Hampton and St. Clair study suggests the con-
struct validity of the TICA by its relationship to a value system (John
Hampton, personal communication, October, 1972).

The reliability of the TICA is reported by Hampton (1970) in a
study of three hundred and twenty-two (322) students of various ages.
Testing one hundred fifth-grade students (ages 10-12), one hundred and
thirteen high-school students (ages 15-17), and one hundred and nine
college students (age 20-22), the investigator found Cronbach Alpha
reliabilities across age groups to be acceptably high (.84, .90, and
.92 respectively). A copy of the TICA test is included in Appendix B.

Biographical Information Survey

The importance of obtaining biographical information from the
sample was discussed in Chapter II as was the list of items reported.
A copy of the biographical information survey will be found in Appendix
C.

The Rehabilitation Counselor Rating

Scale (RCRS)

The Rehabilitation Counselor Rating Scale was developed by Muthard and Miller (1968) as a rating form for use in evaluating the performance of rehabilitation counselors employed in state vocational rehabilitation agencies. The scale consists of thirty-two statements on which a supervisor is to rate the performance of his counselor on a seven-point Likert-type scale. The RCRS can be divided into Form A and Form B (sixteen items in each) or can be used as a combined form. Since the authors suggest the use of the combined form, it was used in that manner for this study.

The RCRS attempts to measure a counselor's performance on four basic factors. These factors include: 1) Knowledge; 2) Placement; 3) Attitude; and 4) Interpersonal skills. The four factors can be isolated for separate analysis or they can be combined for an overall rating of counselor performance. Since the overall performance of rehabilitation counselors was the major emphasis of the present study, the total score on the RCRS was used to operationally define effectiveness.

In the development of the RCRS, Muthard and Miller (1968) tested the reliability of the instrument with seventeen district office supervisors in Iowa, Minnesota, and Missouri. The supervisors rated their counselors (n=72) on the RCRS and then completed the RCRS again after a three week interval. The reported correlation coefficient for the total scores on both Forms A and B was .92.

In another reliability check, the same authors asked state office

supervisors to use the RCRS to rate counselors in their agency whom they thought they knew well. These ratings were then compared with the ratings of the same counselors by their district office super-visors. The reliability coefficients between both groups of raters were .76 on Form A and .72 on Form B.

The validity of the RCRS lies mainly in its development. State agency administrators, supervisors, and counselor educators from the state agencies and institutions represented on the Joint Liaison Committee of the Council of State Administrators of Vocational Rehabilitation and the Rehabilitation Counselor Educators (Muthard and Miller, 1968) were asked for statements which characterized the most and least effective counselors they knew. Of about 650 different statements submitted, some 250 were selected for further study. These 250 statements were reduced to 84 through the alternation ranking procedure of several supervisors in three large geographical areas. These 84 items were then included in an experimental rating scale in which supervisors from 18 state agencies rated and ranked their counselors. Through factor analysis, 32 of these items were picked to be representative of the total pool of items.

Though this kind of construct validity is evidence for support of the use of the RCRS, it must be considered incomplete. The outcome of the present study was determined, to a large extent, by the instrument used as a criterion measure. To seek to identify correlates of effectiveness in rehabilitation counseling, it is necessary to be reasonably certain that the instrument being used to measure effectiveness will adequately measure the job performance of the counselors being studied.

For this reason the investigator, in consultation with the advisory

committee, conducted two preliminary measures of the validity of the
RCRS. These measures were undertaken prior to the conduct of the
present investigation.

The first indication of the validity of the RCRS was ascertained
by soliciting the opinions of two experts in the field of rehabilita-
tion counseling. These experts were individuals who, in the opinion
of the advisory committee, were judged to be knowledgeable in the field
of rehabilitation counseling and sophisticated in their understanding
of 1) the work of the rehabilitation counselor, and 2) research methods.
The RCRS was critically examined by these experts for its content
validity.

One of the experts was, in his own words, "...conservative con-
cerning the use of an instrument of this kind...". His feelings were
that the RCRS was perhaps a little too idealistic and he had reserva-
tions about the validity of the instrument as a means of evaluating the
performance of rehabilitation counselors. He suggested that the items
be accompanied by "some clarifying statement concerning each of the 32
questions...". However, the closing remarks of this expert appeared to
support the investigator's use of the RCRS as he stated, "Still it may
be the best instrument available for your use." (Voyle Scurlock, per-
sonal communication, November, 1972).

The second individual consulted about the content validity of the
RCRS was more positive in his remarks. After studying the RCRS and the
manual, he stated: "This [RCRS] appears to be a valid instrument for
measuring the job performance of rehabilitation counselors. It certain-
ly is the best instrument that I have seen for this purpose." Harold
Vialle, personal communication, February, 1973).

Since Vialle has been extensively involved in rehabilitation research for several years, his statement concerning the RCRS as the best instrument that he has seen is certainly to be regarded as supportive of its validity as a criterion measure.

Further evidence of the validity of the RCRS was sought in a small pilot study conducted by the investigator of the present study. The investigator asked a rehabilitation counselor educator to identify three graduates of his program whom he would consider "effective" counselors and three whom he would consider "ineffective" counselors. The educator used his own definition of "effective" and "ineffective" counselors. Each of the supervisors of these six Ss was then asked to complete the RCRS on his counselor and return it to the investigator.

To test the validity of the RCRS, a null hypothesis was posited, stating that there is no significant difference in RCRS scores between those counselors identified as effective by the rehabilitation counselor educator and those identified as ineffective. A Mann-Whitney U test was utilized to test this hypothesis. In employing the Mann-Whitney test, one is concerned with the sampling distribution of the statistic "U" (Runyon and Haber, 1971). To find U, all the scores were ranked from the lowest to the highest, identifying each score as E (effective counselor) or I (ineffective counselor). U is the sum of the number of times each E precedes an I.

Table I shows the results of the pilot study. Since each E precedes three Is, U = 3+3+3 = 9. This is the maximum support that can be gained in favor of the alternative hypothesis for an experiment of this size. Since the difference between the E and I groups is significant (p = .05), the null hypothesis was rejected. This evidence suggests a

significant level of confidence in the predictive validity of the RCRS with the pilot sample.

TABLE I

RANK AND SCORES OF SS IDENTIFIED AS EFFECTIVE
(E) OR INEFFECTIVE (I) COUNSELORS

Rank	1	2	3	4	5	6
Score	45	75	78	107	165	199
Condition	E	E	E	I	I	I

U = 9   p = .05 for one-tailed test

The foregoing studies on the RCRS indicate that the instrument is apparently reliable and has some predictive validity. Because of these features and because the RCRS is the only measure of rehabilitation counselor effectiveness available at this time that is composed of empirically selected materials and definite instructions for use, it was selected as the criterion measure for this study.

Procedure

The investigator met with the supervisors during one of their scheduled statewide meetings. Each supervisor was handed a packet of materials which included a list of the code numbers of the counselors he was to rate, a RCRS and an appropriate number of test kits (including

the POI, the TICA test, and the biographical information sheet) for his

counselors. Each kit was packaged in a 9 X 12 envelope with the code

number of the counselor on the outside. The supervisor was given in-

structions on the appropriate procedure for completing the RCRS and

was asked to deliver the test kit to the counselor selected to partici-

pate in this study.

When the supervisors returned to their respective geographical

areas, they delivered the test kits to the Ss then rated the Ss on the

RCRS. The POI, the TICA test and a one-page biographical information

questionnaire were completed by the Ss, using their code numbers as

identification. The completed test forms were placed in an envelope

by the Ss, sealed, and returned to their supervisor. The supervisor

then returned the Ss envelopes along with the completed RCRS to the

investigator by mail. All testing and rating were completed in five

weeks from the time it began.

Treatment of the Data

The first two hypotheses of the present study seek to determine

the existence of a relationship between rehabilitation counselor effec-

tiveness and the subscales of the POI and the scores of the TICA test.

A Pearson's product-moment correlation coefficient was computed between

the criterion measure and the independent variables. The resulting

correlation coefficients were then compared with the tabled values for

significance of r, using the appropriate degrees of freedom (Bruning

and Kintz, 1968, pp. 228-229). Correlation coefficients were accepted

as significant when they reached the .05 level of confidence.

Due to the many facets of the third hypothesis, three different

treatments were performed on the data. First, the variables of age,
experience in rehabilitation, experience in rehabilitation-related work
and level of training were correlated with the RCRS scores. Pearson's
product-moment correlation coefficients were computed. As above, the
coefficients were compared with the tabled values for significance of
r, using the appropriate degrees of freedom. Correlation coefficients
were taken as being significant when they reached the .05 level of
confidence.

The organic variable of sex was tested for its influence on the
dependent variable by computing a Student's t-test for difference be-
tween independent means (Runyon and Haber, 1967, pp. 180-187). A dif-
ference between the means which reached the .05 level of confidence was
accepted as significant.

The independent variable of level of training was then retabled
and treated in a simple analysis of variance. It was thought that an
AOV could possibly isolate a significant difference between mean RCRS
scores when training differed between groups. An F value which reached
the .05 level of confidence using the appropriate degrees of freedom
was accepted as significant.

A stepwise regression analysis was used to test the fourth hy-
pothesis. Utilizing the services of the University Computer Center,
a Maximum R^2 Improvement technique of stepwise multiple regression was
used (Service, 1972). This technique selects the optimum set of in-
dependent variables for predicting rehabilitation counselor effective-
ness. This program, identified as part of the Statistical Analysis
System (SAS) from North Carolina State University (Service, 1972),
computed the Pearson's product-moment correlation coefficients between

the criterion variable of rehabilitation counselor effectiveness and each of the eighteen independent variables of the present study. The correlation coefficients were printed out in a matrix, along with the mean and standard deviation of each variable in the study.

In addition, the SAS Maximum R^2 Improvement program computed beta weights for each of the variables. A beta weight is a measure of the predictive power of a variable in combination with other variables. Thus, in general, the larger the magnitude of the beta weight, the more that predictor variable is contributing to the explanation of the total variation observed in the dependent variable. The regression procedure also computed the constant which adjusts the difference between means of the criterion measure and the independent variables.

The final step in the program consisted of the development of a regression equation. The computer considered each predictor variable individually then selected those variables which made a significant contribution to the regression equation. The computer first selected that predictor variable which, through an analysis of variance, demon- strated the most significant contribution to the efficiency of the regression equation. In other words, that independent variable which accounted for the largest proportion of variation (R^2) in the dependent variable was selected first. Many stepwise multiple regression equa- tion programs then remove the effects of the best single predictor and proceed to select the second best single predictor. Then the third best predictor is selected, and so forth until n variables are selected which contribute the greatest to the regression equation. However, with the Maximum R^2 Improvement technique, the single best predictor is retained and instead of selecting the second best single predictor, the

best two-variable model (which will probably include the best single predictor), is selected. In stepwise fashion, then, the computer proceeds to select the best combination of three variables, the best combination of four variables, ... the best combination of n variables. At each step the procedure considers all combinations of a fixed number of variables, say three, then determines that combination of, say three, variables which accounts for the largest proportion (R^2) of total variation observed in the dependent variable. In the present study, the Maximum R^2 Improvement technique was stopped at the best combination of seven variables (the best seven-variable model). After each step in this analysis, the multiple correlation coefficient (R) and the proportion (R^2) of total variation accounted for by these variables was given so that the investigator could see the increase in R^2 attributed to each new variable. Before a variable was added to the equation, the computer performed an analysis of variance to ascertain whether or not that variable, in combination with the other variables, was contributing to the efficiency of the regression equation. If the analysis of variance was not significant, then that predictor was rejected and not included in the equation.

