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Title: The Effects of a Career Class With a T-Group Emphasis on the Level of Vocational Self-Concept Crystallization and Self-Esteem Among Selected University Freshmen

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The purpose of this study was to answer two questions, i.e., whether a career class with a T-group emphasis enhanced levels of vocational self-concept crystallization and self-esteem in selected university freshmen and whether shifts in vocational self-concept crystallization were related to shifts in self-esteem after the treatment. Forty-eight freshman volunteers from the Spring term of 1981 at Oregon State University were randomly assigned to four groups, including three similar treatment groups and one no-treatment control group. The treatment included five homework assignments and seven weekly T-group sessions of three hours each, entailing one hour of lecture on personal growth and vocational selection topics and two hours of small group experience.

A significantly higher formulation of participants' vocationally relevant self-attributes was revealed through an analysis of covariance ($F = 10.032$, $p < .001$), as measured by Barrett's Vocational Rating Scale. Two of the three treatment groups accounted for the difference,

as indicated by Scheffe's multiple comparison of means. Moderate evidence of a higher level of global self-esteem was revealed ($F = 2.602$, $p < .065$), as measured by the Tennessee Self-Concept Scale. Since all 34 treatment participants experienced the same lectures and homework assignments but different small-group experiences, the conclusion was made that the small-group experience may have mediated the assimilation of vocational materials into participants' self-concepts. The different findings among the three treatment groups on vocational self-concept crystallization and the failure to reach significance on global self-esteem may be due to facilitator inexperience with T-groups. The facilitators were first-year counselor trainees conducting their first groups.

A substantial positive relationship between shifts in vocational self-concept crystallization and in global self-esteem for the four groups combined was revealed through the Pearson r ($r = .6479$, $t = 5.64$, $p < .001$). This relationship indicated that the changes on the two variables under this treatment did not vary independently of each other for the population studied. This relationship held for two of the three treatment groups and for the control group. Due to one treatment group not exhibiting the relationship, further research was recommended to isolate factors contributing to the relationship of shifts in vocational self-concept crystallization with shifts in self-esteem.

The Effects of a Career Class With a T-Group Emphasis on the Level of Vocational Self-Concept Crystallization and Self-Esteem Among Selected University Freshmen

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I present this project as a gift to those who professionally counsel for vocational decision and for those counselees who may benefit from that counseling. The gift is offered in memory of my brother, James, who first exposed me to the benefits which counseling can hold for people. The gift is also offered in recognition of the love and support of my wife, Kathleen, who supplies me with the source of my motivation.

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1.0 Introduction

Professionals working in the area of vocational counseling in the past 30 years have put great emphasis on instrumentation, information, developmental stages and decision making skills. Such emphases rest on the assumption that the services provided to counselees will result in a self sustained initiative for utilization of these services. In those cases where such an assumption is not met by the counselees, the awakening of a proactive stance in such individuals may become a more appropriate point of emphasis. Although this awakening is recognized as being within the realm of vocational counseling, such a realm does not command very detailed coverages in most texts within the field.

One element to be considered in the awakening of proactive tendencies in counselees is their levels of self-esteem. Counselees who are low in self-esteem may be less likely to take command of the process of crystallizing their vocational self-concepts and pursuing appropriate vocational directions. This study examines this interrelationship of the psychological variables of vocational self-concept crystallization and self-esteem.

In order to examine the problem of using a treatment designed to enhance the self-esteem of vocationally undecided university freshmen, this chapter presents a conceptualization of how the two variables of vocational self-concept crystallization and self-esteem are interrelated. The essential terminology, the significance of the

research and the objectives of the research are presented in order to outline the process of the research in analyzing this interrelationship.

1.1 Statement of the Problem

The identification of treatments which enhance vocational self-concept crystallization for college students low in self-esteem is a problem facing vocational counseling. University freshmen are acquiring career information, developing decision making skills and learning about their developmental stages. University freshmen need the development of positive self-esteems, however, in order to commit themselves to their own personal attributes in the face of external forces contrary to these attributes. In essence, they need the strength of character to derive meaning and direction from what they are acquiring. This problem of enhancing self-esteem will be investigated in this study by seeking an answer to the following question: "Do T-groups consisting of university freshmen who take vocational selection as their topic enhance levels of self-esteem and vocational self-concept crystallization?"

The area of vocational counseling encompasses a whole spectrum of approaches available to the counselor. Morrill and Forrest (1970) divide these approaches into four types of events. The first type provides the client with information and helps the client to clarify issues related to many vocationally relevant decisions to be made by the client. The second type focuses on decision making skills which can be applied to many vocationally relevant decisions to be made by the client. The third type of event presents the client with the developmental processes and choices to be made existent in the lifespan of an individual. The fourth type facilitates the utilization of "personal attributes to achieve self-determined objectives" so that the

client exercises choice, as opposed to solely reacting to future external forces. The literature in the area of vocational counseling abounds with studies of the first three types with a somewhat smaller representation of the the fourth type. Descriptions follow which touch upon the points of emphasis for each type. The relevance of self-esteem, the structure of the vocational self-concept, the relationship of these two constructs and the role T-groups may play in the identification of a type-four approach also follow.

Type-One Events

One typical approach to type-one events in vocational counseling usually involves an interest inventory to be given to the client for later interpretation. Self-assessment or measurement of abilities, competencies and skills will often take place as well. In many cases, attitudes towards specific jobs or job clusters are also checked during the instrument interpretations, the discussion sessions or as written exercises or card sorts.

If the client lacks knowledge of careers, the counselor can usually provide the client with access to a library of career information. The library may contain booklets, slide shows, filmstrips, books and file cabinets, all of which are full of information. If the client seeks direction in the use of this information, the counselor aids the client in the decision process by teaching the client to compare occupational characteristics to the client's personality typology. Once a tentative decision is reached, the client is ready for interviews with people performing in the job chosen in order to decide if the client wants to pursue a work/study in the area. Throughout this whole approach an

emphasis is placed on teaching the client a set of skills applicable to making a decision now and in the future.

The approach just described has come to be known by many as vocational counseling, an area falsely compartmentalized from personal counseling. Morrill and Forrest (1970) state:

> There has been a tendancy to view vocational counseling as relatively dull and routine, while personal counseling is interesting and dynamic. In many cases vocational counseling is delegated to the less able, less trained counselor, while personal counseling is the domain of the better qualified professional.

To the extent that this statement is correct, the profession has failed to meet the psychological needs of its clients. It is akin to viewing marriage counseling as providing clients with sex education or substance abuse counseling as providing clients with publications and movies on drugs. Like most areas of counseling, vocational counseling has an informational component. It also has a dynamic component. For this reason the personal component of vocational counseling needs to be recognized as a primary component which is not to be excluded from vocational counseling.

Type-Two Events

The second type of event involves training clients in a step-by-step process of arriving at a vocational decision (Tolbert, 1980). This process begins with the expressed need of the client to decide upon or select a goal. From this expressed need, the counselor stimulates the client to enumerate two or more alternatives. These alternatives are then explored in terms of gathering career information. The rewards for each of the alternatives are analyzed, usually in terms of which client

values can be fulfilled. These rewards are weighed by client perceptions of success in attaining the rewards from each course of action. The final decision is based upon an estimate of which alternatives will maximize gain for the client. This process usually results in uncovering more alternatives for the client. The process is then repeated at different stages of the implementation of the plan.

The most crucial aspect of this approach is the point at which the client decides which rewards are to be pursued. These rewards, or values to be fulfilled, require the client to compare possible outcomes with an internal identity or personality structure. This comparison provides the basis for whether a course of action feels right or not. In those cases where such a comparison cannot take place, the need for "personal counseling" arises. Thus, once again, the need for coupling type-four events with the other types is exposed. There is also the danger that all the steps may be followed, counseling may be terminated and future implementation of the decision may fail due to a lack of a positive self-esteem or some other personal difficulty.

Type-Three Events

The third type of event involves educating clients on their past, present and future career developmental stages for future planning. Crites (1974) recognizes Donald Super as "foremost among the architects of this frame of reference." Super and most other developmental theorists place an emphasis on appraising the stage of development of the client and attempting to learn the client's "life history data." From this analysis, the counselor utilizes the theory of developmental stages to help the client anticipate and plan for future stages of

development. Super's theory incorporates the use of the counseling techniques of reflection and clarification of feeling for the purpose of attaining self-acceptance and insight. He also maintains that the best vocational counseling combines the components of the rational and emotional realms (Crites, 1974).

To the extent that counselors emphasize the orientation, exploration, decision making and reality-testing aspect of Super's theory without the use of counseling techniques addressing self-acceptance and insight, they also fail to meet the psychological needs of their clients. If the "less able and less trained counselors" described by Morrill and Forrest (1970) restrict vocational counseling to an analysis of stages, they may remain content that a troubled client is just at a normally lower stage of vocational maturity. A psychological process may be operating which restricts the client to that particular stage. Support for this possibility exists in a statement by Jordaan (1974) indicating that even those counselors inclined to the newer developmental theories have difficulty applying them in their daily work with students.

Type-Four Events

The issues involved in combining a type-four approach with the other three approaches to vocational counseling has materialized with recent developments in measuring vocational maturity. Vocational maturity is defined by Hilton (1974) as "the extent to which an individual has mastered, relative to his peers, the knowledge, attitudes, and skills required for successfully coping with career planning and implementation." Such factors as finding a job, holding a

job and enjoying a job provide evidence of vocational maturity. Until recently, the area of vocational maturity has not been subject to objective measurement (Crites, 1974 and Harmon, 1974). New measures recognize that vocational maturity encompasses a continuum of coping dimensions (Forrest, D. and Thompson, A., 1974; Crites J., 1974; and Barrett, T. and Tinsley, H., 1977b) instead of a discrete decision, as was once widely believed.

With the recent development of such measuring instruments and the suggestion that vocational maturity is a continuum has come the ability to assess the relationship of certain aspects considered to be of the "personal counseling" realm with the "vocational counseling" realm. Kimes and Troth (1974) have found that clients with high levels of career decisiveness and of satisfaction with career decision show significantly different levels of mean trait anxiety scores on the X-2 scale of the State-Trait Anxiety Inventory ($p<.001$) from clients who are low on these measures. Barrett and Tinsley (1977b), Korman (1966) and Droessler (1977) found significantly different levels of self-esteem for different levels of vocational decision. Russell (1975) found that the use of a Human Potential Seminar as a treatment showed significant differences on the Rotter Locus of Control instrument as well as on vocational choice and self-esteem. One can, therefore, theorize that such factors as anxiety, self-esteem and locus of control can be manifest in career decision difficulty as well as in marital difficulty (Barnett and Nietzel, 1979), substance abuse difficulty (McClelland et. al., 1972) or other areas of mental health.

Self Esteem

Perhaps partially due to the impact of developmental theories on vocational counseling, self-esteem has received a wide degree of interest. Self-esteem is closely related to self-concept, which is a construct central to career developmental theories. Self-esteem is also a construct central to such "personal counseling" theories as those put forth by Rogers (1961) and Ellis and Harper (1978). The recognition of self-esteem as a component of career development is evident in Barrett's (1976) construction of an instrument to measure vocational self-concept crystallization. Barrett drew heavily on Super's concepts of clarity, certainty and structure. These three concepts are defined as follows:

1.) Clarity is the sharpness or degree of awareness of an attribute.

2.) Certainty refers to the confidence with which an individual has the ability to make choices and to pursue actions designed to implement them.

3.) Structure is the degree to which various self-concepts are internally differentiated within the vocational self-concept system.

The concept of certainty, or self-esteem, is closely intertwined with the other two concepts. Vocational counseling would, therefore, be aimed at enhancing awareness of oneself, differentiating and integrating the components of oneself and developing the confidence to implement one's self-attributes in that aspect of one's life which is related to work and leisure.

Vocational Self-Concept Structure

Holland (1966) puts forth six vocational personality types. Aspects from each type exist in every individual, and a failure to differentiate these types is one explanation describing vocational indecision. This description is very similar to Super's definition of structure. Holland describes the components of that structure, which will be presented in Section 2.2.

Relationship of Self-Esteem to Vocational Self Concept

Ziller et. al. (1967) maintain that there is a relationship of self-esteem to structure and behavior. They indicate that the behavior of the person who is low in self-esteem is not mediated by the self-concept and is, therefore, more field dependent. This field, or environment, changes rapidly around the person, a fact which results in behavior which is inconsistent. This has a weakening impact on structuring and integrating the personality. Ziller et. al. (1967) cite that these premises were derived from the theory of Kurt Lewin, a forefather of the T-group (Cohen and Smith, 1976).

One deduction to be derived from the material presented above by Ziller et. al. is that the person low in self-esteem behaves in accordance with whatever is perceived to be the vocational type presented to the person by the particular environment the person is in. When the environment changes, so does the person. In essence, this person becomes a Jack of all trades and master of none. The person does not identify with any of the six Holland types and there is, therefore, no basis for making a choice.

T-Groups as Type-Four Events

Although the position can be held that providing clients with career information for the matching of personal attributes with occupational characteristics will enhance self-esteem (Perovich and Mierzwa, 1980), such self-esteem appears dependent on a stimulus provided from outside of the individual. One can theorize that a certain career is chosen because this was the way one was told to choose by the counselor or because an interest inventory guided the person to a decision. The threat of not being able to communicate to others what occupation one is pursuing in life is removed, and the reduced threat enhances self-esteem.

A counter rationale would be to utilize treatment which not only exposes the clients to career testing, career information and goal selection, but also exposes the clients to a T-group experience for personal growth and development. Burns (1979) indicates that such a group, where member relationships are based on feelings, leads to self-understanding, self-acceptance and "more positive attitudes to self and to others." Rogers (1970) expresses that such groups change perceptions of those who believe that their hidden real selves are ones "which no one could love." This change occurs through the communication of caring. This inner realization that one is worthwhile coupled with greater self-understanding can provide the client with an increased internal frame of reference for utilizing career information for career choice and also for implementing that choice. Such a rationale suggests that the incorporation of a T-group in vocational counseling may well add type-four events to the vocational couseling process.

This study incorporates a T-group treatment in the pursuit of

adding type-four vocational counseling events to the other three events of vocational counseling. The study will investigate the effect of a T-group treatment on vocational self-concept crystallization using Barrett's measurement of Super's concepts of clarity, certainty and structure and on self-esteem using the Tennessee Self-Concept Scale. The incorporation of a treatment for vocational crystallization which includes a treatment addressing the self-esteem factor has not been widely addressed. Only four such studies have been located by this writer (Gunter, 1975; Hamm, 1978; Perovich and Mierzwa, 1980 and Russell, 1975). There were considerable differences in approaches and procedures which have contributed to apparent differences in the results of these studies. These differences will be addressed in Section 2.4. In order to clarify the essential concepts to be utilized in this study, a definition of terminology is now provided.

1.2 Definition of Terms

The terms to be defined include the independent and dependent variables of the study. Each variable will have both a conceptual and an operational definition which are related to one another.

Self-Esteem

The conceptual definition of self-esteem is that it is the "... evaluative, judgmental, or affective aspect of a person's self-conception" (Wells and Marwell, 1976). This self-conception refers to the understanding one has of oneself, or one's internal frame of reference. It is one aspect of the phenomenological part of the personality. The operational definition of self-esteem is that it is the Total P score on the Tennessee Self-Concept Scale (Fitts, 1965). It is the degree to which people like themselves, feel value and worth, have confidence in themselves and behave accordingly. This measure is global, rather than specific to the vocational aspect of self-concept.

Vocational Self-Concept

The vocational self-concept is defined as "the cluster of self-perceptions relating to the world of work" (Barrett, 1977b). Barrett does not, however, provide specific definitions of these self-perceptions. He does describe them as vocationally relevant self-attributes which are differentiated from one another. Holland (1973) provides six personality types derived from clusters of attributes ascribed to oneself from Holland's Self Directed Search instrument. Holland also emphasizes the importance of differentiation

in the structure of these clusters. Due to the similarities inherent in both Barrett's and Holland's theoretical constructs, the structure of vocational self-concept is herein defined as the Holland vocational personality types which one attributes to oneself.

Vocational Self-Concept Crystallization

Barrett (1977b) gives the conceptual definition of vocational self-concept crystallization as the degree to which the constellation of vocationally relevant self-attributes are well formulated, i.e., possess clarity, certainty and internal differentiation or structure. The operational definition refers to one's score on Barrett's Vocational Rating Scale.

T-Group

The T-group consists of a small number of members, usually numbering between 6 and 12, who create their own goals and methods of operation in consultation with the facilitator. The counselor facilitates processes of interpersonal interactions which focus on the expression of feelings and thoughts of the members in relation to one another and to oneself at the particular moment (Rogers, 1970). Cohen and Smith (1976) delineate the T-group operationally from other groups through the conceptualization of the intervention cube. T-groups utilize all the dimensions of the cube, while other types of groups do not. Interventions may be of a conceptual, experiential or structural type with high, medium or low intensity directed to the group, interpersonal or individual level. A more detailed presentation of T-group treatment may be found in Chapter 3.0.

1.3 Significance of the Study

The bulk of vocational counseling research has centered around the inclination of counselors to follow a formula, or mechanistic, approach to the problem of vocational maturation. The formulae were of the types found in providing career information, teaching decision making skills and teaching developmental stages. The area of facilitating a self-actualization approach to vocational maturation with self-esteem as a dependent variable has been researched very little, as pointed out in the statement of the problem. The primary significance of this study is, therefore, to provide further exploration of Morrill and Forrest's (1970) type-four approach by the employment of a new treatment directed at both the "vocational" and "personal" realms. Both of these realms are treated as one.

The implications of identifying and refining a type-four, self-actualization approach which is applicable to groups of clients are such that the whole perspective of vocational counseling as nonpersonal in nature could change. The first three types of vocational counseling events are, therefore, limited to vocational diagnosis and the attempt to help counselees decide on an appropriate self-concept to vocation fit. The identification of an effective type-four event goes beyond the level of the first three events by allowing necessary psychological changes to take place which allow the fitting process to culminate. The psychological change of self-esteem enhancement may remove the blockage to the fitting process.

Even more importance exists in the impact such a treatment might have on clients. The first three types of vocational counseling

contribute to incorporating the client into a system or program which has been developed over the past 15 to 20 years. Such a system often minimizes client opportunities for deeply meaningful self-expression. A scenario can develop whereby a client who is ostensibly seeking career information, but, in reality, is attempting to form a deep enough relationship with a counselor to share feelings of alienation and lack of confidence is referred to a computer containing career information. If such a client were placed into a T-group treatment, as is presented in this study, the opportunity to confront the feelings of alienation and lack of confidence in the client would be enhanced. The client would receive a more clearly expressed invitation to wrest the control over the life-long vocational maturity process from the environment and give it to the workings of an internal vocational self-concept system. The services provided in the first three types of vocational counseling could then be employed by the client in the present as well as in the future.

For treatment of the problem, counselors would need to take into consideration whether changes in the two variables are immediately correlated. If the treatment addresses only one of the two variables of self-esteem or vocational self-concept crystallization or if shifts in the two variables are uncorrelated, the weakness of not enhancing the other variable may provide a delayed regression of the variable which was enhanced.

The use of T-groups to treat for enhancement of self-esteem has been widespread in "personal counseling" (Burns, 1979 and Gibb, 1974). The marriage of T-groups to the first three types of vocational counseling has not been so widespread. When one considers the numerous

variations in kinds of T-groups, one may conclude that the utilization of T-groups with the first three types of vocational counseling requires much further study. This study focuses the treatment on facilitating the processes of communication as opposed to focusing on intrapersonal functioning.

This study contributes to the identification of an effective type-four approach by providing data which may invite studies comparing this approach with Schutz's FIRO-B approach employed by Perovich and Mierzwa (1980), the Human Potential Seminar approach employed by Russell (1975) or any other approaches. This study also provides data to enable comparison of T-group treatments to other schools of thought, such as the cognitive treatments of Rational Emotive Therapy and Transactional Analysis. Both of these possibilities have significance in that they will further our knowledge of treating for both vocational maturity and self-esteem.

The study also provides a basis for future refinement of the T-group approach to the problem. This refinement may include the identification of subpopulations within the freshman class who may benefit more fully from such an approach. The possible need to extend treatment for one or both of the variables may be identified. In addition, the approach may warrant further refinement or study of its impact on other psychologically related variables, such as anxiety, locus of control or self-actualization. The objectives of this research were designed to pursue these explorations associated with employing a T-group approach to vocational counseling.

1.4 Objectives

The objectives of the research are as follows:

1.) To assess the effectiveness of a T-group treatment on levels of vocational self-concept crystallization.

2.) To assess the effectiveness of a T-group treatment on levels of self-esteem.

3.) To assess the relationship which exists between shifts in levels of vocational self-concept crystallization and in shifts in levels of self-esteem.

4.) To assess the possibility that other variables not investigated in this study contribute to various differences in levels of vocational self-concept crystallization and self-esteem in a T-group treatment.

5.) To assess the possibility that other variables not investigated in this study contribute to relationships between shifts in levels of vocational self-concept crystallization and of self-esteem in a T-group treatment.

The objectives of the research reflect the null hypotheses found in section 3.6. The first three objectives correspond with the three null hypotheses. Objectives four and five reflect the replication inherent in the study. If the findings of the three treatment groups differ in significance, the possibility exists that unmeasured and/or uncontrolled variables existed.

1.5 Summary

The identification of treatments which enhance vocational self-concept crystallization for college students low in self-esteem is a problem within the vocational counseling field. This study addresses this problem by utilizing a T-group treatment designed to enhance both vocational self-concept crystallization and self-esteem.

Most vocational counseling involves the utilization of the three types of events known as providing career information, assisting in decision making and teaching career developmental processes. The predominance of these events has contributed to the viewpoint by some counselors that vocational counseling is nonpersonal in nature. The treatment designed for this study incorporates the fourth type of event of inviting participants to achieve self-selected goals by activating the use of their own personal attributes.

Recent studies cited in this chapter have explored a significant relationship of vocational maturity to both self-esteem and other psychological variables. The self-esteem variable appears to be an essential element in the integration and differentiation of the self-concept. Thus, the enhancement of vocational self-concept crystallization and self-esteem by a T-group treatment would identify a fourth type of vocational counseling event by allowing the activation of personal attributes in achieving self-selected vocational goals. To clarify the essential concepts of self-esteem, vocational self-concept, vocational self-concept crystallization and T-groups, the chapter included a definition of these terms.

The significance of this research is that providing the opportunity

for meaningful self-expression allows more active utilization of the first three types of events of vocational counseling. The research also discovers if shifts on both variables measured are correlated and provides a basis for future comparative studies and refinement of the treatment. The specific objectives of the research were to assess the effectiveness of a T-group treatment in enhancing vocational self-concept crystallization and self-esteem, the relationship between shifts on each of these variables and the possibility of other variables operating which were not investigated in this study.

2.0 Rationale and Related Research

In order to develop a rationale for the use of T-groups as treatment for vocational self-concept crystallization and self-esteem, four sections have been included in this chapter. The first section describes self-esteem and contains the positions of several psychological theorists as well several experimental studies on self-esteem which are considered relevant to this study. The second section describes the vocational self-concept, points to the early ignoring of personality variables in vocational crystallization and points to Holland's contribution to understanding the structure of the vocational personality. The third section describes the relationship of self-esteem to vocational self-concept crystallization from the position of Hall's theoretical orientation and from experimental findings. Finally, the fourth section describes the application of T-groups to vocational self-concept crystallization and self-esteem.

2.1 Self-Esteem

Several authors name William James as the first person to describe the psychology of the self (Burns, 1979; Wells and Marwell, 1976 and Wylie, 1974). James discriminated two aspects of the same entity; namely, the I and ME. Wells and Marwell describe the two aspects as "the self as the knower and the self as that which is known." The esteem or feeling the "I" has concerning the "ME" is related to the goals one sets for oneself and the nature one chooses to be. When success accrues to such pretensions, the self rises. When failure occurs, the self falls. Such success or failure is often measured in relation to others. C. H. Cooley and G. H. Mead continued the theory within the field of sociology. Cooley maintained that one's conception of self derived from one's perception of others' reactions to oneself. Mead emphasized the evaluative component of one's set of reflexive attitudes concerning oneself. Permeating these theories was the idea of a self-seeking tendency, inherent in the self, attached to the need for survival.

Abraham Maslow describes the tendency as one of "self actualization" (Maslow, 1968; Maslow, 1970 and Maslow, 1971). For the person to reach the stage of actualizing one's internal values, the person must first satisfy certain deficient needs. These needs appear in overlapping increments, so that the relative satisfaction of one need allows the next to appear. After the needs of physiology, safety and belongingness are satisfied, the final hurdle to self-actualization is self-esteem.

Maslow describes this need for a high evaluation of oneself as having two subsidiary sets. The first set entails a sense of personal

mastery, independence and freedom. The second set entails esteem from other persons and involves prestige, dominance and appreciation. He describes meeting the self-esteem need as "recovering the self." The person of low self-esteem reaches first outwardly. If the person receives the medicine of respect, deficiencies are met. This frees one's inner impulses or signals to be received.

> The experientially empty person, lacking these directives from within, these voices of the real self, must turn to outer cues for guidance, for instance eating when the clock tells him to, rather than obeying his appetite (he has none). He guides himself by clocks, rules, calendars, schedules, agenda, and by hints and cues from other people (Maslow, 1971).

This internal impulse to actualize is a threatening revelation. The person engages in "running away from one's own best talents." Maslow terms this the "Jonah Complex," which involves the evasion of "our constitutionally suggested vocations (call, destiny, task in life, mission)." To overcome this insecurity requires the development of an awareness of one's potentiality and the learning that the feelings of awe this invokes are not to be feared. It requires a "working through" to an insight of one's own Jonah complex.

Maslow presents a paradox concerning self-esteem. Once it is acquired, it loses its importance. Where James described self-esteem in terms of the success one has with one's pretensions, Maslow describes it as the ability to "laugh at yourself and at all the human pretensions." Certainly to give up the criterion by which one measures one's worth for new criterion is just as frightening as he describes.

Erich Fromm (1963) describes self-love as "the basic psychological premise" upon which his theory of love is based. He maintains that these feelings and attitudes towards oneself as "object" are conjunctive

with one's attitudes towards others. To love oneself is to love others and vice versa. Without self-love, one lives the illusion of following one's own ideas and feelings when, in reality, these selves are merely duplicates of those around the person. The consensus of others serves as a confirmation and proof of one's own correctness. Such a position brings with it an undefinable unhappiness which leads one to steal from life those satisfactions which aren't achieved. Fromm states:

> He seems to care too much for himself, but actually he only makes an unsuccessful attempt to cover up and compensate for his failure to care for his real self.

Carl Rogers (1961) maintains that "the liking of one's self . . . is one of the important end points of therapy." He isn't speaking of the person who brags about self, but "rather a quiet pleasure in being one's self." This outcome of therapy requires getting beyond the control of one's self, the bitter feelings and the internal pain (low self-esteem) to the true self, the "self that is positive." Like Maslow, Rogers states that it is at this point that what others think the person should do is replaced by an awareness of what is correct for the unique individual to do as a source of motivation. Rogers states that the answer to the questions, "'What is my goal in life?' 'What am I striving for?' 'What is my purpose?,'" comes to light. Wells and Marwell (1976) indicate that Rogers applies self-esteem to the affective dimension of the person. The positive feelings are the result of a self-concept, or self-structure, that is strongly organized.

Thus, the theory that high self-esteem brings with it an increase in self-conception and a change toward the individual self-concept as the predominant force for the individual's thoughts, feelings and behaviors is supported by Maslow, Fromm and Rogers. Galinsky and Fast

(1966) state that the choice of a vocation is a public affirmation of who one is. This affirmation is a demand made by the environment as well as by the individual. Without knowing one's self, it becomes easy to rationalize that one's goal lies outside of one's self and must be "found." Once found out there, all will be fine.

Research in the area of self-esteem supports the view that self-esteem varies in a linear fashion with locus of control. Fish and Karabenick (1971) found a significant correlation ($r=-.28$, $p<.001$) between the Janis and Field Feelings of Inadequacy Scale and the Rotter I-E Scale in undergraduate college men. Maier and Herman (1974) found that as vocational undecidedness increases, self-esteem lowers and dogmatism increases in a population of 141 freshmen. The negative correlation between self-esteem and dogmatism ($r=-.3987$, $p<.001$) indicates a dependence on externally determined dogma. Schalon (1968), using the Tennessee Self Concept Scale to divide his population between high and low self-esteem, had 56 college students perform the WAIS Digit Symbol subtest. There was no difference in performance. One-half of each group was told that they were below the 50th percentile for high school students and that they were obviously not trying. This was described as an experimenter induced stress. Upon the second test, those low in self-esteem performed significantly below ($p<.01$) their low self-esteem, control counterparts. No significant difference ($p<.20$) existed for those high in self-esteem with their control counterparts. In this study, only those low in self-esteem were affected by an external evaluation.

Korman (1968) accumulated contradictory evidence, however. Once he found that high self-esteem students liked successful task

accomplishment and that low self-esteem students had not, he introduced an experimenter statement that others either liked or disliked the task and then planted an accomplice to support the statement. Both high and low self-esteem students showed significant ($p<.01$) agreement as to liking or disliking the task according to the statement made by others (an external force). This contradiction may be explained by the possibility that Korman's high self-esteem subjects may have also had a high need for approval.