The advantage of this SAS Maximum R^2 Improvement technique over other stepwise procedures is that a predictor may not contribute singly to the efficiency of the regression equation but may contribute a great deal in combination with some other variable. In other words, the best single predictor and the second best predictor may not predict as well as the best pair or two-variable model.

The formula for regression is:

$$Y_1 = a + b_1X_1 + b_2X_2 + ...b_nX_n$$

Where:

Y_1 = the predicted score on the dependent variable

a = the constant

$b_1....b_n$ = the regression coefficients for each predictor variable, number one through n

$X_1....X_n$ = the score on each predictor variable, number one through n.

Summary

In this chapter, the four major hypotheses of the present study were stated in the null. One hundred and thirty-eight rehabilitation counselors from the Oklahoma Rehabilitative Service were identified as subjects. The instruments used to measure the independent variables were discussed including the Personal Orientation Inventory, the Tolerance-Intolerance of Cognitive Ambiguity test and the biographical information questionnaire. The criterion measure, the Rehabilitation Counselor Rating Scale, was also discussed and supportive research reported. The results of a pilot study on the RCRS were given. Procedures used in collecting and treating the data were given. Details of the findings resulting from the application of those statistical techniques to the data obtained are given in Chapter IV.

CHAPTER IV

RESULTS OF THE STUDY

This study investigated the relationship of certain selected
rehabilitation counselor variables, as measured by the Personal Orien-
tation Inventory, the Tolerance-Intolerance for Cognitive Ambiguity
test and a biographical information survey, with rehabilitation coun-
selor effectiveness as measured by the Rehabilitation Counselor Rating
Scale. Four hypotheses were tested. Stated in the null, these hy-
potheses were as follows:

H_1: There are no significant relationships between the subscales
of the Personal Orientation Inventory and rehabilitation
counselor effectiveness, as measured by the Rehabilitation
Counselor Rating Scale.

H_2: There is no significant relationship between the scores on
the Tolerance-Intolerance of Cognitive Ambiguity test and
rehabilitation counselor effectiveness, as measured by the
Rehabilitation Counselor Rating Scale.

H_3: There is no significant relationship between any of the bio-
graphical data on rehabilitation counselors and degree of
effectiveness, as measured by the Rehabilitation Counselor
Rating Scale.

H_4: There are no significant relationships between a combination
of the measured or reported rehabilitation counselor char-
acteristics and rehabilitation counselor effectiveness as
measured by the Rehabilitation Counselor Rating Scale.

Description of Sample

One hundred and twenty-nine rehabilitation counselors were used in
this investigation. Results of the investigation show that there were

one hundred and four (104) males and twenty-five (25) females in the study. Ages ranged from approximately 25½ years to 66½ years with the average being 41.66 years.

The range of rehabilitation experience varied from four months to thirty-seven years and ten months. The mean experience level was five years and four months. Rehabilitation-related experience also varied considerably, ranging from no experience to thirty years and nine months. The average amount of rehabilitation-related experience was seven years and one month.

Observation of the data on level of training indicates the following: There were no counselors in the agency with a bachelor's degree only; three Ss (2.3%) indicated they held the bachelor's degree plus some additional graduate work (less than 30 credit hours); seven Ss (5.4%) had 30 graduate hours or more but no Master's degree; fifty-four Ss (41.9%) held a Master's degree in a non-rehabilitation major; sixteen Ss (12.4%) held a Master's degree in rehabilitation counseling; and forty-nine Ss (38.8%) have completed at least twelve hours of additional graduate work beyond their Master's degree.

With a possible range of scores from 0 to 112 on the TICA (zero being more tolerant of ambiguity), the sample varied over the entire range. The mean score was 45.68 with a standard deviation of 34.41, indicating a wide variation among the scores.

The means and standard deviation of the sample on the POI are presented in Figure 1. The results clearly indicate that the sample is in the average range of standard scores on all twelve subscales of the POI.

TIME COMPETENT Lives in the present	INNER-DIRECTED Independent, self-supportive	SELF-ACTUALIZING VALUE Holds values of self-actualizing people	EXISTENTI-ALITY Flexible in application of values	FEELING REACTIVITY Sensitive to own needs and feelings	SPONTA-NEITY Freely expresses feelings behaviorally	SELF-REGARD Has high self-worth	SELF-ACCEPTANCE Accepting of self in spite of weaknesses	NATURE OF MAN, CON-STRUCTIVE Sees man as essentially good	SYNERGY Sees oppo-sites of life as meaning-fully related	ACCEPTANCE OF AGGRESSION Accepts feelings of anger or aggression	CAPACITY FOR INTIMATE CONTACT Has warm interpersonal relationships

Standard Scores

60 ... 50 ... 40

Standard Scores

	TIME COMPETENT	INNER-DIRECTED	SELF-ACTUALIZING VALUE	EXISTENTI-ALITY	FEELING REACTIVITY	SPONTA-NEITY	SELF-REGARD	SELF-ACCEPTANCE	NATURE OF MAN	SYNERGY	ACCEPTANCE OF AGGRESSION	CAPACITY FOR INTIMATE CONTACT
Mean	17.6	85.4	20.2	20.4	15.5	12.2	12.8	16.8	12.1	7.3	15.9	18.2
S.D.	2.7	10.4	2.5	4.5	2.6	2.5	1.9	3.5	1.8	1.2	3.2	3.4

Figure 1. Mean POI Scores for Rehabilitation Counselors (N = 129)

The Criterion Variable

The total score on the RCRS, combined Forms A and B, was the cri-
terion variable. Since there were thirty-two items which the super-
visors rated each counselor from 1 to 7 on a Likert-type scale, the
range of total possible scores was 32 to 224 with 32 being the most
desirable rating. In the present study, scores ranged from 41 to 217
with a mean of 94.09 and a standard deviation of 32.52. The mean
rating per item was 2.94 which indicates that the supervisors rated
their counselors, as a whole, somewhat above average.

The graph in Figure 2 shows the distribution of RCRS scores to be
clearly skewed. This would indicate that the mean score may be mis-
leading since it is influenced by the few large scores at the extreme.
The median score for the sample is 86 which lowers the average rating
per item to 2.68 and perhaps reflects a truer indication of the per-
formance of the sample as a group.

Rehabilitation Counselor Effectiveness and
the Personal Orientation Inventory

The first hypothesis called for an investigation of the relation-
ship between rehabilitation counselor effectiveness and the Personal
Orientation Inventory. It was stated as follows:

H_1: There are no significant relationships between the sub-
scales of the Personal Orientation Inventory and rehabil-
itation counselor effectiveness, as measured by the
Rehabilitation Counselor Rating Scale.

This hypothesis was tested by computing a Pearson's product-moment
correlation coefficient between the individual scores on the RCRS and

Number of Ss

25-

20-

15-

10-

5-

0-

32-48 49-64 65-80 81-96 97-112 113-128 129-144 145-160 161-176 177-192 193-208 209-224

$\bar{X}$ = 94   SD = 32.52   RCRS Scores   N = 129
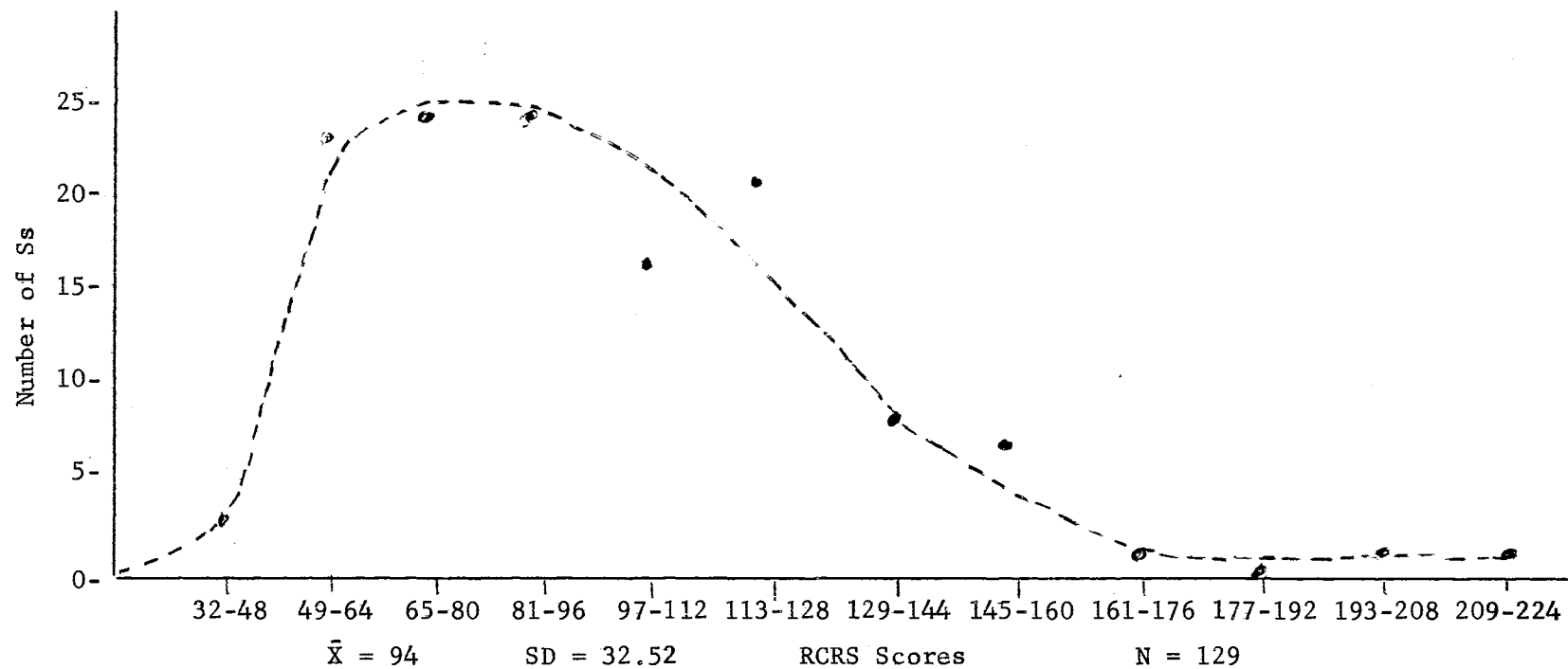
Figure 2. Distribution of RCRS Scores

each scale of the POI. The resulting correlation coefficients were
then compared with the tabled values for significance of r, using the
appropriate degrees of freedom (Bruning and Kintz, pp. 228-229). The
results are presented in Table II.

TABLE II

CORRELATION COEFFICIENTS OF REHABILITATION COUNSELOR
EFFECTIVENESS WITH THE PERSONAL ORIENTATION
INVENTORY
(N = 129)

POI Scales	r
Time Competence	-.170*
Inner/Other Support	.006
Self-Actualizing Value	-.046
Existentiality	.032
Feeling Reactivity	.019
Spontaneity	-.019
Self Regard	.000
Self Acceptance	.048
Nature of Man	.042
Synergy	-.018
Acceptance of Aggression	-.022
Capacity for Intimate Contact	-.017

*Significant at the .05 level of confidence

Time Competence, with an r value of -.170, was the only scale of
the POI that was found to have a significant relationship (.05 level of

confidence) with rehabilitation counselor effectiveness. This finding

suggests that counselors who score high on the Time Competence scale

of the POI tend to be rated as more effective rehabilitation counselors

than those scoring low on the Time Competence scale. (Note: the neg-

ative sign preceding the value of r should not confuse the reader.