Hewitt and Goldman (1974) decided to measure 111 male students on their need for approval, as measured by the Marlowe-Crowne Social Desireability Test. This study found that two-thirds of those measured high in self-esteem demonstrated a high need for approval. There were three groups represented in the study which included those low in self-esteem, those high in both self-esteem and need for approval and those high in self-esteem and low in need for approval. Half of each group were evaluated positively and the other half were evaluated negatively and were then asked to express a liking or disliking for their evaluators. Those high in self-esteem and low in need for approval showed no significant difference between liking or disliking their evaluators. Those low in self-esteem showed a significantly greater attraction for positive evaluators and a significantly lesser attraction for negative evaluators. Those high in self-esteem and in need for approval reacted similarly to the low self-esteem group ($p<.08$).

The disparity in these findings points to two kinds of levels of self-esteem in line with Maslow's dual definition. The self-esteem associated with a high need for approval has been described as defensive

in nature (Schneider and Turkat, 1975), i.e., such pseudo self-esteem is merely a facade for a low self-esteem. To provide supporting evidence, Schneider and Turkat found that those with "defensive self-esteem" presented themselves higher ($p<.02$) on a self-rating after failure on a task than those with "true self-esteem." Their position is that, with need for approval, failure must be guarded against but not so with "true self-esteem." Rogers (1961) points to the need for "unconditional positive regard" in order for true self-acceptance to develop. It may be that this "defensive self-esteem" is the individual's attempt to gain respect from others and that this is the first step to a truer self-esteem. Ziller et. al. (1969) define self-esteem as social in nature.

So the question of how to attain a true high self-esteem is confounded by factors of need for approval. Jones (1973) puts forth a theory that need for approval can help to explain the contradictory findings of the "cognitive balance" approach, such as Korman's, and what he describes as "self-esteem theory." The cognitive balance theory holds that receptivity to positive or negative feedback will be favorable when feedback is received which is consistent with one's self-evaluation and will be unfavorable when inconsistent. Self-esteem theory holds that positive feedback is received favorably for those high in self-esteem and very favorably for those low in self-esteem. Negative feedback is received negatively and very negatively in the same way, regardless of a negative self-evaluation.

The findings of the cognitive balance theorists that low self-esteem counselees respond negatively to positive feedback and positively to negative feedback is theorized by Jones as in line with

the need for approval from those providing the feedback. Such responses reduce the threat associated with those providing the feedback of finding out later on how unworthy the counselees really are. Approval is sought by protecting against the future embarrassment resulting from this future finding by the evaluators. Another position is that such positive feedback is given to everyone by the evaluator whether it applies or not. Since it doesn't apply to them within their self-concept system, it is received unfavorably. Jones points out that when positive evaluations address a specific characteristic or performance of the low self-esteem person, they are received very favorably.

Tharenou (1979) reviewed the literature on self-esteem and delineated other dimensions of self-esteem. It can be global or all-pervasive in one's self-concept, specific to a particular role or specific even to a particular task. Global self-esteem is seen by some as very stable (chronic) and hard to change. By others it is viewed as easy to change (acute) and only requires different evaluations from others. It can be viewed as either an independent variable or a dependent variable. One may present oneself unfavorably because of low self-esteem or one may have low self-esteem because one presents oneself unfavorably. In addition, those high in self-esteem suffer less from anxiety and engage more in self-disclosure.

The major factors from the preceding discussion have important implications for treatment of low self-esteem. Maslow (1968) indicates that fulfilling needs for belongingness and positive esteem from others are preconditions for a positive self-esteem based on "personal mastery," and the studies on need for approval support this indication.

To borrow from Rogers (1961), a treatment entailing unconditional positive regard may fulfill these needs and allow for true self-acceptance to emerge. Jones (1973) indicates that positive feedback is received favorably by those persons low in self-esteem when that feedback is specific to personal characteristics. This indication suggests a treatment entailing self-disclosure in order to uncover those personal characteristics and is supported by Tharenou's (1979) statement that those high in self-esteem do self-disclose. The research indicating that self-esteem varies in a linear fashion with locus of control in support of Maslow (1968), Fromm (1963) and Rogers (1961) suggests a treatment respecting an internal locus of control on the part of the clients. The rationale to be selected for self-esteem enhancement is, therefore, one of attempting to exhibit unconditional positive regard for the group members, to provide conditions conducive to group cohesion through self-disclosure in order to meet deficient needs of belongingness and to maintain such a position during the group facilitation that the locus of control abides with the group members. In order to find the relevance of these aspects of self-esteem enhancement to career counseling, the nature of the vocational self-concept is now put forth.

2.2 Vocational Self-Concept

With the bulk of career information materials and vocational interest inventories available to counselors today, it is easy to conceive of vocational counseling as the process of testing counselees and then directing them to explore the information indicated by the inventory. The additional step of directing the counselee to interview employees in the prospective vocation is an important next step in this process. Such an approach to vocational counseling is often highly effective (Tillar and Hutchinson, 1979 and Droessler, 1977).

There are cases, however, when this approach fails to be effective. Such cases have stimulated Galinsky and Fast (1966) to make the following statement:

> Incidentally, high school, college, and personnel counselors have also often seen vocational choice as divorced from the internal workings of the individual. They have acted as if giving an interest test and interpreting it would suffice and ignored the ambivalences and other blocks to making a decision and commitment.

For the counselor to fail to explore such "internal workings of the individual" is, for some clients, an error.

Buck (1970) tested 120 Stanford males with less crystallized vocational interests to determine if career exploratory behavior in four years of college led to more crystallization. The extensiveness and effectiveness of the exploratory behavior was measured by a questionnaire establishing the frequency of educational and extracurricular activities, the work experiences and the discussions with peers, parents, faculty and counselors of the students. There was no significant difference between those who explored and those who did

not explore in terms of vocational interest crystallization. Neither personal flexibility nor verbal intelligence of the students had any effect on these results. Buck's findings demonstrate the importance of counselor probes into the psychological dynamics of the undecided vocational self-concept.

One widely acknowledged theory of the structure of the vocational aspects of personality is that of John Holland (Holland, 1966; Holland, 1973; Weinrach, 1979 and Weinrach, 1980). This theory posits six vocational personality types. Each type embodies characteristics which can be found in both individuals and in environments and employees of certain career fields. As indicated in section 1.2, these characteristics found within individuals have been chosen as a descriptive definition of vocational self-concept.

The six personality types will be briefly described. The Realistic model type is physically strong, aggressive, has good motor coordination and skill and prefers occupations similar to construction trades, machinists and engineers. The Intellectual model type is task-oriented, has high levels of abstract ability, prefers to think through rather than act out problems and prefers occupations similar to those found in research and science. The Social model type is humanistic, religious, has high verbal and interpersonal skills, solves problems through feelings and prefers occupations similar to teachers, psychologists and recreation specialists. The Conventional model type is highly structured, conforming, identifies with power and wealth, has high computational and verbal skills and prefers occupations similar to bank tellers, bookkeepers and traffic managers. The Enterprising model type is orally aggressive, avoids well-defined work situations, has high

leadership skills and prefers occupations similar to salesmen, campaign managers and buyers. The Artistic model type is highly unstructured, has a strong need for individualistic expression, avoids problems requiring gross physical skills and prefers occupations similar to musicians, cartoonists and commercial artists.

The crucial element of the theory holds that individuals seek out career environments similar to their personality characteristics and that career environments seek out individuals similar to their characteristics. Since the individual assimilates these personal characteristics from significant role models and other aspects of their environment, all six types are represented within each individual. The principle of differentiation refers to the dominance of any of the six types within one personality.

The problem of counseling the person with an undifferentiated vocational personality frequently confronts the counselor. Those undifferentiated individuals with no firm self-concept may be consumed with how to answer the question of what one can do when one doesn't even know who one is. The answer that one can't do anything is expressed in the form of too many interests or none at all (Galinsky and Fast, 1966). Another possibility is that the individual may embrace the false attitude that one has "equal ability for all occupations" (Williamson, 1937).

2.3 Relationship of Self-Esteem to Vocational Self-Concept Crystallization

Galinsky and Fast may provide a clue to a large component of the problem when they describe one general characteristic of undifferentiated counselees. This characteristic is that such a counselee feels incompetent at everything, i.e., "...a failure of conviction in the ability to do work, or to produce anything worthwhile." The true, unexpressed goal of such individuals is ignored by them because if the individual cared about the goal, it would only lead to the pain and disillusionment of failure.

Hall (1976) stipulates that the individual low in self-esteem avoids failure in order to defend "his sense of competence," and quotes Kurt Lewin (1936) that the person will "quit while he is ahead." In describing the role of self-esteem in achieving congruence between one's vocational subidentity and one's selected career, Hall states:

> The more the person searches for information about alternatives, the more effective his choice will be. However, examining oneself critically and objectively requires being receptive to 'self data.' Since this kind of examination runs the risk of negative discoveries about oneself, the higher one's self-esteem, the lower the likelihood that the person will be threatened by these new insights.

So the level of self-esteem affects the level of threat towards self-awareness. With this self-awareness, Holland's hypothesis that the individual will seek out a congruent career environment is operative. The individual will present his vocational characteristics in a manner which attracts the appropriate career environment as well. Without the high self-esteem, self-awareness dynamic described by Hall, Holland's hypothesis is inoperative.

Korman (1966) engaged in experimental research to establish that people selected career roles in an effort to enhance their sense of cognitive balance or consistency. Choosing an instrument which measured certain personal characteristics which are ascribed to specific occupations he measured those characteristics in sales, accounting, and production management occupations. He found that individuals high in self-esteem had indeed matched their own highly important personal characteristics to those characteristics of the occupation and that those with low self-esteem had not. Pursuing this direction, he then tested to see if those high in self-esteem saw themselves as possessing high abilities in areas where the job requires high abilities and that those low in self-esteem did not see themselves in this manner (Korman, 1967). On lower required abilities, both those with high and with low self-esteem would be equal in self-perception. His tests were supported, and he concluded that individuals seek out occupations consistent with their evaluative cognitions of themselves.

In his next experiment, Korman further refined this psychological dynamic by isolating the way in which those high in self-esteem differ from those low in self-esteem (Korman, 1968). He found that, contrary to the findings of those high in self-esteem, those low in self-esteem did not receive satisfaction from successful task achievement nor dissatisfaction from task failure. This supports the notion that one low in self-esteem will "quit while he is ahead" in order to defend "his sense of competence," regardless of what the level of that sense of competence may be. Another experiment found that success feedback improved performance on a following, unrelated task more significantly for those high in self-esteem. Failure feedback decreased the

performance on the following, unrelated task more so for those low in self-esteem (Shrauger and Rosenberg, 1970). So, although those low in self-esteem screen out satisfaction and dissatisfaction, future performance is affected in a lower manner for them. The effect of failure has more influence on behavior than the effect of success.

The description that Korman's findings is a result of those low in self-esteem seeking failure in order to maintain "self-consistency" or "cognitive balance" is in question, however. Super (1951) maintains that the choice of a vocation is the result of the development of a vocational self-concept. This theory would be more in line with Hall's in that low self-esteem is linked to a lower self-awareness. Korman's theory would require self-awareness in order to maintain a cognitive balance that the developed vocational self-concept is not worthwhile.

In order to acquire data to examine this difference between Korman and Super, Thomas Barrett developed the Vocational Rating Scale (VRS) and established its reliability and validity with university students (Barrett and Tinsley, 1977b). The VRS is designed to measure how well one's "vocationally relevant self-concepts" are formulated and the degree to which they are internally differentiated. Their first finding was that those high in self-esteem have significantly higher levels of vocational self-concept crystallization. Pursuing the effect this had on vocational indecision, they then measured for this variable (Barrett and Tinsley, 1977a). Their findings supported those of Korman concerning the positive relationship of self-esteem to vocational decision, but the VRS measured a lower developed vocational self-concept for the undecided. Thus Super's hypothesis is supported, and the cognitive balance or self-consistency theory is weakened.

Other studies have also found a relationship between vocational decision or crystallization and self-esteem (Maier and Herman, 1974 and Resnick, Fauble and Osipow, 1970). Leonard, Walsh and Osipow (1973) went a step further. They found that the second vocational choice of college students was consistent with the primary or secondary personality orientation on Holland's Vocational Preference Inventory for high self-esteem students. The low self-esteem students were not distinguished in this way. They concluded that those high in self-esteem behave according to their self-concepts and that such students should receive counseling which explores their personality styles. Low self-esteem students look to external sources and should receive counseling examining what external factors need to be found in the career environments. Their presumption is for counselors not to make the value judgement of changing student levels of self-esteem.

Two studies examined the external sources which students low in self-esteem considered important and sought to determine the levels of satisfaction experienced with their vocational choices (Greenhaus, 1971 and Greenhaus and Simon, 1976). First, Greenhaus (1971) found a correlation with self-perception and perception of occupation for only the high self-esteem students. He then found that low self-esteem students perceive their satisfaction for their choice to be equal to those who had made the same choice. The perceived prestige of the chosen occupation was correlated with occupational satisfaction for this group. This correlation did not hold for the high self-esteem group.

The other study examined the choice of an ideal occupation for both groups. When both levels of self-esteem were linked with career salience (the importance of work and career in an individual's life),

those high in self-esteem were more likely to choose an ideal occupation. Furthermore, there was a significant finding ($p<.01$) that those who chose an ideal occupation anticipated more satisfaction from the choice. A plausible reason for this is evident in the finding that the ideal occupation relates more to intrinsic factors, such as creativity and feelings of achievement, than to extrinsic factors, such as pleasant surroundings, security, prestige and money.

The statement by Leonard, Walsh and Osipow (1973) not to make the value judgment to change student levels of self-esteem can be questioned. The position can be taken that self-esteem is at the very heart of counseling (Branden, 1979). To search for extrinsic factors, such as those found by Greenhaus and Simon, may lead to choices where those low in self-esteem feel secure or receive prestige as a means to counteract the source of the problem which is the insecurity of not defining one's self. This approach limits the level of satisfaction to a lower level, the level of filling one's deficiency. If the deficiency is later filled, the college education may have been wasted. It may have addressed factors totally unrelated to who the person is.

Returning to Hall (1976), the problem is defined as overcoming the threat to oneself experienced when one must "critically and objectively" look into oneself. To turn outward at this point places the student solely at the mercy of the career environment. It appears to this writer that such a choice on the part of the counselor is just as much a value judgment as to the nature of the problem as addressing the level of self-esteem.

This section has provided research which supports the theory that high self-esteem aids in the process of crystallizing one's vocational

self-concept (Hall, 1976). The data also support the premise that crystallizing one's vocational self-concept may enhance self-esteem or that the two are closely intertwined with one another. The question of what impact T-groups exert on these two variables remain.

2.4 Application of T-Groups to Vocational Self-Concept Crystallization and Self-Esteem

The use of T-group treatment for the purpose of enhancing both vocational self-concept crystallization and self-esteem has not been widely researched. Only four such studies were located, and these measured conflicting effects.

The most extensive study was published very recently by Perovich and Mierzwa (1980). They measured for vocational maturity using Super's Career Development Inventory (CDI) and for self-esteem using Fitt's Tennessee Self Concept Scale (TSCS) on two treatment groups and a control group. The first treatment group entailed the use of resource people to speak to eight career relevant topics, such as job interviews and occupational resources, with a discussion leader to foster interaction. The second treatment entailed the use of a counselor to initiate the group according to Schutz's FIRO-B format followed by a more "unstructured" T-group format.

The design of the study called for combining the data from two groups for each treatment. A score was computed which measured the difference in the means of each treatment from a pretest measure to a posttest measure on vocational maturity, three subscales of vocational maturity and self-esteem. A fully crossed 3 X 2 analysis of variance was computed. There was no significant difference found between the two treatments. The first treatment, which utilized resource people, was significantly different from the control on all measures. The T-group treatment, which was designed to enhance self-esteem, showed no significant difference in self-esteem from the control group. Vocational maturity was significantly different from the control group,

although one of the subscales failed to reach significance.

These findings appear to favor a group method emphasizing cognitive input over the more experiential T-group. The CDI, however, asks such questions as whether the respondent talked to an adult, a school counselor or a teacher or whether the respondent examined career information books or audio visual aids. The format of the cognitive group addressed such measures, and the T-group did not. One of the subscales of the CDI measures decision making, which assesses the student's "knowledge of how to integrate personal and occupational information into educational and vocational decisions (Forrest and Thompson, 1974)." This measure addresses the process of utilizing information in a personalized context of actually deciding on a career. This was the one measure where the T-group treatment displayed a greater change than the more cognitively oriented treatment.

The results raise several questions. Since the research design measured differences in mean scores and compared these differences, it is known that whatever movement occurred in the measures was significantly different. What is not known is whether that movement from pretest to posttest on these measures is significant. Although the change in means on vocational maturity was significantly different between treatment and control, it is not known that the change in the level of vocational maturity was significant in treatment. Is there a significant increase of vocational maturity in such groups?

Not knowing if the level of decision making increased significantly and knowing that the T-group failed in the intention of enhancing self-esteem, the T-group may have been an ineffective one. The authors maintained that such groups have enhanced self-esteem in the past.

Could the T-group have been a more effective one, and, if so, what impact would this have had on the measures?

A third question involves the separation of functions into two groups. Burns (1979) cites evidence that cognitive input into the experiential element of the T-group enhances its effectiveness on self-esteem. Hall (1976) theorizes a link between self-esteem and vocational subidentity. Since the cognitive group more clearly enhanced planning and exploration and the T-group more clearly enhanced decision making, isn't it logical that the merging of the two functions into one treatment is called for? It is possible that once one has planned and explored adequately, any process which has an influence on decision making will give more meaning to the plans and exploration.

The second study (Russell, 1975) employed a structured small-group experience as a treatment. The focus was on student strengths, positive feedback and values clarification. Fifty-four community college students participated with half receiving treatment in a Human Potential Seminar and the other half, acting as a control, enrolled in an Introductory Psychology class. The Coopersmith Self-Esteem Inventory and a devised scale for measuring vocational commitment was employed. There were 15 three-hour sessions over five weeks. Analysis of covariance revealed significant increases on both measures. The group receiving values clarification displayed a significantly more improved vocational commitment than the other treatments.

In the third study measuring both vocational self-concept crystallization and self-esteem, Gunter (1975) utilized the Kuder and the TSCS measures on three treatment groups and a control group. The first treatment was a career class of didactic presentation of career

information. The second treatment was a career group in which the process of development was facilitated with an emphasis on the students' ability to establish their own goals. The third treatment was a multimedia career orientation group which involved the independent study of the students with a counselor as consultant. No significant change was found on the Kuder and the TSCS total P score. The career group did measure a significant difference on the Personal Self subscale of the TSCS and had the highest scores of the four groups. Once again the didactic input was separated from the group process orientation, and self-esteem did not significantly increase.

The fourth study was conducted by Hamm (1978) and consisted of only three hours of treatment on three groups. The groups entailed one undergoing individual counseling, one engaged in self-directed study and one engaged in group counseling. The Crites Career Maturity Inventory and the TSCS were employed. No significant differences were found on either measure between the groups nor with the control group.

The effects of T-groups on levels of self-esteem have been much more widely researched. Burns (1979) cites ten studies where T-groups have facilitated significant increases in self-esteem. On measures of self-acceptance, Gibb (1974) located twenty-one studies measuring significantly positive changes and twenty studies measuring no change. Although these findings establish the existence of different levels of success in enhancing self-esteem, Gibb states that T-groups significantly and consistently enhance the self-concept better than didactic groups. The variance in success may be due to the environmental conditions surrounding the treatment, facilitator competence, insensitive measures, length of sessions, different types of

structure and particular makeup of participants.

Two studies were located which failed to enhance self-esteem. In one (Cooper, 1971), the emphasis of the group centered on providing negative feedback to its members. In the other (Glaser, 1977), the pretest measures on self-regard were skewed in the positive direction. This left little room for improvement in the posttest measures. The measures did, howevever, support a positive trend ($p<.11$).

Three studies were located in which groups were successful in measuring significant increases in self-esteem. Hewitt and Kraft (1973) compared a weekend marathon group to a placebo control group. Although observers reported no increase in self-liking on the part of the participants, the participants gave self-reports on a seven-point Likert scale ranging from like to dislike of self which showed a significant increase. Sheehan (1977) reported significant increases measured by both the Rosenberg Self-Esteem Scale and the TSCS for growth group participants over a control group with adults. Peteroy (1979) found significant increases on the Personal Orientation Inventory (POI) and on the Rosenberg Self-Esteem Scale. The POI measures for self-actualization of which self-regard is a component. Using graduate students in counseling as facilitators, Peteroy also found that facilitators with low levels of expectation for their groups exhibited significantly higher levels of self-esteem in their groups than those facilitators with high expectations. All levels of participant expectation also showed significant increases.

These studies show that T-group treatment lacking didactic or structured input failed to reach significance in enhancing self esteem. Such nonvocationally oriented T-groups often do achieve significant

differences in this regard. Yet Perovich and Mierzwa (1980) measured a nonsignificant higher level of vocational decision making with the T-group over the didactic group. Their finding conflicts with those reported in the section of this study linking vocational decision to self-esteem. The question of whether a treatment significantly increases both vocational self-concept crystallization and self-esteem remains, even though significant movement has been established. Russell's (1975) measure of vocational commitment was not an extensive measure.

When these findings are compared with Maslow's (1968) dual definition of self-esteem and the Jonah complex, a possible explanation emerges. When the structure of the treatment experience is largely determined by the experimenter, a source external to the participants, self-esteem movement is obtained as indicated in those groups exhibiting over 20 hours of treatment (Perovich and Mierzwa, 1980 and Russell, 1975). When the structure was to be determined by the participants, as in the T-group of Perovich and Mierzwa (1980), self-esteem movement was not significantly obtained. The T-group presents a Jonah complex situation, whereas the didactic groups do not. It is possible, therefore, that the shift from an external to an internal source of positive self-esteem creates a temporary depression on self-esteem measures. This depression would be due to the threat of the Jonah complex. This study will incorporate treatment entailing didactic material, experiences structured by the facilitators and experiences structured by the group members in a T-group format addressing the vocational self-concept, the processes of groups and self-esteem enhancement.

2.5 Summary

The rationale of this study was based on the theories of self-esteem, the vocational self-concept, the interrelation of these two variables and the application of T-groups to this interrelationship. Self-esteem theories presented by Maslow, Fromm and Rogers supported the view that high self-esteem is related to differentiation and integration within the self-concept. High self-esteem was also related to higher levels of internal locus of control.

Holland's six personality types were put forth as the structural components of the vocational self-concept. Holland's principle of differentiation of these six types within the personality structure was presented as providing one conception accounting for vocational indecision in counselees.

The relationship of self-esteem to vocational self-concept crystallization is such that a high self-esteem is needed in order to critically examine oneself. Hall maintains that this relationship is crucial to the differentiation and integration of the vocational self-concept structure. This relationship is supported by several studies presented. The position was espoused that one goal of vocational counseling is the enhancement of self-esteem.

The study of the utilization of T-group treatments to address both vocational self-concept crystallization and self-esteem in university students is limited. Four such studies were presented which exhibited considerable differences in approaches, procedures and results. Studies employing T-group treatments on only the self-esteem variable, likewise, demonstrate differences in results. One observation was that these

treatments did not include both didactic presentations addressing the components of the vocational self-concept and the experiential aspects of the T-groups addressing an internally based self-esteem enhancement.

3.0 Research Design and Procedures

The design of this study was constructed to assess the effectiveness of a T-group treatment in enhancing vocational self-concept crystallization and self-esteem for randomly selected Oregon State University freshmen. This chapter will include the sample and selection of subjects, the selection and training of facilitators and the treatment employed in the study. It will also include a description of data-collecting instruments used, the procedure followed, the statistical hypotheses formulated and the methods of analysis employed.

3.1 Sample and Selection of Subjects

The subjects consisted of freshmen at Oregon State University. A letter was sent to two groups of freshmen inviting them to participate in the study and briefly describing the nature of the experience. The two groups included:

1. A random selection of 400 freshmen students under the age of 30 from the entire freshman class at Oregon State University.
2. A selection of all freshmen included in the University Exploratory Studies Program (UESP), who had not previously been enrolled in a class offered by the University Counseling Center addressing the selection of a career.

The UESP is a university program consisting of students who have not declared a major for themselves. The total mailing for this group numbered 105. The inclusion of UESP students in the mailing was directed towards increasing the number of vocationally undecided freshmen in the sample.

Freshmen were instructed to volunteer for participation in the study by enrolling in a course created solely for this study. The course was named Self/Career Exploration. It offered two quarter credit hours from which enrollees received a letter grade. It was designated as a freshmen-level, special-studies course.

A total of 72 students enrolled in the course. From this total, 60 were present at the pretest on the first day of class and were considered the whole sample for the selection of subjects. This number included six UESP students of which five were randomly selected into the study. The selection consisted of 48 students who exhibited the lowest

scores on the self-esteem measure with the exception of three students. These three students were excluded on the basis of exhibiting extremely low self-esteem scores and scoring at a level on one of the subscales which is used to discriminate psychiatric patients from nonpatients. Due to the nature of the T-group treatment, it was decided by the researcher that there was a reasonable chance that these students might be adversely affected from such an experience.

The 48 selected subjects were randomly placed into three treatment groups and one control group by the use of a table of random numbers (Downie and Heath, 1974). The control group received no treatment. Each of the four groups consisted of 12 students. The sampling matrix utilized in this research is illustrated below:

Table 1. Sample Matrix

Groups	Number
I (treatment)	12
II (treatment)	12
III (treatment)	12
IV (control)	12
Total	48

The sex characteristics and age characteristics of the groups resulting from the random selection are illustrated in the two tables below:

Table 2. Sample: Sex Characteristics

Groups	Male	Female	Total
I (treatment)	4	8	12
II (treatment)	4	8	12
III (treatment)	3	9	12
IV (control)	2	10	12
Total	13	35	48

Table 3. Sample: Age Characteristics

	Groups				
Age	I	II	III	IV	Total
18	6	3	4	6	19
19	5	8	7	6	26
20	1	1			2
26			1		1
Total	12	12	12	12	48

In order to allow for a power level of .80 with an effect size of greater than .50, a sample size of 12 subjects per cell was selected. This number is also the upper limit recommended for groups of this nature (Rogers, 1970). According to Cohen (1969), this sample size detects gross differences and provides a chance of 20% that type-one errors will occur.

3.2 Selection and Training of Facilitators

The facilitators were selected from doctoral and masters level students enrolled in the Counselor Education program at Oregon State University. A 15-minute presentation was delivered by the researcher to all masters and doctoral students during the Fall term outlining the nature of the research project and the time commitment to be required. An initial pool of three doctoral students and 19 masters students volunteered. Near the end of the Winter term, these students were contacted for final commitment. One doctoral student and five masters students remained. This was the minimum number required for the study. So all volunteers were incorporated into the project.

All facilitators had prior experience as participants in a group. This experience varied as to the number and kind of groups of participation. One masters student had several prior experiences facilitating groups of a similar design. The doctoral student had experience facilitating groups of a more cognitive nature. All masters-level facilitators were in the third quarter of counselor training with varied individual counseling experience.

All facilitators attended two three-hour training sessions presented by the researcher during the last week of Winter term. This provided them with a period of three weeks for preparatory study of materials provided. During the training session, each facilitator chose a member of the opposite sex to act as their cofacilitator. Each facilitator also chose from a selection of six topics presented to them for a one hour presentation per facilitator to the subjects during treatment. In exchange for their participation in the project, each

facilitator was allowed enrollment in a three quarter credit group practicum class.

The two training sessions were initiated with an introduction to the project. The rationale and terminology were presented in a lecture format. This was followed with a sentence-completion exercise designed to stimulate discussion on their motivations for facilitating groups.

The introduction was followed with presentation and discussion of the role of observing group data, group processes and group issues in facilitation. This material was directed at sensitizing the facilitators to the difference between objective observation and personal interpretation of what happens in such T-groups.

The sessions concluded with a lengthy consideration of the nature of their interventions in the project sessions. Four goals were enumerated for interventions. A specific process or approach for intervention was described which included four steps based on the material presented up to that point. The Hill Interaction Matrix (Bates and Johnson, 1973) and the intervention cube (Cohen and Smith, 1976a) were presented to describe the kinds of interventions to be directed at catalyzing a specific direction of group movement. At this point, four typical examples of group behavior were read for role playing of interventions to be made. The sessions concluded with the distribution of reading materials for homework.

Training was continued after treatment commenced. This consisted of supervisory sessions conducted by the researcher ranging from one and one-half hours to two and one-half hours immediately following each treatment session. Facilitators verbally outlined their session for group discussion. Supervisory intervention by the researcher was also

based on listening to tape recordings of each session. Facilitator interventions were evaluated on the basis of the training materials. A more detailed explanation of the training and supervision of facilitators is presented in Appendix A.

In order to approximate uniformity in supervision, the researcher constructed the Facilitator Rating Scale provided in Apendix B. This scale is based totally on the subject matter of the training model. Supervision was directed at refining the performance of the facilitators according to the criteria provided on this scale. The ranking of facilitator interventions was not provided to the facilitators.

3.3 Treatment of Subjects

The treatment consisted of seven sessions of three hours' duration extended over seven weeks and of five homework assignments. Each session commenced with a one hour planned theory input in a classroom situation with all 36 treatment subjects together. This was followed by the subjects' going to one of three smaller rooms for two hours in groups of 12 where two cofacilitators facilitated the group process in accordance with their training. The planned theory inputs, the two-hour sessions of group facilitation and the homework assignments will now be presented.