The RCRS is designed so that a low score indicates a good job perform-

ance rating. Therefore, as the TC scores increase, the RCRS scores

will tend to decrease). No other POI scales correlated significantly

with the RCRS scores.

Therefore, the first hypothesis as stated must be rejected because

of the significant correlation ($r = -.170$) with the Time Competence

scale of the POI. However, with all of the other scales of the POI,

the null hypothesis must be accepted.

<div align="center">

Rehabilitation Counselor Effectiveness and the

Tolerance-Intolerance of Cognitive

Ambiguity Test

</div>

The second hypothesis required an investigation of the relation-

ship between rehabilitation counselor effectiveness and the Tolerance-

Intolerance of Cognitive Ambiguity test. It was stated as follows:

H_2: There is no significant relationship between the scores on
the Tolerance-Intolerance of Cognitive Ambiguity test and
rehabilitation counselor effectiveness, as measured by the
Rehabilitation Counselor Rating Scale.

This hypothesis was tested by computing a Pearson's product-moment

correlation coefficient between the scores on the criterion variable

(RCRS) and the TICA scores. The resulting correlation coefficient was

$r = -.007$. When compared with the tabled value for significance of r,

using the appropriate degrees of freedom (Bruning and Kintz, 1968,

pp. 228-229), it was found to be nonsignificant at the .05 level of

confidence. Therefore the stated null hypothesis must be accepted.

There is no evidence from this tested hypothesis to support the posi-

tion that persons who are more tolerant of cognitive ambiguity are

more effective rehabilitation counselors, as measured by the TICA.

Rehabilitation Counselor Effectiveness

and Biographical Information

The third hypothesis required an investigation of the relationship

between rehabilitation counselor effectiveness and certain biographical

data. It was stated as follows:

H_3: There is no significant relationship between any of the
biographical data on rehabilitation counselors and degree
of effectiveness, as measured by the Rehabilitation
Counselor Rating Scale,

Due to the many facets of the third hypothesis, three different

treatments were performed on the data. First, the variables of age,

experience in rehabilitation, experience in rehabilitation-related work

and level of training were compared with the criterion variable through

the use of Pearson's product-moment correlation coefficients. The re-

sulting correlation coefficients were then compared with the tabled

values for significance of r, using the appropriate degrees of freedom

(Bruning and Kintz, 1968, pp. 228-229). The results are presented in

Table III.

The findings indicate no significant relationships at the pre-

designated level of confidence (.05) between the independent variables

of age, rehabilitation experience, rehabilitation-related experience,

and level of training and the criterion variable, the RCRS score. However, experience in rehabilitation does correlate (r = -.152) with the RCRS score at the .10 level. While this is not sufficient to reject the null hypothesis, it does indicate that counselors with more experience in rehabilitation may receive a better job rating from their supervisors than those counselors with less experience.

TABLE III

CORRELATION COEFFICIENTS OF REHABILITATION COUNSELOR
EFFECTIVENESS WITH AGE, REHABILITATION EXPERIENCE,
REHABILITATION-RELATED EXPERIENCE
AND LEVEL OF TRAINING

Variable	r
Age	.030
Experience in Rehabilitation	-.152
Experience in Rehabilitation-Related Work	.021
Level of Training	.068

To test the influence of the variable of sex, the mean RCRS score of the male group (N = 104) was compared to the mean score of the female group (N = 25). A Student's t-test was applied to the means of the two groups to determine the level of significance between the means, using one hundred and twenty-eight degrees of freedom (Runyon and Haber, 1967, p. 293). The results are presented in Table IV.

TABLE IV

STUDENT'S t-TEST FOR SIGNIFICANCE BETWEEN MALE REHABILITATION COUNSELOR EFFECTIVENESS AND FEMALE REHABILITATION COUNSELOR EFFECTIVENESS

	Mean RCRS Score	t value	p
Male (N = 104)	93.34	0.289	n.s.
Female (N = 25)	97.24		

The results indicate no significant difference between the mean RCRS score of the male group and the mean RCRS score of the female group. This finding suggests that sex makes no appreciable difference in rehabilitation counselor effectiveness.

To further test hypothesis three, a simple analysis of variance was used to test differences between mean RCRS scores when level of training differed between groups. Using level of training as the treatment variable, an F ratio was computed. The resulting value was then compared with the tabled values for significance of F, using the appropriate degrees of freedom (Runyon and Haber, 1967, pp. 294-297). The results are presented in Tables V and VI.

The results indicate no significant difference between the mean RCRS scores when level of training varies. This finding suggests that rehabilitation counselor effectiveness is not influenced significantly by the level of academic training a counselor has had.

These tests of the third null hypothesis (there are no significant relationships between these selected biographical data and degree of

TABLE V

LEVELS OF TRAINING, MEAN RCRS SCORES AND RANK

Level	Description	N	$\bar{X}$ RCRS	Rank
1	Bachelor's degree - no graduate work	0	0	0
2	Bachelor's degree with some graduate work (<30 hours)	3	94.00	3
3	Bachelor's degree plus at least 30 graduate hours	7	83.14	1
4	Master's degree	54	94.44	4
5	Master's degree in rehabilitation counseling	16	86.81	2
6	Master's degree plus at least 12 graduate hours	49	97.65	5
	Total	129	94.09	

TABLE VI

SIMPLE ANALYSIS OF VARIANCE FOR REHABILITATION
COUNSELOR EFFECTIVENESS AND
LEVEL OF TRAINING

Source	SS	df	MS	F	p
Between Groups	2,315.15	4	578.79	0.539	n.s.
Within Groups	133,055.73	124	1073.03		
Total	135,370.88	128			

effectiveness as measured by the RCRS) show that it must be accepted.
From the data gathered for this study, there is not sufficient evidence
to support the position that age, experience in rehabilitation,
rehabilitation-related experience, sex, and level of training are sig-
nificant independent variables in rehabilitation counselor effective-
ness.

<div align="center">
Rehabilitation Counselor Effectiveness and

Combined Counselor Characteristics
</div>

The fourth hypothesis required an investigation of the relation-
ship between rehabilitation counselor effectiveness and a combination
of measured or reported counselor characteristics. It was stated as
follows:

> H_4: There are no significant relationships between a combi-
> nation of the measured or reported rehabilitation counselor
> characteristics and rehabilitation counselor effectiveness
> as measured by the Rehabilitation Counselor Rating Scale.

This hypothesis was tested by utilizing the services of the Uni-
versity Computer Center to compute a Maximum R^2 Improvement equation
through stepwise multiple regression. This technique selects the
optimum set of independent variables for predicting rehabilitation
counselor effectiveness. In this study, the investigator sought to
select the best multi-variable model for predicting the criterion var-
iable. At the point just prior to the time when R^2 failed to reach
significance ($p<.05$), the best predictor model was reached. The pro-
cedure began with a single-variable model, asking the statistical
question, "Which single variable best predicts the criterion variable?".
An analysis of variance was computed to test the significance of each

variable for predicting the criterion variable. An F-statistic was
calculated for each variable reflecting that variable's contribution
to the model were it to be included. In like fashion, the best two-
variable model was selected. This procedure continued until the best
n-variable model was selected. With each increase in the number of
variables in the equation, an analysis of variance was computed to
test the significance of that variable for improving the predictive
power of the equation. At the point where R^2 failed to reach signif-
icance ($p<.05$), no further variables were added to the equation
(Service, 1972, pp. 127-128). The analysis of variance resulting from
the addition of each new variable yielded an F ratio significant beyond
the .05 level of confidence.

In this study, the best seven-variable model was used to predict
RCRS scores. The results indicated that the best combination of pre-
dictors were Time Competence, Rehabilitation Experience, Self-
Acceptance, Age, Rehabilitation-Related Experience, Nature of Man, and
Capacity for Intimate Contact. These seven variables accounted for
10.8 percent of the common variance in RCRS. Table VII presents the
results of each step of the regression equation procedure.

The best seven-variable regression equation is as follows:

> Rehabilitation Counselor Effectiveness = 98.30 - 3.38
> Time Competence - 0.13 Rehabilitation Experience + 1.72
> Self Acceptance + 0.06 Age - 0.05 Rehabilitation-
> Related Experience + 1.52 Nature of Man - 0.56 Capacity
> for Intimate Contact.

The effectiveness of this equation was tested by comparing the
actual RCRS scores with the scores predicted by the regression equation.
Results are presented in Table VIII. It was found that the standard
error of the estimate for the predicted RCRS was 31.59. This is only

TABLE VII

VARIABLES ENTERED IN BEST SEVEN-VARIABLE
MODEL FOR MAXIMUM R^2 IMPROVEMENT

Step	Entering Variable	F Value	R^2
1	Time Competence	3.80*	.0290
2	Rehabilitation Experience	3.74*	.0560
3	Self Acceptance	3.45*	.0765
4	Age	3.10*	.0908
5	Rehabilitation-Related Experience	2.73*	.0997
6	Nature of Man	2.41*	.1060
7	Capacity for Intimate Contact	2.10*	.1081

*Significant at the .05 level of confidence

TABLE VIII

ACTUAL AND PREDICTED SCORES FOR
REHABILITATION COUNSELORS

Subject Number	Actual RCRS Scores	Predicted RCRS Scores	Residual
1	123	88.99	34.01
2	107	92.83	14.17
3	72	92.14	-20.14
4	107	93.70	13.30
5	127	89.57	37.43
6	95	90.07	4.93
7	94	84.67	9.33
8	69	75.87	-6.87
9	82	91.90	-9.90
10	84	94.09	-10.09
11	81	80.67	0.33
12	85	92.35	-7.35
13	58	89.84	-31.84
14	41	114.11	-73.11
15	62	87.90	-25.90
16	67	99.45	-32.45
17	49	82.49	-33.49
18	68	67.27	0.73
19	153	108.53	44.47
20	119	92.40	26.60
21	80	100.48	-20.48
22	128	106.96	20.04
23	75	117.23	-42.23
24	116	88.65	27.35
25	106	79.15	26.85
26	55	84.66	-29.66
27	90	102.25	-12.25
28	78	84.60	-6.60
29	66	89.18	-23.18
30	98	105.15	-7.15
31	55	71.21	-16.21
32	95	99.38	-4.38
33	59	91.47	-32.47
34	41	94.93	-53.93
35	119	102.37	16.63
36	71	97.38	-26.38
37	71	96.06	-25.06
38	74	95.60	-21.60
39	126	89.59	36.41
40	125	102.35	22.65
41	111	89.79	21.21
42	73	95.02	-22.02
43	72	95.86	-23.86
44	88	105.77	-17.77

TABLE VIII (Continued)