The seven planned theory inputs were as follows:

1. Misconceptions of Vocational Choice and Group Groundrules
2. Self-Disclosure and Risk-Taking
3. Holland's Theory and Exercise
4. Career Lifestyle Guided Fantasy
5. Maslow's Description of Self-Actualization
6. Movie - Where All Things Belong
7. Review and Closure

A description for each of the inputs is presented in Appendix C. The inputs were primarily in the form of lectures with questions directed at stimulating class discussion. Group exercises were occasionally utilized to provide experiential focus on the material presented. Several handouts were presented during the inputs. The guided fantasy and movie were followed by a 20-minute period provided for quiet personal reflection.

The nature of the two-hour part of the sessions is presented in the

appendices which describe facilitator training, planned theory inputs and homework assignments. A description of the intervention cube (Cohen and Smith, 1976a) follows presenting the T-group treatment in greater detail.

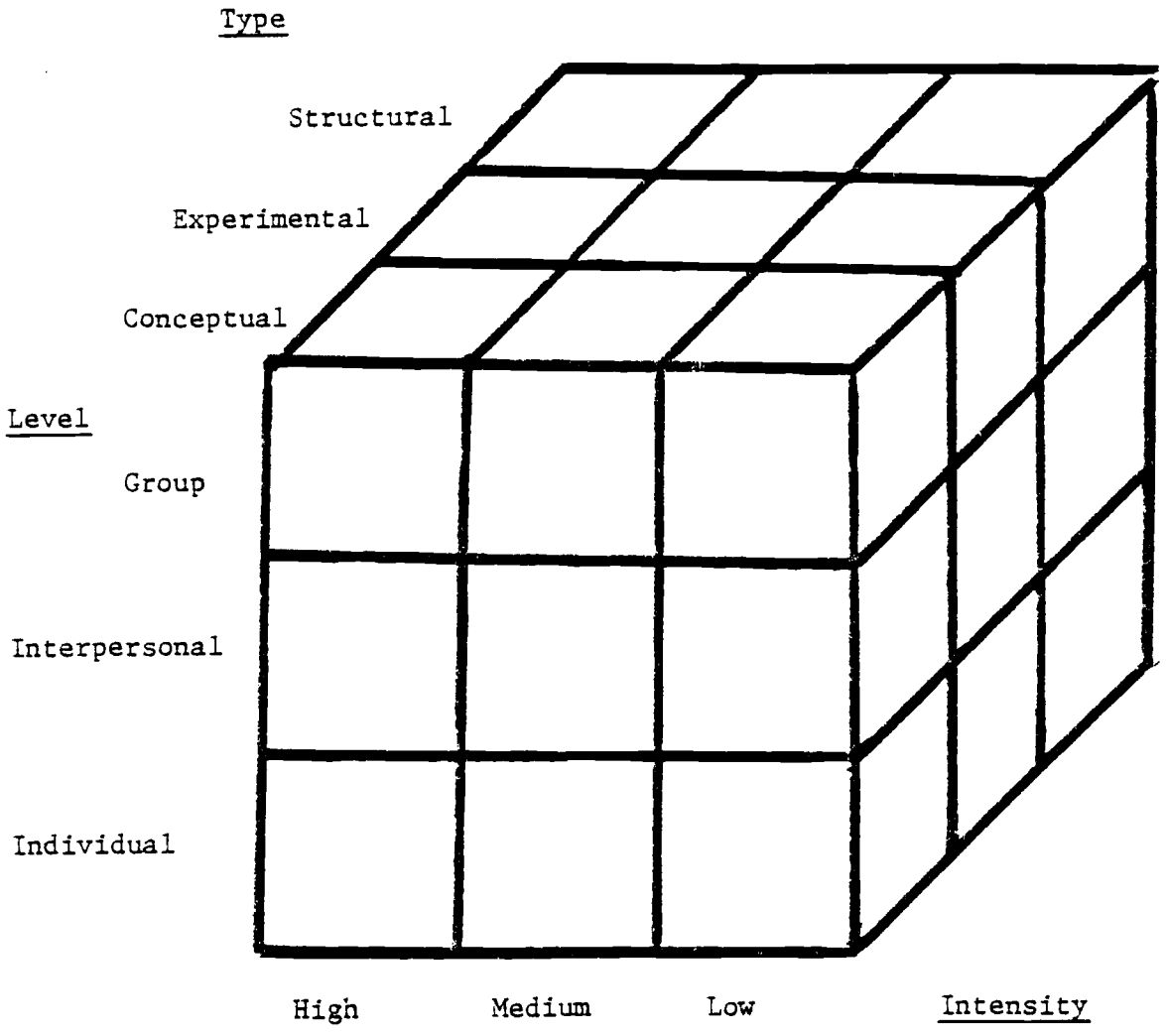
The three dimensions of the intervention cube are the type, the intensity and the level of interventions. Each dimension has three components. The three types of interventions are conceptual, experiential and structural. The conceptual intervention is one where the facilitator "attempts to abstract or conceptualize some significant idea or issue." This can be done spontaneously during group interaction, or a theory input can be planned prior to the session for a specific time point in the session. The experiential type of intervention invites disclosure in order to stimulate movement. The structural type of intervention indicates a range of activities to take place in the group. This may or may not be what is referred to as a structured experience.

The three intensity components are low, medium and high intensities. The intensity refers to the degree to which the group's interaction style "is exposed, interpreted and directly communicated" in order to understand an underlying dynamic of behaviors. Intensity is the "intended impact" of increasing awareness or the amount of diffusion intended by the confrontation.

The level of an intervention refers to its target. The facilitator can intend an intervention for the whole group, for an interpersonal relationship within the group or for only one member. These targets refer to the three levels. The level is best identified in terms of who the facilitator expects to respond to the intervention.

Cohen and Smith utilize the nine components of the cube to define groups as nondirective, psychoanalytical, encounter or T-group in nature. The T-group utilizes all the components of the cube and is the basic definition of the T-group treatment utilized in this study. The diagram of the cube appears in Figure 1.

Figure 1. Cohen's Intervention Cube



The strategy for facilitation was to exhibit a predominance of interventions of low intensity at the group level with an experiential type for the first three sessions. The remaining four sessions were to exhibit the other components of the cube as the need for various confrontations emerged, as judged by the facilitators. Planned theory inputs constituted the bulk of conceptual interventions during the first hour of each meeting.

The homework assignments, presented in Appendix D, were as follows:

1. Group Description and Guidelines
2. Occupational Card Sort
3. Self-Directed Search
4. How to Study an Occupation
5. Goal Setting Exercises for Directing One's Life

A homework assignment was assigned at the end of the planned theory inputs for each of the first five sessions. The first four assignments were due the following week. The last assignment was due the last session. The assignments were chosen to supplement the planned theory inputs and addresssed the dependent variables of the study. The instruments for measuring the impact of the treatment on the subjects on these variables are now to be presented.

3.4 Data-Collecting Instruments

The first data-collecting instrument was the Vocational Rating Scale (VRS), which measures global vocational self-concept crystallization. Barrett (1976) developed the scale in conjunction with his doctoral dissertation. It contains 40 self-descriptive statements to be rated from completely false to completely true on a five-point Likert scale. The direction of the statements is balanced to lessen acquiescence.

Reliability for the scale included Cronback's Alpha Coefficient for internal consistency which measured .94. Twenty undergraduate students from an Introductory Psychology class were tested and retested after a two-week interval to determine its stability. The product moment correlation yielded an r value of .76 which establishes the VRS as moderately stable over short periods of time.

Introductory Psychology undergraduate students consisting of 31 males and 16 females, 20 graduate psychology students and 29 students undergoing career counseling completed the VRS to determine validity. Convergent validity was obtained by comparing the VRS with the Distribution Scale of the TSCS, which measures the certainty of self-descriptive responses on all subscales of self-concept content. The hypothesis tested was that respondents in the upper and lower thirds on the Distribution Scale would significantly differ on mean VRS scores. A t-test was calculated which showed a significant difference ($p<.01$) between the two groups. A Pearson r showed a correlation of .38 between the two scales which proved significantly different from zero on a two-tailed t-test ($p<.01$).

Discriminant validity was established for age, career commitment and self-esteem on all three sample populations. The scores were combined, and a median split was performed for each sex on ages. The older and younger students were compared by using a one-tailed t-test. Mean VRS scores were higher for older subjects, but only the female difference was significant ($p<.01$). The hypothesis that the VRS would discriminate the three groups, assumed to differ in career commitment, was tested by using ANOVA with the VRS as a dependent variable. The group main effect was measured as significant ($p<.01$) with no significance for sex nor sex by group interaction. The Newman-Keuls a priori comparisons of all pairs of means displayed that the graduate students showed significantly higher VRS means than the Introductory Psychology undergraduate students ($p<.05$), who showed significantly higher VRS means than the career counseling students ($p<.05$). A different sample of 50 male and 52 female Introductory Psychology undergraduate students completed the VRS, the TSCS and the Marlowe-Crowne Social Desireability test. A median split on the TSCS Total Positive Scale was performed. A 2 x 2 ANOVA revealed that both male and female students high in self-esteem showed significantly higher mean VRS scores ($p<.01$). When the confounding effects of social desirability was removed, significant difference between the two groups was still maintained ($p<.01$).

Thus, the VRS proved to be moderately reliable on a test-retest basis, internally consistent and valid in discriminating career commitment in university undergraduates. In addition, it has been utilized in comparing vocational self-concept crystallization to global self-esteem (Barrett, 1976). A copy of the VRS is contained in Appendix

E.

The second data-collecting instrument was the Tennessee Self-Concept Scale (TSCS) developed in 1955 "to meet the difficult criterion problem in mental health research" (Fitts, 1965). It consists of 100 self-descriptive statements whereby the student responds on a five-point Likert scale ranging from completely false to completely true. The items are balanced to control for acquiescence. Although there are several subscales for the TSCS, only the Total P score was utilized in this study. Fitts describes this scale as the most important score on the instrument, because it measures the global level of self-esteem.

The TSCS included a broad and diversified sample of 626 people from various sections of the country and ranging in age from 12 to 68 for the norms. Students from college classes and other sources were represented, and Fitts lists studies whereby specific groups approximate the results of the overall norms. Test-retest reliability based on 60 college students over a period of two weeks for the Total P score measures .92. Fitts states that remarkable similarity in profile patterns exists over long periods of time.

Content validity was established by requiring unanimous agreement of seven clinical psychologists for the employment of the 90 items. The remaining 10 items include a Self Criticism measure taken from the Minnesota Multiphasic Personality Inventory to check for a defensive response bias. Discriminant validity was established by comparing a group of 369 psychiatric patients with the nonpatient norm group. The difference was highly significant at the .001 level. People identified as high in personality integration showed significantly higher scores

from the norm group. Fitts cites studies whereby the TSCS discriminates between delinquents and nondelinquents, between soldiers who withstood the stress of paratrooper training and those who did not and between alcoholics and nonalcoholics. Predicted correlations with the MMPI, the Edwards Personal Preference Schedule and other personality measures were found. Studies exhibiting predicted change in self-concept due to particular experiences are also cited.

The selection of the TSCS in this study is based on the extensive norms on which it is based and on its tested reliability and validity. In addition, it has been widely used in studies addressing the interrelation of self-esteem and vocational self-concept crystallization or career decision (Barrett, 1977a and b; Droessler, 1977; Maier and Herman, 1974 and Perovich and Mierzwa, 1980). The procedure for the use of these instruments before and after the treatment will now be presented.

3.5 Procedure

The procedure for this study was:

1.) Pretest all volunteers utilizing the Barrett Vocational Rating Scale.

2.) Pretest all volunteers utilizing the TSCS.

3.) Select a criterion range on the TSCS to establish a group of 48 subjects (36 for treatment and 12 for control) who are low to moderate in self-esteem.

4.) Perform the T-group treatment for a period of seven (7) weeks.

5.) Posttest both the experimental groups and the control group utilizing the Barrett Vocational Rating Scale.

6.) Posttest both the experimental groups and the control group utilizing the TSCS.

The design matrix was identical for both measures. The pretest-posttest control group design was utilized (Campbell and Stanley, 1963). The design matrix is presented in Table 4.

Table 4. Design Matrix

Group I (treatment)	R	O	X_1	O
Group II (treatment)	R	O	X_2	O
Group III (treatment)	R	O	X_3	O
Group IV (control)	R	O		O

where R: Randomization
O: Data collection measures
X: Seven week T-group treatment

3.6 Statistical Hypotheses

The study tested the following null hypotheses:

Ho_1: There is no significant difference among the posttest mean scores of the four groups on levels of vocational self-concept crystallization.

Ho_2: There is no significant difference among the posttest mean scores of the four groups on levels of self-esteem.

Ho_3: Shifts in vocational self-concept crystallization will be unrelated to shifts in self-esteem following treatment for the four groups.

3.7 Methods of Analysis

Two statistical tools were utilized for this study. The first tool was the one-way analysis of covariance (ANCOVA). Like the analysis of variance, ANCOVA tests for signficant differences among means and results in an F statistic. In addition, it uses regression to adjust "for initial differences in the data" (Courtney and Sedgwick, 1972). Thus, adjustment is made for variables which are beyond the control of the random sampling. The basic assumptions for ANCOVA include randomization, linearity between initial and final measures, at least two groups and interval scale data. Scheffe's method for multiple comparisons of means was used to determine where the difference(s) exist among group means. This method computes critical differences which must be exceeded by the differences between the adjusted means in order to reach a .05 level of confidence that differences exist between the means.

The mathematical model used in ANCOVA is as follows:

$$Y_{ij} = \mu + \gamma_i + B(X_{ij} - \bar{x}) + \varepsilon_{ij}$$

where: μ = general mean,

γ_i = effects of treatment,

$B(X_{ij} - \bar{x})$ = regression coefficient between Y and X, i.e., the adjustment of the post measures

ε_{ij} = residual (error) effect, NID (o,γ^2)

ANCOVA was used to determine whether there was a significant difference among the vocational self-concept crystallization levels of the four groups and among the self-esteem levels of the four groups.

The pretest was designated as the covariate and used as the reference for comparison to the posttest. The computed F had to be equal to or greater than the tabular F at the 0.05 level for the first two hypotheses to be rejected. The decision table for the study is prsented in Table 5.

Table 5. Analysis of Covariance

Adjusted

Sources of Variation	SS	df	MS	F
Between groups	A	3	A/3	MS_{bet}/MS_{wth}
Within groups	B	43	B/43	
Total		46		

α = 0.05 level of significance

The null hypothesis in this case is: H_0: $M_1 = M_2 = M_3 = M_4$.

The second statistical tool was the Pearson r between the pretest and posttest difference scores on both measures. Linearity was determined through the use of a scattergram. The basic assumptions underlying this correlation computation are linearity between pretest and posttest measures, equidistant interval scale data and approximation of a normal distribution of the data.

A t-test was used to determine if the correlation was significantly different from zero (Courtney and Sedgwick, 1973). Correlation coefficients and tests for significance were computed for each treatment group and for all four groups as a whole. The level of significance had to reach .05 for the third hypothesis to be rejected.