Subject Number	Actual RCRS Scores	Predicted RCRS Scores	Residual
45	94	82.82	11.18
46	126	111.82	14.18
47	77	100.75	-23.75
48	173	92.97	80.03
49	124	100.59	23.41
50	125	99.88	25.12
51	86	97.99	-11.99
52	91	104.25	-13.25
53	85	99.59	-14.59
54	64	101.89	-37.89
55	98	103.43	-5.43
56	61	63.58	-2.58
57	76	84.50	-8.50
58	111	94.01	16.99
59	54	95.86	-41.86
60	99	98.97	0.03
61	135	99.21	35.79
62	117	98.48	18.52
63	81	95.74	-14.74
64	72	92.72	-20.72
65	86	100.21	-14.21
66	62	86.43	-24.43
67	109	115.26	-6.26
68	103	92.18	10.82
69	79	102.15	-23.15
70	101	108.72	-7.72
71	114	95.79	18.21
72	84	106.15	-22.15
73	118	92.63	25.37
74	156	105.37	50.63
75	63	79.92	-16.92
76	217	103.16	113.84
77	61	89.00	-28.00
78	116	86.30	29.70
79	62	61.57	0.43
80	61	79.52	-18.52
81	152	97.60	54.40
82	117	104.86	12.14
83	97	90.64	6.36
84	158	85.73	72.27
85	125	95.97	29.03
86	91	111.28	-20.28
87	123	100.43	22.57
88	137	106.34	30.66
89	129	107.41	21.59
90	62	113.12	-51.12
91	94	106.84	-12.84

TABLE VIII (Continued)

Subject Number	Actual RCRS Scores	Predicted RCRS Scores	Residual
92	155	94.55	60.45
93	103	85.78	17.22
94	85	110.21	-25.21
95	81	77.26	3.74
96	118	84.33	33.67
97	116	88.50	27.50
98	81	86.66	-5.66
99	71	107.64	-36.64
100	70	99.28	-29.28
101	58	85.36	-27.36
102	68	90.59	-22.59
103	67	83.67	-16.67
104	109	105.50	3.50
105	133	87.27	45.73
106	62	97.78	-35.78
107	58	89.98	-31.98
108	72	98.08	-26.08
109	85	87.36	-2.36
110	63	79.33	-16.33
111	43	92.19	-49.19
112	121	88.68	32.32
113	113	78.43	34.57
114	135	98.05	36.95
115	50	94.82	-44.82
116	84	84.58	-0.58
117	78	99.33	-21.33
118	62	87.57	-25.57
119	58	91.00	-33.00
120	104	102.34	1.66
121	55	86.95	-31.95
122	52	76.44	-24.44
123	85	86.20	-1.20
124	78	82.70	-4.70
125	200	119.74	80.26
126	155	98.93	56.07
127	129	116.42	12.58
128	111	86.79	24.21
129	129	90.15	38.85
X̄	94.09	94.09	
SD	32.52		31.59

slightly smaller than the standard deviation of the actual RCRS scores (SD = 32.52), indicating minimal predictive power beyond the simple statistics. However, seventy-four percent of the predicted RCRS scores fell within one standard error of the estimate and ninety-six percent were found to lie between plus or minus two standard errors of the estimate.

Using the simple statistics on the distribution of the sample, we could predict that approximately sixty-eight percent of the RCRS scores would fall between 126.61 and 61.57 ($\bar{X}$ RCRS score plus or minus one standard deviation) and approximately ninety-five percent of the scores would fall between 159.13 and 29.05 ($\bar{X}$ RCRS score plus or minus two standard deviations). However, using the regression equation for prediction, it could be estimated that seventy-four percent of the scores would fall between 125.68 and 62.50 ($\bar{X}$ RCRS score plus or minus one standard error of the estimate), and that ninety-six percent of the scores would lie between 157.27 and 30.91 ($\bar{X}$ RCRS score plus or minus two standard errors of the estimate).

Since it was found that the seven-variable regression model could account for significantly more of the variance in RCRS scores than could be accounted for by chance alone (p<.05), the fourth null hypothesis (there are no significant relationships between a combination of the measured or reported rehabilitation counselor characteristics and rehabilitation counselor effectiveness) must be rejected. There is a significant relationship between the combination of the independent variables of Time Competence, Rehabilitation Experience, Age, Self-acceptance, Rehabilitation-Related Experience, Nature of Man and Capacity for Intimate Contact and the dependent variable, RCRS scores.

Intercorrelation of Independent Variables

Table IX presents an intercorrelation (using Pearson's product-moment correlation coefficients) of the eighteen independent variables of this study. For easy reference, the correlation coefficients for the dependent variable are also presented.

It is readily noticeable that there are a large number of significant correlations between the subscales of the Personal Orientation Inventory (items 1 through 12). Time Competence, for example, is correlated with all eleven of the other subscales of the POI at the .05 level or beyond. Inner/Other Support correlates at the .01 level or beyond with the eleven other subscales. Only the Nature of Man subscale deviates from this pattern as it correlated with only four of the other subscales at the .05 level or beyond.

This finding is not altogether surprising in view of the research literature on the POI. Where intercorrelations are reported, there appears to be a strong indication of interdependency between the twelve scales (Trotter, et al., 1971; Melchers, 1972; Klavetter and Mogar, 1967). It would appear that the subscales of the POI are, for the most part, measuring the same or different aspects of the same overall dimension of self-actualization.

Another significant observation regarding the intercorrelation of the independent variables involves the POI subscales and rehabilitation-related experience. On seven of the twelve POI scales, rehabilitation-related experience shows a negative correlation ($p<.10$), indicating that as experience in rehabilitation-related work increases, scores on these seven POI scales decrease. The seven scales included in this

TABLE IX

INTERCORRELATION MATRIX (N = 129)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Time Competence		.476***	.358***	.469***	.195*	.354***	.324***	.497***	.255**	.263**	.201*	.368***	−.054	−.071	−.132	−.070	−.062	.197*	−.170*
2. Inner/other support			.625***	.778***	.694***	.748***	.547***	.756***	.277**	.360***	.583***	.831***	−.036	−.062	−.218**	−.090	−.101	.265**	.007
3. Self-actualizing Value				.460***	.439***	.590***	.442***	.310***	.251**	.555***	.357***	.413***	.011	−.016	−.127	.013	−.068	.248**	−.046
4. Existentiality					.364***	.458***	.228**	.614***	.126	.412***	.335***	.669***	−.062	−.122	−.189*	−.025	−.026	.190*	.032
5. Feeling Reactivity						.588***	.387***	.327***	.114	.157†	.623***	.642***	−.007	.031	−.188*	−.072	−.141	.117	.019
6. Spontaneity							.488***	.487***	.177*	248**	.420***	.596***	−.086	−.119	−.150†	.023	−.090	.024**	−.019
7. Self Regard								.386***	.200*	.224**	.350***	.445***	.024	.026	−.074	−.086	.017	.210*	−.001
8. Self Acceptance									.063	.179*	.382***	.605***	−.013	−.086	−.115	−.168*	.060	.165†	.048
9. Nature of Man										.259**	−.047	.075	−.117	−.122	−.145†	.132	−.156†	.089	.042
10. Synergy											.216**	.215**	−.055	−.127	−.090	−.013	−.011	.187*	−.018
11. Acceptance of Aggression												.602***	−.019	.009	−.144†	−.082	−.076	.139	−.022
12. Capacity for Intimate Contact													−.039	−.060	−.170*	−.119	−.040	.242**	−.017
13. Age														.533***	.500***	−.033	−.047	.190*	.030
14. Rehab Experience															−.032	.024	.264**	−.073	−.152†
15. Rehab-related Experience																−.143†	.270**	−.017	.021
16. Tolerance of Ambiguity																	−.062	−.100	−.007
17. Level of Training																		.008	.068
18. Sex																			.048
19. RCRS																			

† significant at the .10 level of confidence
* significant at the .05 level of confidence
** significant at the .01 level of confidence
*** significant at the .001 level of confidence

relationship are: Inner/Other Support, Existentiality, Feeling Re-
activity, Spontaneity, Nature of Man, Acceptance of Aggression, and
Capacity for Intimate Contact.

Summary

This chapter included a description of the sample on the nineteen
variables investigated in the present study. There was sufficient
evidence in the data gathered by this investigator to reject hypotheses
one and four. Hypotheses two and three were accepted although there
was some evidence in favor of rejecting hypothesis two.

The relationship between the independent variables used in this
study were presented by means of an intercorrelation matrix.

Chapter V will present the summary and conclusions of this study
as well as a discussion of some of the implications for utilization and
future research.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS

Overview

The present investigation involved one hundred twenty-nine reha-
bilitation counselors from the Oklahoma Rehabilitative Services

Division of the Department of Institutions, Social and Rehabilitative

Services. Each counselor was asked to complete a Personal Orientation

Inventory, a Tolerance-Intolerance of Cognitive Ambiguity test, and a

Biographical Information survey form. Data gathered on these instru-

ments were then compared with the Ss scores on the criterion variable,

the Rehabilitation Counselor Rating Scale (RCRS). The RCRS, a measure

of an individual's job performance, was completed by the supervisor of

each of the Ss.

Pearson product-moment correlation coefficients were then computed

between the RCRS scores and each of the eighteen independent variables

in the study. In addition, a Student's t-test was computed to test the

significance of sex as an influence on the criterion variable. An

analysis of variance was also performed on the data to determine whether

there were significant differences between mean RCRS scores when level

of training differed. Finally, a step-wise multiple regression equa-

tion was computed to select the optimum subset of variables for predict-

ing rehabilitation counselor effectiveness.

Summary of the Results

In this study, four hypotheses were tested. Hypothesis one was stated as follows:

H_1: There are no significant relationships between the subscales of the <u>Personal Orientation Inventory</u> and rehabilitation counselor effectiveness, as measured by the <u>Rehabilitation Counselor Rating Scale</u>.

The correlation coefficients for the POI and the RCRS may be seen in Table II, Chapter IV. The null hypothesis was rejected for the Time Competence scale since it was found to be correlated ($r = -.170$) with the RCRS at the .05 level of confidence. The negative correlation was expected since a high score on the Time Competence scale would tend to be accompanied by a low score on the RCRS, hence a better job performance rating. The significant correlation between Time Competence and RCRS suggests that rehabilitation counselors who live primarily in the present - who say "I am adequate now" rather than "I was adequate once" or "I will be adequate again" - may perform more effectively than counselors who live primarily in the past or in the future.

None of the other eleven scales of the POI reached significance in its relationship to the criterion variable, neither was there any indication of a tendency to relate to RCRS scores. Thus the null hypothesis was accepted for these eleven variables. This finding is somewhat surprising in light of the research literature on the POI (see Chapter III). It would appear that, in the present sample, none of the characteristics measured by the POI contribute significantly to rehabilitation counselor effectiveness, with the exception of Time Competence. However, it is within the realm of possibility that even the significant correlation between Tc and RCRS scores could have occurred by

chance. Tc is one POI scale out of twelve. Chance would therefore

have ample opportunity (1 chance in 12) to operate to contaminate the

results.

It should be remembered that the mean rating for the sample on the

RCRS was above average while the POI scores fell within the expected

range. This finding is consistent with the finding reported above in

which the dimensions of self-actualization (save Time Competence) are

non-indicative of rehabilitation counselor effectiveness. Hypothesis

one must be rejected because of the significant relationship of Tc and

RCRS, but this rejection should be viewed with reservations.

The second hypothesis was stated as follows:

H_2: There is no significant relationship between the scores on
the Tolerance-Intolerance of Cognitive Ambiguity test and
rehabilitation counselor effectiveness, as measured by the
Rehabilitation Counselor Rating Scale.

This hypothesis was tested by computing a Pearson's product-moment

correlation coefficient between the TICA scores and the RCRS scores.

The resulting correlation ($r = -.007$) was not of sufficient magnitude

to reject the null hypothesis. This would indicate that tolerance of

ambiguity is not contributing significantly toward the relative effec-

tiveness or ineffectiveness of rehabilitation counselors. This finding

could be interpreted in at least two ways. In the first place, it may

be suggesting that rehabilitation counselors, working in a rather

unique branch of counseling, need not be able to tolerate ambiguity in

order to perform efficiently on the job. A second interpretation, and

one that seems more plausible, is that the characteristic called

"tolerance of ambiguity" which is measured by the TICA may not be the

same "tolerance of ambiguity" concept put forward by Blocher (1966) and

others as so essential to effective counseling. This multiple-concept interpretation is supported by Hampton (1970) who reports that the concept of tolerance of ambiguity has been operationally defined in many ways and he suggests that these varied definitions represent different basic assumptions underlying the concept. Thus, perhaps the Complexity Scale of the Omnibus Personality Inventory as used by Gruberg (1967) or the Berkeley Public Opinion Questionnaire as used by Brams (1961) test different characteristics which, though identically labeled, represent different dimensions of personality and might predict rehabilitation counselor effectiveness better.

The third hypothesis was stated as follows:

H_3: There are no significant relationships beteeen any of the biographical data on rehabilitation counselors and degree of effectiveness as measured by the Rehabilitation Counselor Rating Scale.

The variables of age, experience in rehabilitation, rehabilitation-related experience and level of training were first tested by computing a Pearson's product-moment correlation coefficient between each of them and the criterion variable. Results of this computation can be found in Table III, Chapter IV. Only experience in rehabilitation is found to correlate (r = -.152) with RCRS scores at the .10 level of confidence. While this level of confidence is not enough to reject the null hypothesis, it is certainly an indication that experience on the job is contributing to rehabilitation counselor effectiveness.

To further test the influence of level of training, a simple analysis of variance was computed, using the six levels of training as the treatment variables. Results of this procedure can be found in Table V, Chapter IV. There were no significant differences between mean RCRS

scores when the level of training varied.

A Student's t-test was used to test the influence of sex on the criterion variable. Results of the test are presented in Table IV, Chapter IV. No significant differences were found between male and female counselors on their RCRS scores.

The results of all the tests on hypothesis three indicated that only rehabilitation experience may influence the rating of rehabilitation counselor effectiveness. Related experience, age, sex and level of training contribute little to the explanation of the variation in RCRS scores when used individually as predictors. However, as shall be demonstrated below, some of the biographical factors, when combined, serve to add to a regression equation for predicting rehabilitation counselor effectiveness.

The fourth hypothesis was stated as follows:

H_4: There are no significant relationships between a combination of the measured or reported rehabilitation counselor characteristics and rehabilitation counselor effectiveness, as measured by the Rehabilitation Counselor Rating Scale.

This hypothesis was tested by utilizing the services of the University Computer Center to compute a Maximum R^2 Improvement equation through stepwise multiple regression. This technique selects the optimum set of variables for predicting rehabilitation counselor effectiveness. In the present study, the best seven-variable model for predicting RCRS scores was used. The results indicated that the best combination of seven variables were Time Competence, Rehabilitation Experience, Self Acceptance, Age, Rehabilitation-Related Experience, Nature of Man, and Capacity for Intimate Contact. These seven variables accounted for 10.8 percent of the variation observed in RCRS scores.

Table VIII, Chapter IV presents the results of each step of the regression procedure. While an R^2 value of .108 is not a particularly high value, by using the regression equation, it is possible to predict seventy-four percent of the RCRS scores to fall between plus or minus one standard error of the estimate and ninety-six percent to fall within plus or minus two standard errors of the estimate. On the basis of the above information, hypothesis four was rejected.

Table X presents the intercorrelations of the predictor variables. It is interesting to note that the biographical variables all have negative correlations with the POI scales. This indicates that as age, rehabilitation experience and rehabilitation-related experience increase, scores on Time Competence, Self Acceptance, Nature of Man and Capacity for Intimate Contact tend to decrease. Stated another way, as age, rehabilitation experience, and rehabilitation-related experience increase, indices of self-actualization tend to decrease. Speculation on this phenomenon leads one to question how such a relationship could occur. Ultimately, though, the question will have to be put to a research design to attempt to answer it. What is shown by this occurrence is that the relationship between independent variables is relatively unimportant in a regression equation since it is their combined influence on the criterion variables that determines the predictive power of the equation.

Conclusions

Based on the data gathered in the present study and the statistical tests applied to these data, the following conclusions can be drawn:

TABLE X

INTERCORRELATION OF PREDICTOR VARIABLES
USED IN REGRESSION EQUATION

	Sa	Nc	C	Ag	RE	RRE	RCRS
Time Competence (Tc)	.498***	.255**	.368***	-.054	-.071	-.132	-.170*
Self Acceptance (Sa)		.063	.605***	-.013	-.086	-.115	.048
Nature of Man (Nc)			.075	-.117	-.122	-.145	.042
Capacity for Intimate Contact (C)				-.039	-.060	-.170*	-.017
Age (Ag)					.533***	.500***	.030
Rehabilitation Experience (RE)						-.032	-.152
Rehabilitation- Related Experience (RRE)							.021

*Significant at .05 level of confidence

**Significant at .01 level of confidence

***Significant at .001 level of confidence

1. The Time Competence scale of the POI is significantly
    correlated (r = -1.70, p<.05) with rehabilitation coun-
    selor effectiveness, as measured by the <u>Rehabilitation
    Counselor Rating Scale</u>. The rehabilitation counselor
    who scores high on the Tc scale will likely receive a
    better job performance rating by his superior.

2. No other scale of the POI was significantly correlated
    with rehabilitation counselor effectiveness, as measured
    by the RCRS, nor was there a tendency toward a signifi-
    cant relationship.

3. There is no significant relationship between tolerance
    of ambiguity, as measured by the TICA and rehabilitation
    counselor effectiveness, as measured by the RCRS.

4. Rehabilitation experience is found to correlate (r = -.152)
    with RCRS scores at the .10 level of confidence. The
    counselor with more rehabilitation-related experience may
    receive a better job rating from his superior.

5. There are no significant relationships between age, re-
    habilitation experience and level of training and
    rehabilitation counselor effectiveness, as measured by
    the RCRS.

6. Prediction of rehabilitation counselor effectiveness at
    at level better than chance was found to be possible
    through a seven-variable regression equation. The var-
    iables included in the equation are: Time Competence
    (POI), Self Acceptance (POI), Nature of Man (POI),
    Capacity for Intimate Contact (POI), Age, Rehabilitation
    Experience, and Rehabilitation-Related Experience.

<center>Implications</center>

In the present study, only a few of the independent variables
were found to be predictive of rehabilitation counselor effectiveness.
This leads to a recognition of the need to explore two major aspects of
the study: the criterion variable and the independent variables.

The RCRS was the criterion variable. It consists of thirty-two
items on which a supervisor is to rate a counselor from 1 to 7 on a
Likert-type scale. In the present study, a single RCRS score was used
as the measure of rehabilitation counselor effectiveness. The total

score was used in the present study so that an overall measure of effectiveness could be obtained. The RCRS is designed so that it can be divided into four factors or used as a single indicator of effectiveness. The four factors are: Knowledge Factor, Placement Factor, Attitude Factor and Interpersonal Skills Factor. It could be that, while many of the independent variables do not correlate with the total RCRS scores, they may correlate with one or more of the RCRS Factors. An investigation of this possibility would certainly be a recommendation arising from this study.

Another consideration in regard to the criterion variable would be to communicate to the supervisors a more complete description of each of the thirty-two items in the RCRS. This was suggested earlier by one of the rehabilitation experts consulted during the pilot study on the RCRS (see Chapter III).

Still another possibility exists for improving the study through the criterion variable. Earlier it was mentioned (Limitations, p. 8) that the personal bias of the supervisor might tend to influence the rating of his counselors. The distribution of RCRS scores for this sample indicated this phenomenon may have taken place since the supervisors, as a whole, rated their counselors above average (see Chapter IV). By asking the supervisors to place no more than one counselor at each point on the rating scale, it would have resulted in a more normal distribution of RCRS scores. The outcome of the present study may have been somewhat different had this procedure been used.

The RCRS is an instrument which needs more research and perhaps some revision to make it a worthwhile standard for measuring rehabilitation counselor effectiveness. The limited research that has been

conducted to date indicates that it does merit further investigation.

The TICA was not predictive in this study. Perhaps, as was suggested earlier, "tolerance of ambiguity" is a term which is ill-defined or not specifically defined when applied to the characteristic suggested as necessary for "successful" counselors (Blocher, 1966; Bordin, 1955). A comparison of several tests of ambiguity and their correlation with various measures of counselor effectiveness would be of value in helping to better define the characteristic defined as "tolerance of ambiguity".

The biographical factors, though not highly correlated with the criterion variable, were seen to emerge in the regression equation. This indicates that in future predictive studies an attempt should be made to include personal data.

One of the biographical factors studied, level of training, appeared to be doomed to nonsignificance because of an insufficient classification of levels. When the data was gathered, it was apparent that there were more appropriately eight categories or levels of training rather than the six included in this study. A suggested reclassification of the level of training variable would be:

Level	Description
1	Bachelor's degree plus some graduate work (<30 hours)
2	Bachelor's degree plus at least 30 hours of graduate credit
3	Bachelor's degree plus at least 30 hours of graduate credit with a major emphasis in counseling and guidance
4	Master's degree... non-counseling and guidance emphasis
5	Master's degree... counseling and guidance emphasis

6   Master's degree... rehabilitation counseling emphasis

7   Master's degree plus at least 12 hours in a non-
     counseling and guidance emphasis

8   Master's degree plus at least 12 hours in a counseling
     and guidance emphasis.

This further refinement would not only allow for a _level_ of training variable, it would add a dimension of _kind_ of training as well.

The present investigation should be repeated with the same and/or a different population. To do so would allow for a cross validation of the findings of this study. Do the same variables predict rehabilitation counselor effectiveness at a later date or with a different population or is chance operating to confound the results? Are the instruments reliable from one time to another and from one population to another? Are the results of the instruments used in the present study subject to the influence of extraneous variables such as current events? (Current events may be especially influential with the TICA test, for example. If one is currently living in an elevated state of ambiguity, will he exhibit the same amount of tolerance as he might at a more stable time?)

One other implication should be noted. It has been found in the present study that there are variables which correlate with, and to some extent predict, rehabilitation counselor effectiveness. This finding in itself should lead researchers in the field of rehabilitation counseling and related fields to seek other variables which might be predictive of effectiveness. The goal of isolating those qualities or characteristics of counselors which make a difference to the people with whom they work is still a worthy objective and should be continually sought.

Supplemental Findings: Serendipity

In an investigation of this sort, with one hundred and twenty-nine
subjects contributing data, there is oftentimes an incentive for an
exploration of the data which goes beyond the stated hypotheses. While
this exploration does not contribute evidence to support or reject the
stated hypotheses, it can possibly lead to a better understanding of
the sample studied, the instruments used and/or the theories explored
by the study as originally designed and conducted. This section con-
tains the results of some of the extrahypothetical explorations of the
data gathered for the present investigation.

An instrument which was explored in some depth and breadth was the
TICA. The intercorrelation matrix (Table IX) indicates the TICA corre-
lates significantly ($p<.05$) with the Self Acceptance scale of the POI
($r = -.168$). It also correlated ($p<.10$) with rehabilitation-related
experience ($r = -.143$) and at the .20 level with Capacity for Intimate
Contact ($r = -.119$). All of these correlations are in the expected
direction since a low score on the TICA indicates more tolerance of
ambiguity.