3.8 Summary

Chapter 3.0 described the design of the research. Forty-eight subjects ranging from low to moderate in self-esteem were incorporated into the study from a population of 60 volunteers. These subjects comprised three treatment groups of 12 subjects each and one control group of 12 subjects.

The facilitators for the treatment groups were comprised of five masters student volunteers and one doctoral student volunteer who received six hours of T-group training and on-going supervision from the researcher. The treatment of the subjects included seven sessions of three hours each. Each session included a one-hour planned theory input and then two hours which were facilitated according to identified training criteria. The subjects also completed five homework assignments.

The data collecting instruments were the Tennessee Self-Concept Scale and Barrett's Vocational Rating Scale. The procedure employed a pretest and posttest on both measures. Three null hypotheses were devised with an analysis of covariance and a Pearson r correlation to be utilized as the methods of analysis.

4.0 Presentation and Analysis of the Data

The purpose of this study was to determine the effects of T-group participation on vocational self-concept crystallization and self-esteem. This determination was based on assessing significant changes on both of these variables and on assessing the significance of correlation of shifts between these variables from before to after the treatment. The Vocational Rating Scale was used to measure for vocational self-concept crystallization, and the Tennessee Self-Concept Scale was used to measure for self-esteem.

The statistical test used to measure for significant differences from pretest to posttest on both measures was an analysis of covariance F statistic. Where significance was achieved, Scheffe's multiple comparisons of means was used to determine where the differences among means existed. The statistic used to measure for correlation was the Pearson r with a t-test to determine if the correlation was significantly different from a zero correlation. A .05 level of confidence was chosen as the acceptable level of significance. All data were computed by the Oregon State University Computer Center.

Two subjects from two of the treatment groups did not complete participation in the treatment nor the posttest. Both of these subjects left the program early in the treatment for reasons determined to be extrinsic to the T-group experience. For this reason, the mortality effect is considered to be limited. The two subjects were a male aged 19 from group one and a female aged 19 from group three. The total number of freshmen included in the statistical computations was 46.

This chapter describes the statistical analyses used in the study.

The data for each analysis are presented in conjunction with each of the null hypotheses.

4.1 Analysis of Hypothesis 1

Table 6 presents the results of the analysis of covariance on the Vocational Rating Scale scores. These results tested the first null hypothesis, which was stated as follows:

Ho_1: There is no significant difference among posttest mean scores of the four groups on levels of vocational self-concept crystallization.

Table 6. Vocational Rating Scale Results. Analysis of Covariance on Adjusted Posttest Scores.

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Covariates (pre VRS)	13829.764	1	13829.764	79.673	.001
Main Effects (group)	5224.132	3	1741.377	10.032	.001*
Explained	19053.896	4	4763.474	27.442	.001
Residual	7116.822	41	173.581		
Total	26170.717	45	581.571		

*P<.05 (.05 = 2.84)

As can be seen from Table 6, the computed F was significant at the .05 level (P<.001). The first null hypothesis was, therefore, rejected.

Scheffe's multiple comparison of means was utilized to compute critical differences among adjusted means of every group. These critical differences represent amounts which must be exceeded between adjusted means in order to reach a .05 level of significant difference. The critical difference computations are represented in Table 7.

Table 7. Critical Differences from Scheffe's Multiple Comparison of Means for the Vocational Rating Scale.

Groups	II	III	IV
I (treatment)	16.17	16.40	16.11
II (treatment)		16.14	16.05
III (treatment)			16.14
IV (control)			

Table 8 presents the actual differences between adjusted means. These results, when compared with the critical differences, determined the location of the significant difference found in the analysis of covariance for the Vocational Rating Scale scores.

Table 8. Actual Differences Among Adjusted Means for the Vocational Rating Scale.

Groups	Adjusted Means	II 143.84	III 156.24	IV 132.62
I (treatment)	159.53	15.69**	3.29	26.91*
II (treatment)	143.84		12.40	11.22
III (treatment)	156.24			23.62*
IV (control)	132.62			

*Significant at the .05 level
**Approached significance at the .05 level

As can be seen by a comparison of the two tables above, treatment groups I and III were significantly different from control group IV at the .05 level of confidence. Treatment group II was not significantly different from control group IV. There was moderate evidence of a difference between treatment group I and treatment group II. The

comparison of means between treatment group I and control group IV reached significance at the .001 level (C.D. = 24.56). The comparison of means between treatment group III and control group IV reached significance at the .005 level (C.D. = 21.34).

4.2 Analysis of Hypothesis 2

Table 9 presents the results of the anlysis of covariance on the Tennessee Self-Concept scores. These results tested the second null hypothesis, which was stated as follows:

Ho_2: There is no significant difference among the posttest mean scores of the four groups on the levels of self-esteem.

Table 9. Tennessee Self-Concept Scale Results. Analysis of Covariance on Adjusted Posttest Scores.

Source of Variation	Sum of Squares	DF	Mean Square	F	Signifiance of F
Covariates (pre TSCS)	19152.916	1	19152.916	46.861	.001
Main Effects (Group)	3190.292	3	1063.431	2.602	.065
Explained	22343.208	4	5585.802	13.667	.001
Residual	16757.509	41	408.720		
Total	39100.717	45	868.905		

As can be seen by Table 9, the computed F was not significant at the .05 level ($p<.065$). The second null hypothesis was, therefore, retained. No multiple comparison of means was warranted by the data.

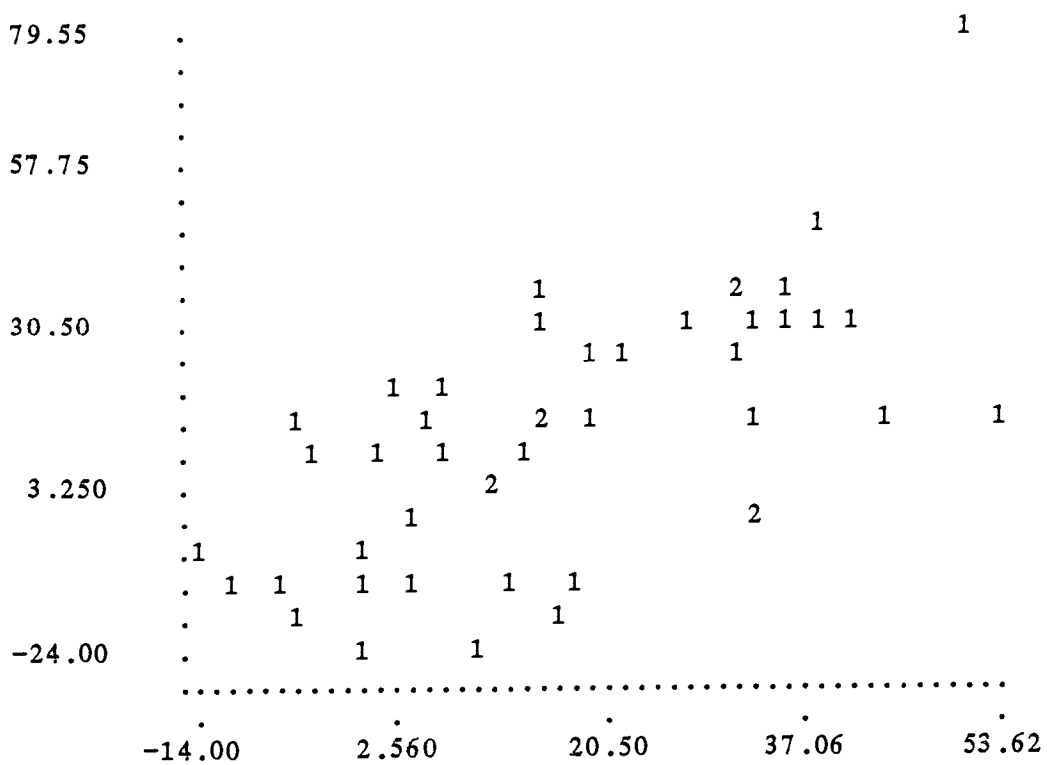
4.3 Analysis of Hypothesis 3

Figure 2 presents a scattergram followed by a Pearson r correlation coefficient and a t-test result to determine if the correlation is significantly different form zero.

These results tested the third null hypothesis, which was stated as follows:

Ho_3: Shifts in vocational self-concept crystallization will be unrelated to shifts in self-esteem following treatment for the four groups.

Figure 2. Scattergram for Shifts Between Pretest and Posttest Scores of the VRS and the TSCS for All Groups Combined.



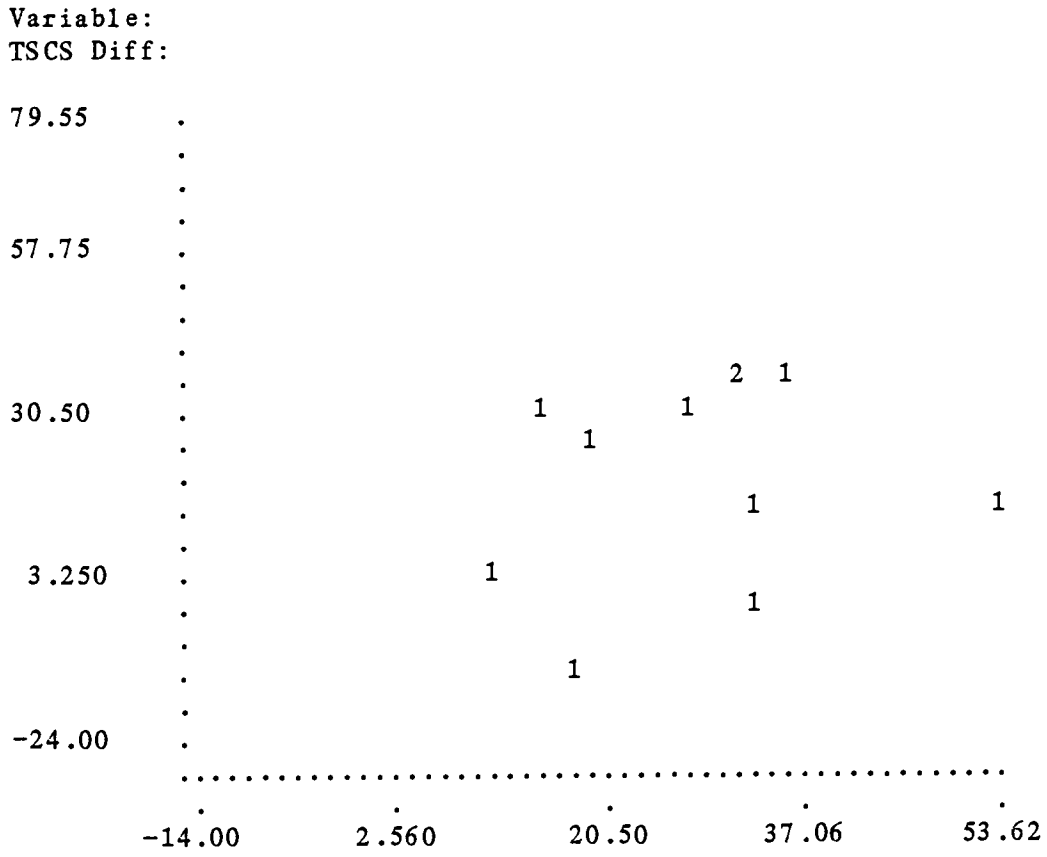
Pearson r = .6479
t = 5.64

$p < .001$

Note: 2s indicate identical scores by two respondents.

As can be seen by Figure 2, the computed t was significant at the .05 level ($p < .001$). The third null hypothesis was, therefore, rejected. In order to determine for which groups this relationship held true, the same computations were performed for each group. The results for these groups are presented in figures 3 through 6.

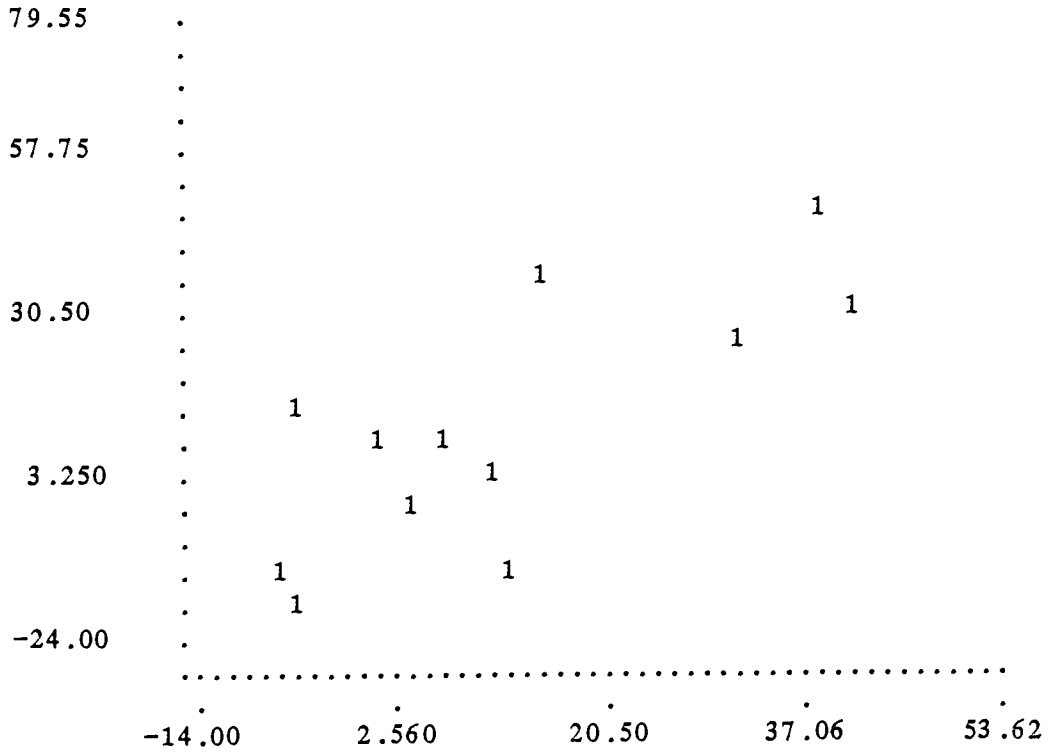
Figure 3. Scattergram for Shifts Between Pretest and Posttest Scores of the VRS and the TSCS for Group I.



Pearson r = .2731
t = .8517
p > .05

As can be seen by Figure 3, the correlation coefficient was not significantly different from zero at the .05 level for group I.

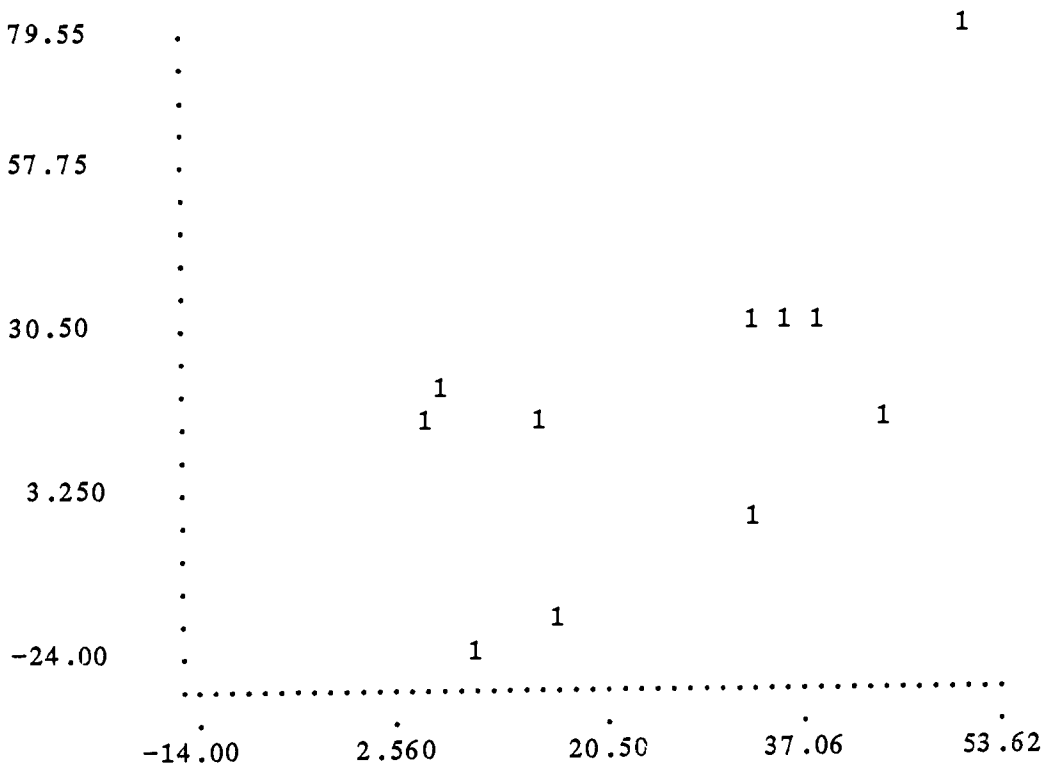
Figure 4. Scattergram for Shifts Between Pretest and Posttest Scores of the VRS and the TSCS for Group II.



Pearson r = .7802
t = 3.944
p < .005

As can be seen by Figure 4, the correlation coefficient was significantly different from zero at the .05 level for group II.

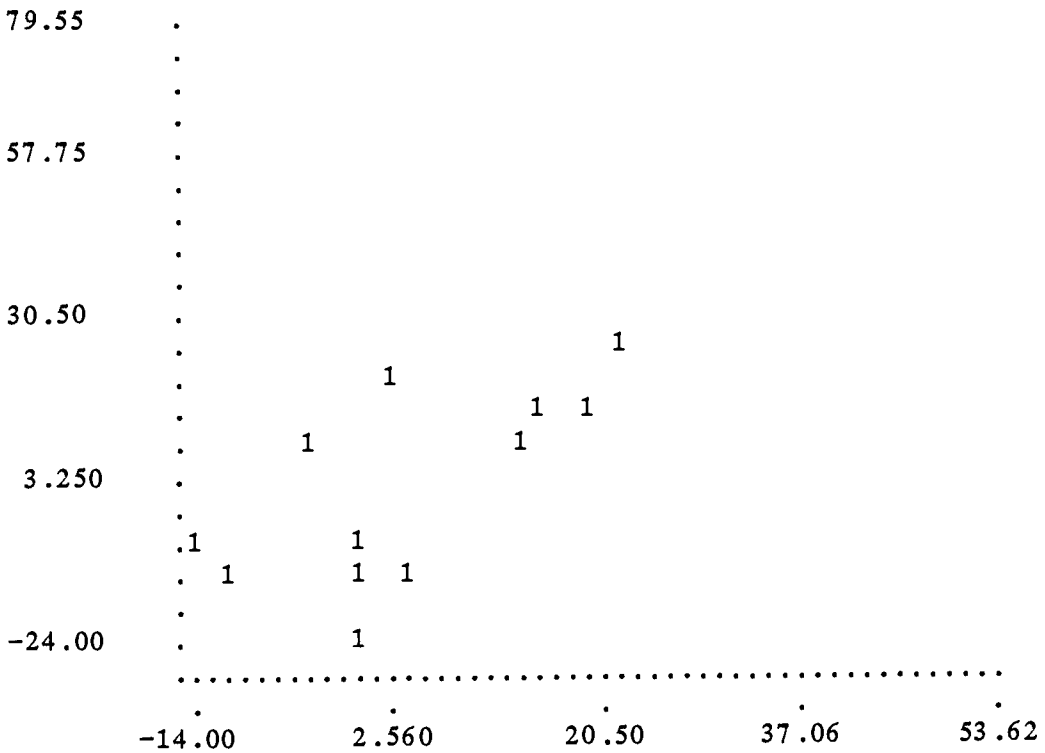
Figure 5. Scattergram for Shifts Between Pretest and Posttest Scores of the VRS and the TSCS for Group III.



Pearson r = .6275
t = 2.4177
p < .05

As can be seen by Figure 5, the correlation coefficient was significantly different from zero at the .05 level for group III.

Figure 6. Scattergram for Shifts Between Pretest and Posttest Scores of the VRS and the TSCS for Group IV.



Pearson r = .6365
t = 2.6097
p < .05

As can be seen by Figure 6, the correlation coefficient was significantly different from zero at the .05 level for group IV.

4.4 Summary

Analysis of Covariance was employed to test the first two null hypotheses. The first null hypothesis that there were no significant differences among posttest mean scores on the Vocational Rating Scale was rejected ($F = 10.032$, $p < .001$). Scheffe's multiple comparison of means revealed that treatment group I was significantly different from control group IV at the .001 level of confidence. Treatment group III was significantly different from control group IV at the .005 level of confidence. It was revealed that treatment group II approached a significantly lower mean than treatment group I. The second null hypothesis that there were no significant differences among posttest mean scores on the Tennessee Self-Concept Scale was retained ($F = 2.602$, $p < .065$).

Pearson's r with a t-test to determine if the correlation was significantly different from zero was employed to test the third null hypothesis. The third null hypothesis that shifts in scores on the Vocational Rating Scale would be unrelated to shifts in scores on the Tennessee Self-Concept Scale was rejected ($r = .6479$, $t = 5.64$, $p < .001$). The same design was employed for each of the four groups. The results were as follows: Group I - $r = .2731$, $t = 3517$, $p > .05$, Group II - $r = .7802$, $T = 3.944$, $p < .005$, Group III - $r = .6275$, $t = 2.4177$, $p < .05$ and Group IV - $r = .6365$, $t = 2.6097$, $p < .05$.

5.0 Conclusion

This chapter contains four sections: (1) summary of the purpose, procedure and statistical results of the study, (2) critique of the study, (3) final deductions on the implications of the study and (4) recommendations for future studies.

5.1 Summary

The purpose of the study was to answer two questions. The first question was whether a T-group treatment, which took vocational choice as its topic, enhanced levels of vocational self-concept crystallization and self-esteem in selected university freshmen. The second question to be answered was whether the shifts in vocational self-concept crystallization were related to the shifts in self-esteem after the T-group treatment.

The sample consisted of 48 volunteers who were enrolled as freshmen during the Spring term of 1981 at Oregon State University. These subjects were randomly assigned to four groups, which included three treatment groups and one control group receiving no treatment. The treatment included seven weekly sessions of three hours each. Two volunteers withdrew during the treatment for reasons extrinsic to the group experience.

Six graduate-level student volunteers in counselor training served as cofacilitators of the treatment groups. Each group had one female and one male cofacilitator. A six hour training session and on-going supervision for the cofacilitators were performed by the researcher in order to present the rationale and method of treatment to be employed and in order to monitor facilitation.

The subjects were administered Barrett's Vocational Rating Scale and the Tennessee Self-Concept Scale one week prior to the treatment for a pretest and one week after the treatment for a posttest. Both instruments are standardized five-point Likert scale measures. Three null hypotheses were formulated in order to assess the significance of

change in the scores on each instrument and in order to assess the significance of the relationship between the shifts in the scores on each instrument from pretest to posttest.

Analysis of covariance was employed to determine the significance of change in scores on both instruments. Scheffe's multiple comparison of means was employed when significance was determined in order to isolate significant differences among groups. Pearson's r was employed to assess the relationship between shifts in scores from pretest to posttest for all groups combined. A t-test was then employed to determine the level of significance of the correlation from zero. The Pearson r and t-test was then employed for each group in order to isolate relationships within groups.

Analysis of covariance revealed a significant difference among the four groups on the Vocational Rating Scale at the .001 level. Scheffe's multiple comparison of means revealed that treatment groups I and III were significantly higher than control group IV at the .001 level and .005 level respectively. Treatment group II failed to approach significant difference from control group IV, but approached a significantly lower score from group I (CD = 15.69). Analysis of covariance revealed no significant difference on the Tennessee Self-Concept Scale, although moderate evidence of a difference existed ($p < .065$). Due to the failure for the difference on this scale to reach significance, no comparison of means is warranted.

Pearson's r revealed a correlation of .6479 for shifts in scores from pretest to posttest between both measures for all groups combined. The t-test revealed that this correlation was significantly different from zero at the .001 level. The Pearson r computations for each group

individually revealed mixed results. A Pearson r for group I was the only correlation which failed to be significantly different from zero (r = .2731). Group II reached significance at the .005 level (r = .7802). Group III with an r value of .6275 and group IV with an r value of .6365 both were significantly different from zero at the .05 level.

5.2 Critique

Unlike research in the physical sciences, research in the social sciences often fails to approximate perfect laboratory conditions where all of the variables affecting an experiment can be controlled (Campbell and Stanley, 1963). The planning and implementation of any research design in the social sciences is, therefore, a compromise among the degrees of control for each of the variables known to impinge upon the results. This section discusses the relative degrees of control of various variables in the project in the format presented by Campbell and Stanley (1963).

Internal Validity

The primary question for this research is whether the treatment accounted for any differences found in the experiment or whether variables inherent in the design of the study accounted for those differences. This is the question of internal validity. The pretest-posttest control group design utilized in the study controls all those variables affecting internal validity. Two of these variables, however, warrant examination: namely, statistical regression and experimental mortality.

Statistical regression was inherent in the design because subjects were selected on the basis of extreme low scores on the Tennessee Self-Concept Scale. Since scores tend to cluster around the mean, these extreme scores would have the tendancy to move upward towards the mean upon retesting. In order to adjust for this effect, an analysis of covariance statistical tool was selected to measure for significant

differences. Statistical regression does not, therefore, jeopardize internal validity in this study.

Experimental mortality occurs when there is an unequal drop out of subjects in the experiment among the different groups being compared. The basic assumption regarding threat to internal validity by this factor is that some aspect of the treatment causes the dropping out. In this case, for instance, the treatment may have threatened select participants. The effect of such a threat is not measured, because these participants took no posttest. Threat or some other confounding variable due to treatment may or may not have resulted in a sampling bias.

The first consideration is whether the mortality rate was such that the missing participants had a marked effect on the statistical computations. Since only one participant from two of the four groups dropped out, this is judged by the researcher to be minor in its effect. The second consideration is the role of the treatment in the mortality. Both participants were contacted by the researcher after two sessions were missed and, in both cases, factors external to the treatment were cited as reasons for dropping out. In addition, both participants dropped out early in the treatment. Mortality is, therefore, considered by the researcher to be only a minor threat to internal validity.

External Validity

The secondary question for this research is whether the results can be construed as representative of what would probably occur in other settings with other populations, treatment variables and measurement variables. This is the question of external validity, and it is a

question which cannot be conclusively answered. The next best thing is to replicate the research in many other settings. Several factors of external validity in this study are examined in order to recognize certain limitations in generalizability of the study to other settings.

Several critiques associated with the sampling procedure followed in the study are warranted. All of the subjects participating in the research volunteered. This occurrence separates the research population from the population of the freshman class as a whole. One of the most visible results of this is the proportion of females to males in the study. Thirty-four females and 12 males completed the research requirements. To have balanced each group with equal numbers of each sex would have reduced the number of participants to 24 members. This number would have weakened the power level of the analysis from .80 to .50 for an effect size of .25 (Cohen, 1969). In other words, the chance for the occurrence of a type-one error would have risen from 20% to 50%. Since this was unacceptable, several studies were located which measured for sex interaction (Barrett, 1976; Perovich and Mierzwa, 1980 and Lunneborg, 1978). The results from every study indicated that sex was not a factor in neither vocational maturity nor self-esteem. The decision was, thus, made by the researcher to maintain the power level of the analysis and allow the sex differences in the sample to stand.

Besides the volunteer and sex difference aspects of the sample, a third critique involves the total size of the sample. The sample size of 48 allows for "gross differences" to be identified (Cohen, 1969). If a sample size of 134 subjects were practical in terms of the mechanics of the project, differences would not need to be gross in order to detect significant changes. The sample size of 48 is, therefore, one

whereby chances of a type-two error are greater than that of a sample size of 134. This is particularly relevant to this study where the change in self-esteem approached significance.

The primary factor jeopardizing external validity in this study was control of the independent variable. This factor involves several issues centering around the facilitators. The T-group model utilized in this study was fairly complex, and the facilitators were inexperienced. Only one of the six facilitators had ever facilitated a group of this nature before the experiment. In order to monitor the facilitation, the researcher invented the Facilitator Rating Scale (Appendix B). The scale could not, however, be considered an adequate control because neither validity nor reliability for the instrument was investigated. The only criterion for evaluation of whether the facilitation adhered to the training model was the subjective judgment of the researcher.

The design removed a large component of experimenter bias by removing the researcher from contact with the subjects. This bias did exist, however, with the facilitators. There were two comments by facilitators during their supervision concerning their fear that any errors that they might commit would jeopardize the success of the experiment. This fear may have inhibited the development of a comfortable facilitating style within the parameters of the training model.

Two other factors jeopardizing external validity in this study are the Hawthorne effect and the interaction of testing with the treatment. The researcher was required to inform subjects that they were participating in an experiment. Any believable placebo group would very likely have a legitimate impact on the measured variables. The items on

the instruments used may have sensitized the subjects to the effects of the treatment on the dependent variables. Thus, the Hawthorne effect and the effect of the interaction of testing with the treatment were not controlled.

From the foregoing discussion of internal and external validity, the researcher concludes that the experiment was internally valid and that care must be taken concerning any interpretation as to the generalizability of the study. Campbell and Stanley (1963) indicate that, even with an internally valid experiment, any findings are limited to that one particular time and setting. The question of external validity can only be answered through replication.

5.3 Final Deductions

The conclusions to be drawn from this study are tentative in nature, since the replication of the treatment revealed different results from different groups. Further studies are required to either support or not support these results.