A high score on the Sa scale measures acceptance of one's own weak-
nesses and deficiencies. A high score on the C scale of the POI
measures "...the person's ability to develop meaningful, contactful
relationships with other human beings." (Shostrom, 1966, p. 21). Both
Sa and C require an individual to accept or tolerate the ambiguity
associated with what the person is or other human beings are and what
a person would like himself or others to be. Thus, the statistical
relationship between the TICA and the Sa and C scales is supported by

a theoretical relationship.

A further analysis of the relationship between rehabilitation-related experience (RRE) and the TICA was conducted to try to clarify the nature of this relationship. RRE was divided into four classes: Individuals with from one to thirty-six months of RRE were included in Group 1; Group 2 included those with 37 to 72 months of experience; Group 3 contained those with 73 to 108 months' experience, while Group 4 included everyone with 109 months of experience or more. A simple analysis of variance was computed to test the significance of the difference in a mean TICA scores between the four groups. The results of this procedure can be seen in Tables XI and XII.

The analysis of variance shows a significant difference ($p < .05$) between mean TICA scores when level of RRE varies. The mean TICA scores, shown in Table XI, indicate that persons with three to six years of related experience and those with nine or more years of experience differ significantly in their tolerance of ambiguity from those persons with less than three years of experience and those with six to nine years of related experience. A look at the raw data shows that, with rare exceptions, the related experience listed by the Ss in this sample is public school teaching, coaching or counseling.

The apparent intolerance of ambiguity during the first three years of related experience could possible be explained by the need for relatively new teachers and other professionals to have their work situation well-structured. But why the apparent intolerance at the six to nine year RRE level? Could it be that during this period promotions to new positions, changes in job responsibilities, changes in educational structure or philosophy, or other changes in the working conditions

TABLE XI

LEVEL OF RELATED EXPERIENCE AND MEAN TICA SCORES

RRE Level	N	Mean TICA Score
1	33	56.45
2	36	39.39
3	24	54.38
4	36	36.31
Total	129	45.68

TABLE XII

SIMPLE ANALYSIS OF VARIANCE USING LEVELS OF RELATED
EXPERIENCE AS TREATMENTS AND TICA SCORES
AS THE CRITERION

Source	df	SS	MS	F	p
Between Groups	3	10,233.97	3,411.32	3.018	.032
Within Groups	125	141,312.00	1,130.50		
Total	128	151,545.97			

have caused the individual to be coping with an elevated level of ambiguity? Could he be less tolerant of ambiguity because of a lowered level of structure imposed on him, therefore exhibiting a greater need to structure? One can only speculate at the myriad of possible reasons for this phenomenon. Yet the evidence is strong in favor of a meaningful difference between groups on the TICA.

Unlike RRE, rehabilitation experience (RE) does not demonstrate as clear a differentiation of TICA scores. Table XIII and XIV show the results of a simple analysis of variance using TICA as the criterion variable and levels of RE as treatments. Level 1 RE indicates an amount of rehabilitation experience of less than two years, Level 2 represents two to four years of experience, while Levels 3 and 4 represent four to six years and six to eight years of experience, respectively,

TABLE XIII

LEVELS OF EXPERIENCE AND MEAN TICA SCORES

RE Level	N	Mean TICA Score
1	27	54.96
2	32	39.09
3	41	40.12
4	29	52.17
Total	129	45.68

TABLE XIV

SIMPLE ANALYSIS OF VARIANCE USING LEVELS OF EXPERIENCE
AS TREATMENTS AND TICA SCORES AS THE CRITERION

Source	df	SS	MS	F	p
Between Groups	3	6,203.76	2,067.92	1.778	.15
Within Groups	125	145,342.21	1,162.74		
Total	128	151,545.97			

Results of the AOV show that, while the level of confidence is not high (p = .15), a definite difference does exist on mean TICA scores between groups. Here the results indicate that persons with two to six years of RE exhibit a greater tolerance for ambiguity than those with less than two years or more than six years of experience. The high TICA scores in Level 1 can again be explained by the need to structure found among new employees. More experienced counselors though (level 4) would be expected to score lower on the TICA.

The question then arose, "What is the relationship of total experience (TE) and TICA, combining rehabilitation experience with rehabilitation-related experience?" Again using the analysis of variance procedure, the question was put to a statistical test. Tables XV and XVI show the results of that analysis of variance. In this case, Level 1 TE was equal to zero to five years of total experience, Level 2 TE equals five to ten years, Level 3 equals ten to fifteen years, Level 4 equals fifteen to twenty years, and Level 5 equals more

TABLE XV

LEVELS OF TOTAL EXPERIENCE AND MEAN TICA SCORES

TE Level	N	Mean TICA
1	18	60.28
2	40	46.48
3	39	38.03
4	12	44.83
5	20	46.40
Total	129	45.68

TABLE XVI

SIMPLE ANALYSIS OF VARIANCE USING LEVELS OF TOTAL
EXPERIENCE AS TREATMENTS AND TICA
SCORES AS THE CRITERION

Source	df	SS	MS	F	p
Between Groups	4	6,164.94	1,541.24	1.315	<.30
Within Groups	124	145,381.03	1,172.43		
Total	128	151,545.97			

than twenty years of total experience.

These results indicate that there is not a significant difference between groups when controlling for level of TE. However, there is a tendency to discriminate, as indicated by a probability of less than .30.

Experience, then is a factor (to a greater or lesser extent) in one's need to structure, as measured by the TICA.

The second major statistical exploration involved the Maximum R^2 Improvement technique of stepwise multiple regression. As was mentioned earlier in this chapter, an R^2 value of .108 is not as high as might be expected (although it was statistically significant at the .05 level of confidence). Is there some way to statistically improve the regression equation and account for more of the common variance in RCRS? The investigator chose to include the nine variables in the best nine-variable model, the squares of these nine variables and the cross products of these nine variables in a new Maximum R^2 Improvement procedure. The nine-variable model was used instead of the seven-variable model to allow for more possible combinations of variables. The variables in the new procedure were Time Competence (Tc), Feeling Reactivity (Fr), Self Regard (Sr), Self Acceptance (Sa), Nature of Man (Nc), Capacity for Intimate Contact (C), Age, Rehabilitation Experience (RE), and Rehabilitation-Related Experience (RRE). Also included were the squares and the cross products of each of these nine variables. A Maximum R^2 Improvement technique was then computed through the University Computer Center.

The best seven-variable square and cross product model was used to predict RCRS scores. The results indicated that the best combination

of seven variables were Tc, Age squared, Tc times Age, Fr times Nc, Fr times RE, Sa times Nc, and C times RE. These seven variables accounted for 14.85 percent of the variance in RCRS scores with a standard error of the estimate equal to 30.87. The probability of any other chance combination of seven variables yielding an R^2 of this magnitude was less than .01.

The best seven-variable regression equation using squares and cross products is:

Rehabilitation Counselor Effecitveness = 182.15
-9.69 Tc - 0.001 Age squared + 0.015 Tc X Age
-0.10 Fr X Nc + 0.043 Fr X RE + 0.18 Sa X Nc
-0.05 C X RE.

While this formula did increase the level of confidence from .05 to .01 in comparison with the regression equation using variables to the first power, it did not significantly increase in ability to predict RCRS scores. Testing the effectiveness of this new equation, it was found that seventy-two percent of the actual scores fell within the predicted range of 94.09 ($\bar{X}$ RCRS) plus or minus 30.87 (one standard error of the estimate). Ninety-seven percent fell within the range of 94.09 plus or minus two standard errors of the estimate. This is not a sufficiently better predictive equation than the original one and is certainly not as usable (a cross product of Fr and RE, for example, would be difficult to define).

One importance of this finding is that it supports the original regression equation and suggests that the organic variables defined in this study are as capable of predicting the criterion variable when used "as is" (without statistical manipulation) as they are when statistical aids are used to increase their ability to predict. The

statement made earlier that certain organic variables can predict re-habilitation counselor effectiveness is therefore further supported.

Summary

This chapter presented a summary of the findings of the present study along with conclusions that could be drawn from these results. Implications for further research were also presented. Finally, a portion of the chapter was devoted to supplementary findings gleaned from the data gathered for the present investigation.

A SELECTED BIBLIOGRAPHY

Allen, Thomas. "Effectiveness of counselor trainees as a function of psychological openness." Journal of Counseling Psychology, XIV (1967), 35-40.

Arbuckle, D. S. "Client perception of counselor personality." Journal of Counseling Psychology, III (1956), 93-96.

Arbuckle, D. S. "Counseling effectiveness and related issues." Journal of Counseling Psychology, XIV (1968), 430-435.

Atlas, Irving and Mueller, Paul F. "The educational level of rehabilitation counselors as related to self and supervisor's rating of counselor performance." Rehabilitation Research Report, State of California, Department of Rehabilitation, FSS 69-12-15, (Nov. 20, 1969).

Bare, Carole E. "Relationship of counselor personality and counselor-client personality similarity to selected counseling success criteria." Journal of Counseling Psychology, XIV (1967), 419-425.

Berenson, Bernard G. and Carkhuff, Robert R. (Eds.) Sources of gain in counseling and psychotherapy. New York: Holt, Rinehart and Winston, 1967.

Bergin, Allen E. "Some implications of psychotherapy research for therapeutic practice." Sources of gain in counseling and psychotherapy. Ed. B. Berenson and R. Carkhuff, New York: Holt, Rinehart and Winston, 1966.

Blocher, Donald H. "A multiple regression approach to predicting success in a counselor education program." Counselor Education and Supervision, III (1963), 19-22.

Blocher, Donald H, Developmental counseling. New York: Ronald Press Co., 1966.

Bordin, Edward S. Psychological counseling. New York: Appleton-Century-Crofts, 1955.

Bozarth, J. D., Muthard, J. E. and Miller, L. A. "Biographical items and factors that differentiate rehabilitation counselor performance." Personnel and Guidance Journal, XLVII (1968), 163-168.

Brams, Jerome M. "Counselor characteristics and effective communication in counseling." *Journal of Counseling Psychology*, VIII (1961), 25-30.

Bruning, J. L. and Kintz, B. L. *Computational handbook of statistics*. Chicago: Scott, Foresman and Co., 1968.

Bureau of Labor Statistics, Employment outlook: counseling and placement occupations, A reprint from the *Occupational outlook handbook*, 1970-71 edition, U. S. Department of Labor, Washington, D. C.

Collins, H. A. and Smith, A. E. "The vocational values of rehabilitation counselors." *Rehabilitation Counseling Bulletin*, VIII (1964), 42-46.

Combs, A. W. and Soper, Daniel W. "The perceptual organization of effective counselors." *Journal of Counseling Psychology*, X (1963), 222-226.

Cottle, W. C. and Lewis, W. W., Jr. "Personality characteristics of counselors, II: Male counselor responses to MMPI and GZTS." *Journal of Counseling Psychology*, I (1954), 27-30.

Demos, G. D. "The application of certain principles of client centered therapy to short-term vocational-educational counseling." *Journal of Counseling Psychology*, XI (1964), 280-294.

Demos, G. D. and Zuwaylif, F. H. "Characteristics of effective counselors." *Counselor Education and Supervision*, V (1966), 163-165.

DiMichael, Salvatore G. "The professed and measured interests of vocational rehabilitation counselors." *Educational and Psychological Measurement*, IX (1949), 59-72.

Donnan, Hugh H., Harlan, Grady E., and Thompson, Seaborn A. "Counselor personality and level of functioning as perceived by counselees." *Journal of Counseling Psychology*, XVI (1969), 482-485.

Eddy, R. T. "Interest patterns of rehabilitation counselors." *Journal of Counseling Psychology*, VII (1960), 202-208.

English, H. B. and English, A. C. *A comprehensive dictionary of psychological and psychoanalytic terms*. New York: David McKay, 1958.

Foulds, Melvin L. "Self-actualization and level of counselor interpersonal functioning." *Journal of Humanistic Psychology*, IX (1969a), 87-92.

Foulds, M. L. "Self-actualization and the communication of facilitative conditions during counseling." *Journal of Counseling Psychology*, XVI (1969b), 132-136.

Foulds, M. L. "Positive mental health and facilitative genuineness during counseling." Personnel and Guidance Journal, XLVII (1969c), 762-765.

Foulds, M. L. and Warehime, Robert G. "Effects of a 'fake good' response set on a measure of self-actualization." Journal of Counseling Psychology, XVIII (1971), 279-280.

Fox, Jack, Knapp, Robert R., and Michael, Wm B. "Assessment of self-actualization of psychiatric patients: Validity of the Personal Orientation Inventory." Educational and Psychological Measurement, XXVIII (1968), 565-569.

Graff, Robert W. and Bradshaw, Harley E. "Relationship of a measure of self-actualization to dormitory assistant effectiveness." Journal of Counseling Psychology, XVII (1970), 502-505.

Graff, R. W., Bradshaw, H. E., Danish, S. J., Austin, B. A., and Altekruse, M. "The POI: a validity check." Educational and Psychological Measurement, XXX (1970), 429-432.

Gruberg, R. "The relationship of counselor interview style and rated effectiveness of response to counselor tolerance of ambiguity." Dissertation Abstracts, XXVIIIa (1967), 536.

Hamilton, Kenneth W. Counseling the handicapped in the rehabilitation process. New York: Ronald Press, 1950.

Hampton, John D. "Ambiguity tolerance as a function of age, sex, and ethnicity." Paper read at XIth Interamerican Congress of Psychology, Mexico City, Mexico, December, 1967.

Hampton, John D. "Intolerance of ambiguity: a coping mechanism or mode of evaluation?" Revista Interamericana de Psicologis, IV (1970), 43-50.

Hampton, John D. and St. Clair, J. Kenneth. "Leadership characteristics of elementary school principles." Unpublished research paper read at Oklahoma State Psychological Convention, October, 1970.

Ilardi, R. L. and May, W. T. "A reliability study of Shostrom's Personal Orientation Inventory." Journal of Humanistic Psychology, VIII (1968), 68-72.

Jackson, Mozelle and Thompson, Charles L. "Effective counselor: characteristics and attitudes." Journal of Counseling Psychology, XVIII (1971), 249-254.

Johnson, D., Shertzer, B., Linden, J. E., and Stone, S. C. "The relationship of counselor candidate characteristics and counseling effectiveness." Counselor Education and Supervision, VI (1967), 297-304.

Joslin, L. "Knowledge and counselor competence." Personnel and Guidance Journal, XLIII (1965), 790-795.

Klavetter, R. E. and Mogar, E. E. "Stability and internal consistency of a measure of self-actualization," Psychological Reports, XXI (1967), 422-424.

Knapp, Robert R, "Relationship of a measure of self-actualization to neuroticism and extraversion." Journal of Consulting Psychology, XXIX (1965), 168-172,

Knapp, Robert R. The measurement of self-actualization and its theoretical implications. San Diego: Educational and Industrial Testing Services, 1971.

Leslie, Robert and Truax, Charles B. Central facilitative conditions in rehabilitation counseling: research findings and clinical meaning. (Discussion papers, ARR&TC #262), Fayetteville: University of Arkansas, 1968,

Maslow, A. H. Motivation and personality. New York: Harper and Row, 1954.

Maslow, A. H, Toward a psychology of being. Princeton: Van Nostrand, 1967.

McCauley, W. Alfred. Definition of role and functions of the rehabilitation counselor. Conference proceedings, National Rehabilitation Counseling Association. Washington, 1972.

McClain, E, W. "Further validation of the Personal Orientation Inventory." Journal of Consulting and Clinical Psychology, XXXV (1970), 21-22.

McPhee, Wm M., Janzen, F. V,, Jorgensen, G, Q., and Samuelson, C. O. "Rehabilitation counseling in a dyad." Journal of Rehabilitation, (Jan-Feb, 1969), 18-21,

Melchers, Earl E. "The value of the Personal Orientation Inventory in predicting counselor effectiveness and the value of a counseling practicum in promoting self-actualization," Dissertation Abstracts International, XXXII-A (Jan., 1972), 3696-3697.

Miller, L. and Roberts, R, "Understanding the work milieu and personnel in developing continuing education for rehabilitation counselors." Studies in continuing education for rehabilitation counselors, No. 2, University of Iowa, Iowa City, 1971.

Morgan, Clayton A. "The personality of counseling." Blindness, (1969), 1-11.

Mueller, Paul F. and Atlas, Irving. "Most and least capable counsel-
ors." Rehabilitation research reports, State of California,
Department of Rehabilitation, FSS-69-9-2 (December 2, 1969).

Mueller, Paul F. and Atlas, Irving. "The educational level of depart-
ment of rehabilitation counselors as related to performance (with
a special section on alcoholism program counselors)." Rehabilita-
tion research report. State of California, FSS 70-9-10 (September
25, 1970).

Muthard, J. E. and Miller, L. A. "Criteria for rehabilitation counselor
performance in state vocational rehabilitation agencies." Journal
of Counseling Psychology, XI (1964), 123-128.

Muthard, J. E. and Miller, L. A. Studies in rehabilitation counselor
training: the Rehabilitation Counselor Rating Scale. Washington:
Joint Liaison Committee of the Council of State Administrators of
Vocational Rehabilitation and the Rehabilitation Counselor
Educators, (1968).

Passons, Wm and Olsen, Leroy C. "Relationship of counseling character-
istics and empathic sensitivity." Journal of Counseling Psychology,
XVI (1969), 440-445.

Patterson, C. H. "Selection of rehabilitation counseling students."
Personnel and Guidance Journal, XLI (1962a), 318-324.

Patterson, C. H. "Test characteristics of rehabilitation counselor
trainees." Journal of Rehabilitation, XXVIII (1962b), 15-16.

Patterson, C. H. "The selection of counselors." Research in counsel-
ing: evaluation and refocus. Ed. J. M. Whiteley. Columbus, Ohio:
Merrill, 1967.

Polmantier, P. "The personality of the counselor." Vocational Guidance
Quarterly, XV (1966), 95-100.

Rosen, J. "The predictive value of personal characteristics associated
with counselor competency." Dissertation Abstracts, XXVII (1967),
2408-2409.

Runyon, Richard and Haber, Audrey. Fundamentals of behavioral
statistics 2nd ed., Reading, Massachusetts: Addison-Wesley, 1971.

Rusalem, Herbert. "An analysis of the functions of state vocational
rehabilitation counselors with implications for the development
of a training course at Teachers College." Unpublished doctoral
dissertation, Columbia University (1951). As reported in
Vocational rehabilitation of the disabled: an overview. Ed.
Malikin, Dand Rusalem H. New York: New York University Press,
1969.

Sather, Wm S., Wright, George N. and Butler, Alfred J. "An instrument for the measurement of counselor orientation." Wisconsin studies in vocational rehabilitation. Madison: University of Wisconsin Regional Rehabilitation Research Institute, (1968).

Seidenfield, Morton A. "The need-oriented profession of rehabilitation counseling: implications for selection, training, and services." Journal of Rehabilitation, XXVIII (1962), 11-13.

Service, Jolayne. A user's guide to the Statistical Analysis System. Raleigh, N. C,: Student Supply Stores, North Carolina State University, August, 1972.

Shertzer, Bruce and Stone, Shelly. Fundamentals of guidance. New York: Houghton Mifflin Co., 1971.

Shostrom, Everett L, "An inventory for the measurement of self-actualization." Education and Psychological Measurement, XXIV (1964), 207-218.

Shostrom, Everett L. Personal Orientation Inventory. San Diego, California: Educational and Industrial Testing Service, 1966.

Shostrom, E. L, and Knapp, R. R. "The relationship of a measure of self-actualization (POI) to a measure of pathology (MMPI) and to therapeutic growth." American Journal of Psychotherapy, XX (1966) 193-202.

Siegel, S. "Certain determinants and correlates of authoritarianism." Genetic Psychological Monograph, XLIX (1954), 187-229.

Soares, L. M., Lane, P. A. and Silverstone, L. S. The rehabilitation counselor. Bridgeport, Conn.; Antoniak, 1969.

Steel, Robert and Torrie, James. Principles and procedures of statistics. New York: McGraw-Hill, 1960.

Stefflre, B., King, P. and Leafgren, F. "Characteristics of counselors judged effective by their peers." Journal of Counseling Psychology. IX (1962), 335-340.

Trotter, Ann B,, Uhlig, George E., and Fargo, Glenn E. "Self-actualization as a predictor of rehabilitation counselor success." Rehabilitation Counseling Bulletin, XV (1971), 58-67.

Truax, Charles B. and Carkhuff, Robert R. Toward effective counseling and psychotherapy: training and practice. Chicago: Aldine, 1967.

Truax, Charles B. and Wargo, Donald G. "Psychotherapeutic encounters that change behavior: for better or worse." American Journal of Psychotherapy, XX (1966), 499-520.

Truax, Charles B., Wargo, Donald G., Frank, Jerome D., Imber, Stanley, D., Battle, Carolyn, Hoehn-Saric, Rudolph, Nash, Earl H., and Stone, Anthony. "Therapist empathy, genuineness and warmth and patient therapeutic outcome." Journal of Consulting Psychology, XXX (1966), 395-401.

Tyler, Leona E. The work of the counselor. 2nd ed. New York: Appleton-Century-Crofts, 1961.

Tyler, Leona E. The work of the counselor. 3rd ed. New York: Appleton-Century-Crofts, 1969.

Walton, Francis X. and Sweeney, Thomas J. "Useful predictors of counseling effectiveness." Personnel and Guidance Journal, XLVIII (1969), 32-38.

Whiteley, J. M. "Counselor education." Review of Educational Research, XXX (1969), 173-187.

Whiteley, J. M., Sprinthall, Norman A., Mosher, Ralph L. and Donaghy, Rolla T. "Selection and evaluation of counselor effectiveness." Journal of Counseling Psychology, XIV (1967), 226-234.

APPENDIX A

DESCRIPTION OF THE PERSONAL ORIENTATION

INVENTORY SCALES

The following is a description of the scales of the POI as given

in the manual:

I. Ratio Scores

1. T_I/T_C Time Ratio - Time Incompetence/Time Competence-
    measures degree to which one is "present" oriented,

2. O/I Support Ratio - Other/Inner - measures whether re-
    activity orientation is basically toward others or self
    (Dependent or Independent).

II. Sub-Scale

3. SAV Self-Actualizing Value - Measures affirmation of a
    primary value of self-actualizing people,

4. Ex Existentiality - Measures ability to situationally
    or existentially react without rigid adherence to
    principles.

5. Fr Feeling Reactivity - Measures sensitivity of respon-
    siveness to one's own needs and feelings.

6. S   Spontaneity - Measures freedom to react spontaneously
    or to be oneself,

7. Sr Self Regard - Measures affirmation of self because
    of worth or strength.

8. Sa Self Acceptance - Measures affirmation or acceptance
    of self in spite of weaknesses or deficiencies,

9. Nc Nature of Man - Measures degree of the constructive
    view of the nature of man, masculinity, femininity,

10. Sy Synergy - Measures ability to be synergistic, to
    transcend dichotomies.

11, A   Acceptance of Aggression - Measures ability to accept
    one's natural aggressiveness as opposed to defen-
    siveness, denial, and repression of aggression.

12. C   Capacity to Intimate Contact - Measures ability to
    develop contactful intimate relationships with other
    human beings, unencumbered by expectations and
    obligations,

APPENDIX B

<u>TOLERANCE-INTOLERANCE OF COGNITIVE</u>

<u>AMBIGUITY</u> TEST

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

PICTURE - STATEMENT EVALUATION

Instructions:
    You have been given a group of pictures and this sheet of statements. If you feel that any of the persons pictured on the other sheet made one of the statements on this sheet, put the number of that picture on the line provided beside that statement. If you do not associate a particular statement with a particular picture, leave that line blank.

___A.   "Yesterday, you may have had a reason."

___B.   "We knew that it would make news."

___C.   "Most people get pretty much what they deserve."

___D.   "I can't agree to any rushing of this question."

___E.   "When the light is green, go."

___F.   "TV is killing us--costs are rising."

___G.   "Then I'm not going."

___H.   "The future of the world is being shaped by machines."

___I.   "Are we half through, finished or what?"

___J.   "I've seen him fall asleep many times."

___K.   "I am delighted to be here today."

___L.   "For the first time in your life, you are wrong."

___M.   "This is a strange kind of thing."

___N.   "I never look backward."

___O.   "The news was too good to be kept quiet for long."

___P.   "I don't understand any of you."

PLEASE TURN TO THE NEXT PAGE AND CONTINUE!

Picture-Statement Evaluation (Continued)

On the previous page you were asked to match pictures and statements; you may have many, or only a few, or no matches. On this page--only for the matches you made on the previous page-- show how certain you feel that the person in the picture made the statement that you matched it with.

Please make a check mark on only those scales which are next to the matches you made. Place the check mark in the box on the scale to show how certain you are about the match you made. Remember, do only the matches you actually made. Do not mark the scale where there are no matches.

Please use the following scale as a guide.

	Very Certain	Certain	Slightly Certain	Unsure	Slightly Uncertain	Uncertain	Very Uncertain
A.							
B.							
C.							
D.							
E.							
F.							
G.							
H.							
I.							
J.							
K.							
L.							
M.							
N.							
O.							
P.							

APPENDIX C

BIOGRAPHICAL INFORMATION SURVEY

113

BIOGRAPHICAL INFORMATION SURVEY

Please complete the following:

1. Counselor Code Number_____ 2. Male_____ Female_____

3. Date of birth_____
               month   year

4. Dates of employment with Oklahoma Rehabilitative Services:
   _____ to present
   Month   year

5. Has employment with the agency been continuous? yes_____ no_____
   If no, please indicate previous dates of employment.
   From_____ to _____
        month   year   month   year

6. Rehabilitation-related experience prior to employment with Oklahoma
   Rehabilitative Service (e.g. school teaching, caseworker, employment
   service interviewer, etc.)
   a. None _____
   b. Position Title _____
      Brief description of duties if not self-explanatory _____

      Dates of employment: From_____ to _____
                                  month   year   month   year
   c. Position Title_____
      Brief description of duties if not self-explanatory_____

      Dates of employment: From _____ to _____
                                 month year   month   year
                (Use reverse side if additional space is needed)

7. Education
   a. Please indicate highest level of education completed:
      _____ Bachelor's degree
      _____ Bachelor's degree with some graduate work (less than 30
             graduate hours)
      _____ Master's equivalent (30 or more graduate hours - no degree)
      _____ Master's degree
      _____ Master's degree plus at least twelve hours of additional
             graduate work
      _____ Special studies (LL.B., B.D., etc.) Please indicate below.
   b. Major area of study:
      1. undergraduate_____
      2. graduate_____
   c. Are you a graduate of the Rehabilitation Counselor Training
      Program at Oklahoma State University? yes_____ no _____

8. Comments or explanations of any of the items listed above: _____
   _____
   _____
   _____
   _____

APPENDIX D

REHABILITATION COUNSELOR RATING SCALE

THE REHABILITATION COUNSELOR RATING SCALE

developed by

John E. Muthard   Leonard A. Miller
University of Florida   University of Iowa

Please review the instructions before beginning the rating. We believe this will help you work more confidently and efficiently at rating your counselor staff. Your evaluations will enable you and your staff to systematically assess counselor performance. Periodic appraisal by you will provide counselors a basis for knowing how they are doing on their job. The ratings will also provide information which can be used for planning the professional development of each counselor and for making appropriate staff assignments.

INSTRUCTIONS

1. On the attached sheet is listed the code numbers of the counselors on your staff whom we would like for you to rate. You will use the numbers before each counselor's code number to rate him. You may detach the sheet to facilitate your rating job.

2. Each rating statement is followed by a seven-point rating continuum over which all the counselors you have known might be distributed.

3. Comparing the counselor you are rating with others you have known, place his number at that point on the rating continuum which you think best describes his performance on the item.

4. Use the end points on the continuum whenever the counselor is markedly well or badly described by the statement. End-point ratings in no way imply that a counselor is perfect or incompetent.

5. Feel free to place as many or as few counselors as you wish at any one of the seven points for each item.

6. Do not place any ratings on the lines between categories.

7. PLEASE RATE EVERY COUNSELOR ON AN ITEM BEFORE GOING ON TO THE NEXT.

8. When you finish your rating, attach the list of counselor code numbers to the rating form and return it to us. We will use the composite rating form you complete to compile rating factor scores for each counselor you rated.

RATING EXAMPLE

Drives cautiously and carefully.

```
    4    / 8   2    / 1    6  /   3       /   5      /   7      /
Almost Always                                          Sometimes
```

THE REHABILITATION COUNSELOR RATING SCALE

1. Knows tests well and chooses those that are appropriate to the client's needs,

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

2. Helps clients carefully select suitable jobs.

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

3. Carries out his promises to clients.

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

4. Complies with agency regulations without close supervision.

_____/_____/_____/_____/_____/_____/_____

Does well independently   Needs close supervision

5. Effectively uses medical and/or psychological findings.

_____/_____/_____/_____/_____/_____/_____

Thoroughly   Incompletely

6. Participates in community rehabilitation efforts.

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

7. Knows how to apply agency's rules and regulations.

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

8. Presents his ideas clearly and factually to other counselors.

_____/_____/_____/_____/_____/_____/_____

Successful   Unsucessful

9. Makes good vocational diagnoses and evaluations.

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

10. Manages his time effectively.

_____/_____/_____/_____/_____/_____/_____

Very Efficient   Relatively Inefficient

-2-

11. Knows the functions of community service agencies.

_____/_____/_____/_____/_____/_____/_____

Well Informed   Relatively Uninformed

12. Takes care of business promptly.

_____/_____/_____/_____/_____/_____/_____

Very Prompt   Frequently Procrastinates

13. Has basic knowledge of counseling principles and methods.

_____/_____/_____/_____/_____/_____/_____

Very Knowledgeable   Relatively Uninformed

14. Provides good follow-up services after the client has obtained a job.

_____/_____/_____/_____/_____/_____/_____

Consistently   Infrequently

15. Shows no bias toward individuals of varied religious, ethnic, color or disability types.

_____/_____/_____/_____/_____/_____/_____

Free of prejudices   Prejudiced

16. Appears relaxed and unhurried with his clients.

_____/_____/_____/_____/_____/_____/_____

Very Relaxed   Hurried and Anxious

17. Shows basic understanding of the psychodynamics of human behavior.

_____/_____/_____/_____/_____/_____/_____

Good Understanding   Little Understanding

18. Persuades employers to consider and hire suitable clients.

_____/_____/_____/_____/_____/_____/_____

Very Suceessful   Unsuccessful

19. Respects the confidentiality of certain information.

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

20. Relates well with his co-workers.

_____/_____/_____/_____/_____/_____/_____

Almost Always   Sometimes

21. Understands basic rehabilitation concepts.

_____/_____/_____/_____/_____/_____/_____

Well Informed   Relatively Uninformed

22. Shows enthusiasm for his job as a counselor.

```
        /         /         /         /         /         /
```
Very Enthusiastic   Shows Little Enthusiasm

23. Is able to view the client's situation as the client does,

```
        /         /         /         /         /         /
```
Very Empathic   Shows Little Empathy

24. Presents a positive "agency image" to the community.

```
        /         /         /         /         /         /
```
Successfully   Unsuccessfully

25. Accurately assesses the nature of a client's disability and understands its vocational significance.

```
        /         /         /         /         /         /
```
Highly skilled   Relatively Unskilled

26. Helps his clients prepare for job hunting.

```
        /         /         /         /         /         /
```
Much Preparation   Little Preparation

27. Focuses upon the client's needs rather than his own.

```
        /         /         /         /         /         /
```
Almost Always   Sometimes

28. Keeps abreast of the research and new developments in rehabilitation counseling

```
        /         /         /         /         /         /
```
Much Involvement   Little Involvement

29. Involves the client in the decision-making process.

```
        /         /         /         /         /         /
```
Much Involvement   Little Involvement

30. Avoids stereotypes in determining occupational objectives.

```
        /         /         /         /         /         /
```
Imaginative   Somewhat Stereotyped

31. Knows the scope and limitations of his agency's services.

```
        /         /         /         /         /         /
```
Informed   Uninformed

32. Presents self to employers and agencies in a clear and concise manner.

```
        /         /         /         /         /         /
```
Almost Always   Sometimes

?

VITA

David LeRoy Jeffrey

Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF THE RELATIONSHIP BETWEEN REHABILITATION COUNSELOR
EFFECTIVENESS AND SELECTED COUNSELOR VARIABLES

Major Field: Educational Psychology

Biographical:

Personal Data: Born in Oklahoma City, September 28, 1940, the son
of Russell and Adeline Jeffrey. Married, three children,
ages seven, six, and two.

Education: Attended Sequoyah Elementary School in Oklahoma City;
graduated from Taft Junior High School and Northwest Classen
High School in Oklahoma City in 1958; received the Bachelor
of Science degree from Oklahoma State University, Stillwater,
with a major in psychology, in 1963; received the Master of
Science degree from Oklahoma State University, Stillwater,
with a major in psychology-rehabilitation counseling, in
1965; completed the requirements for the Doctor of Education
degree at Oklahoma State University in July, 1973.

Professional Experience: Rehabilitation Counselor, Oklahoma
Rehabilitative Services, Tulsa, Oklahoma, January, 1965 to
June, 1966; Instructor and Director of In-Service Training,
Rehabilitation Counselor Training Program, Oklahoma State
University, June, 1966 to present.

Professional Organizations: Oklahoma Education Association,
National Rehabilitation Association, American Personnel and
Guidance Association, Council of Rehabilitation Counselor
Educators.

Publications:
Jeffrey, D. L. (Ed.), A glossary of medical terms. Compiled
especially for the Clearing House of Rehabilitation
Materials at Oklahoma State University.

Jeffrey, D. L., Pertinent points on placement. Reproduced
    and distributed by the Clearing House, Oklahoma State
    University, 1967, and revised, 1969.

Jeffrey, D. L., Counseling for job readiness. In Hardy, R.
    and Cull, J. (Eds.) Special problems in counseling the
    high school student. Springfield, Illinois: Charles C.
    Thomas, to be published in 1973.