The results from groups I and III on the Vocational Rating Scale support the conclusion that the T-group treatment enhances vocational self-concept crystallization for the selected population. These groups exhibited a higher degree of formulation of their vocational self-attributes after treatment. The results from group II, however, fail to support this conclusion.

The Facilitator Rating Scale (Appendix B) was devised as a crude measure of the degree to which the facilitators for each group adhered to the training criterion. The researcher selected a 10-minute segment from the tape of each session without prior listening. If, in the subjective judgment of the researcher, a critical incident (Cohen and Smith, 1976a) occured the appropriate criteria on the scale would be rated. The ratings were on a five-point scale ranging from one (1) for a very highly effective intervention to five (5) for a negatively effective intervention. The instrument and procedure utilized were not intended to provide a reliable and valid assessment, but rather an exploratory attempt to account for differences in facilitation. A mean was computed of all the ratings for the life of each group.

The Facilitator Rating Scale revealed mean intervention ratings for group I as 2.30, for group II as 1.9 and for group III as 1.37. This highly subjective measure suggests that those interventions employed did

correspond with the training model. The facilitation of group III was consistently rated very high. This group included the only facilitator with prior T-group facilitation experience. Group I received low ratings on encouraging group self-facilitation. Group II received low ratings on employing "I" statements in interventions through the use of questioning and on using an appropriate level of interpretation. During researcher supervision of this group, the facilitation error of not providing support for self-disclosures when the group had not provided that support was uncovered. Three sessions were devoted to overcoming this error. The implication from these occurrences is that the amount of prior T-group facilitation experiences may have been a component contributing to the conflicting results. Gibb (1974) recognizes that facilitator experience is a factor in enhancing self-esteem in T-groups. For five of the six facilitators, this was the first attempt to translate education on group counseling into actual practice.

The fact that all of the subjects received the same planned theory inputs and completed the same homework assignments may point to the importance of the small group meetings. Two possible interpretations from the difference in significance between groups on the VRS are that the experiences in groups I and III catalyzed the didactic material presented or that the experience of group II somehow negated the self-concept crystallization resulting from the didactic material presented.

The results from the three treatment groups support the conclusion that the T-group treatment in this study did not significantly enhance levels of self-esteem in the seven week experimental period. The change which did occur, however, approached significance ($p < .065$). The

identification of a treatment addressing the psychological component of an internally based self-esteem for freshmen undergoing vocational counseling still remains. With five of the six facilitators having no prior T-group facilitation experience and undergoing only six hours of training in this specific model, however, this result of a .065 level shows substantial promise for enhancing self-esteem after further refinement of the treatment. This inference is also based upon the moderate relationship between shifts in self-esteem with shifts in vocational self-concept crystallization.

A comparison of the results from the analysis of covariance supports the interpretation that vocational self-concept crystallization may be more susceptible to change than global self-esteem under this kind of setting. Theoretically, however, this position must be approached with caution. Tharenou (1979), in reviewing the literature on self-esteem, stated, "Two points of view exist regarding the stability of adult self-esteem." She indicated that one view holds self-esteem to be a "relatively stable personality trait" undergoing change primarily through "major life changes." The other view holds self-esteem to be altered more simply by "persuasive appeals" or from successful or unsuccessful life events. The second view is supported by two experiments performed by Friedenberg and Gillis (1977 and 1980). In both experiments, a significant change in self-esteem as measured by the TSCS and other measurements was revealed by simply exposing students to an eight-minute videotape by a favorably presented psychologist on Ellis' ten irrational beliefs and on informing the students that they were better than they thought.

This writer maintains that the two points of view represent two

separate psychological constructs, each of which are sensitive to self-esteem measures. The concepts provided in chapter 2.0 of this document that Maslow theorizes two kinds of self-esteem may account for differences in susceptibility to change. Self-esteem which is based on social approval changes as the external social evaluations change. Self-esteem which is based on a more internal basis of evaluation is theoretically less likely to change. This writer also maintains that research such as Friendenberg and Gillis' is more conducive to the experimental situation. An internally based self-esteem would only be logically isolated from its external cousin through the use of some as yet undeveloped, highly sensitive, unobtrusive measure.

That aspect of the treatment used in this study which was directed at vocational self-concept crystallization was directed to subject selection of vocationally relevant self-attributes. This aspect was not, however, as experientially based as the aspect addressing self-esteem. As such, the vocational self-concepts of the participants in the study were challenged substantially less than their self-esteems. Such a challenge to the vocational self-concept will certainly ensue upon employment. The strength to meet this challenge may very well be related to the level of an internally based self-esteem.

The results from the four groups combined on the relationship between vocational self-concept crystallization shifts and self-esteem shifts support the conclusion that the two shifts are moderately related. This moderate relationship also holds individually for the two groups that did not exhibit significant changes in either variable. The results for the two groups exhibiting significant change on the vocational self-concept crystallization variable differ, however. These

results support the conclusion that the relationship which holds for groups which have not undergone significant change does not necessarily hold for groups which have undergone significant change under this treatment. This finding raises several questions in the researcher's mind which need to be explored:

1.) What other variable(s) may be operating to account for this difference? Other possible variables include the individual personality differences of the members in each group and the difference of personal styles of facilitation. The possibility also exists that the level of expertise exhibited by the facilition of group III over that of group I accounted for the difference in correlations. The failure to encourage group faciliation in group I may have been an important factor, for example.

2.) Does the relationship in shifts have any bearing on the longevity of the treatment effects? If delayed effects exist, a comparison of groups exhibiting significantly correlated shifts with those that do not could provide a valuable insight into the nature of the relationship between vocational maturity and self-esteem. If the higher level of VRS scores persist with a delayed increase of TSCS scores, perhaps that aspect of the treatment aimed at enhancing self-esteem requires no further refinement. Perhaps treating for self-esteem is not even necessary. If the VRS scores declined only in the group exhibiting the lower correlation, the necessity of treating for self-esteem would be supported.

3.) Would this difference of relationship in shifts exist if all

treatment groups achieved significant changes in self-esteem? If the difference did exist under such a finding, a much greater understanding of the relationship between the two variables in different participant personalities would be needed, assuming uniformity of treatment was achieved. If the difference was eliminated, a viable type-four treatment as described in chapter 1.0 would be identified.

Complete answers to these questions are beyond the scope of this study. Group III exhibited a high correlation in shifts. It is also the group whose facilitation most closely approximated the training model on the Facilitator Rating Scale. The fact that individual differences in the subjects may have contributed to different kinds of interaction must also receive equal consideration. A summary of the conclusions from this study is as follows:

1.) The T-group treatment did reveal enhanced levels of vocational self-concept crystallization in some selected university freshmen groups such as those incorporated into this study.

2.) The small-group experience may have a mediating influence between the didactic material presented and vocational self-concept crystallization.

3.) The T-group treatment did not reveal a significant change in levels of self-esteem in selected university freshmen. There is, however, moderate evidence of a change in self-esteem ($p < .065$) for these groups.

4.) The T-group treatment revealed a moderate relationship between shifts on the two variables for groups not exhibiting significant change on the two variables. For one of the two

groups exhibiting significant change on the VRS, a moderate relationship between shifts on the two variables did occur under T-group treatment.

5.4 Recommendations

The development, implementation and findings of this research have stimulated several suggestions by the researcher for future research in this area. The study demonstrated that a highly significant change in vocational self-concept crystallization can occur with a T-group treatment. The study also demonstrated that a significant change in self-esteem with this treatment may be close at hand. A relationship of shifts in the two variables due to treatment can also occur. These events suggest the following recommendations for further study:

1.) The possibility that the small-group experiences act as a mediating independent variable on vocational maturity be investigated. The question remains whether the small groups catalyzed the assimilation of the didactic material presented into the vocational self-concept or hindered that assimilation. A replication incorporating a new group receiving only didactic presentations and materials is recommended.

2.) A stronger control on the independent variable be pursued. The difference in treatment effects on vocational self-concept crystallization and on the relationship of shifts between the variable and self-esteem suggests a greater uniformity of treatment. The selection of more highly experienced and trained facilitators is, therefore, recommended. A stronger assessment of the facilitation is also recommended in order to more effectively control for variation in the treatment. This assessment may be pursued by validity and reliability studies

on the Facilitator Rating Scale.

3.) A further refinement in the treatment addressing self-esteem be designed. A lengthening of the number of treatment sessions is recommended in order to provide more planned theory inputs on self-esteem and in order to allow more time for facilitating the integration of a more positive self-esteem into the personality structures of the participants.

4.) The selection of a personality instrument such as the Edwards Personality Profile to delineate possible personality factors contributing to the effectiveness of the treatment be made. The incorporation of such an instrument during the pretest is recommended. A median split based upon the shifts on each dependent variable could then be employed, and an examination of the personality factors for each group could be compared.

5.) Both subpopulations of freshmen and populations of sophomores and of juniors receiving the treatment be studied. A study of subpopulations based on Holland's theory is recommended. The possibility that the treatment may be effective with only some participants representing specific Holland types is a strong theoretical position. Different types exhibit different theoretical orientations to human interaction and to degree of field dependence. Subpopulations of undifferentiated versus differentiated typologies and of inconsistent versus consistent typologies may also be an independent variable. Differentiated typologies may score higher on the VRS and require only treatment for self-esteem. Inconsistent

typologies may score higher on the TSCS and require only treatment for vocational self-concept crystallization. A comparison of subpopulations based on career salience (Greenhaus, 1976) may also be warranted. The treatment may or may not be effective only for those students who value vocations highly. A comparison of treatment effects between freshmen, sophomores and juniors may reveal the impact of student development upon the effect of treatment.

6.) The impact of the treatment upon other psychologically related dependent variables be explored. A replication of the research with self-actualization, locus of control and/or anxiety measures is recommended.

7.) The design of the study be adjusted to add a fourth treatment group and to add an investigation of the delayed effects of the treatment. The addition of a fourth treatment group would yield a more precise measurement of change in self-esteem. An increase in the number of subjects requires a smaller increase on the dependent variables for finding a statistically based significant difference. This study measured for only gross differences in the data. The impact of time on the dependent variables warrants analysis. Both the possibility of a regression of vocational self-concept crystallization and of a delayed increase or decrease of self-esteem exists.

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Appendix A

Facilitator Training Model

I. Introduction to the Project

1. The rationale linking vocational self-concept crystallization to self-esteem was presented as stipulated in chapter 2.0 of this document.

2. The broad definition of T-groups was discussed from chapter 1.0. A quick presentation of a handout entitled "Terms and Their Definitions to Aid in Understanding Group Process" was given. The terms on the handout included:

a) Goal setting	g) Openness	m) Fight
b) Here and Now	h) Hidden Agenda	n) Gate-keeping
c) There and Then	i) Invisible Committees	o) Control
d) Feedback	j) Accepting	p) Listening
e) Expressing Group Feeling	k) Support	q) Conflict
f) Leveling	1) Competition	r) Flight

3. Facilitators were asked to respond verbally to the following four incomplete sentences:

   a.) As a group facilitator, the way I really want someone to see me is . . .
   b.) I would just die if people saw me as . . .
   c.) The group should . . .
   d.) If you do what's right as a group, then I would be . . .

Discussion followed on how what was shared could be used by group members to hook them into unconsciously motivated interventions.

II. Group data, processes and issues

1. Group data was defined as any perceptual observation of the members, i.e., nonverbal and verbal behavior. The facilitators and the researcher then brainstormed examples of group data. The researcher provided examples from Bates and Johnson (1973). Facilitators were instructed to take notice of any nonverbal

cues which seemed incongruent with what was being spoken by group members.

2. Group processes were defined as <u>how</u> the group operated. Process was described as the between, the interaction relationship. In order to integrate the concepts of data and process, the handout entitled "Observing the Process" by Bishow (1980) was presented. This handout included frequencies of dyadic communication between each member and each other member, of "I" and "You" statements, of feeling references, of amount of time for speaking by each member, of topic changes and of other data and processes. Other processes presented were those included under the first two sections of the Facilitator Rating Scale, provided in Appendix B. These processes were taken from Bates and Johnson (1973) and from Egan (1976).

   The handouts entitled "Rules for Observation and Intervention" and "Blocks to Good Observation" by Yarbrough (1980) were carefully discussed. These handouts stipulated the importance of waiting to respond, of using one's imagination to picture what members are saying, of refraining from holding interpretations as fact, of observing in the present, of the danger of focusing on what should be happening instead of what is happening and of not always searching for harmony.

3. Group issues were defined as Schutz's three basic interpersonal needs of inclusion, control and affection as presented in Boshear and Albrecht (1977). These issues constitute unresolved matters, each of which bubble to the surface at different stages of the group's life. It was pointed out that

data and processes can be used by the facilitator to formulate hypotheses concerning the issues operating in the group. These hypotheses could only be verified as existing by members of the group.

III. Intervention

1. Facilitators were instructed to use their judgment concerning when the energy level of the group concerning an issue became blocked. This was described as the most optimum point for a facilitator intervention to be directed at resolving an issue.

2. The goals for facilitator intervention were enumerated as:

   a) Timely awareness elevation.
   b) Reinforcing the correct working of the group.
   c) Stimulating alternatives.
   d) Protecting the members of the group.

3. The approach to be taken for intervening was described as:

   a) Form your inference or hypothesis from the patterns of the data and processes.
   b) Wait until you observe a reoccurrence of the pattern.
   c) Report the data in the hope that the group inference will emerge.
   d) If no group inference emerges, wait on another reoccurrence and facilitate a group inference by reporting the new data and requesting interpretation.

4. The Hill Interaction Matrix from Bates and Johnson (1973) was discussed to describe the stages of group development. This provided the facilitators with a conceptualization of what direction to facilitate movement to the effective working of the group as presented on the Facilitator Rating Scale (Appendix B). Movement was to be directed to the member-centered level and the confrontive stage of the matrix at whatever pace the group allowed. This pace involved a

judgment from the facilitator concerning an optimum energy or anxiety level for the growth of the members (Luft, 1970).

5. The intervention cube described by Cohen and Smith (1976a) was presented and discussed. The facilitators were instructed to formulate interventions directed to the group level of an experiential type of low intensity for the first three meetings. This was to be the predominant, but not the only, formulation of an intervention. After this time, all dimensions of the cube were to be more operative in the interventions in accordance with facilitating movement.

6. The critical incident model from Cohen and Smith (1976a) was then presented in order to provide a framework for role-playing examples. Examples of critical incidents were selected from Cohen and Smith (1976b). These included the following critical incidents:

    a) B-3: Ignored Request
    b) B-15: Leader or Member?
    c) M-10: High-Risk Disclosure
    d) M-13: Attacking the Leader

    The role playing involved each facilitator's responding at the end of the choice point presented. Each response was refined by the group in accordance with the training presented. After this process, the rest of the critical incident example was presented and discussed.

7. The facilitators were provided five handouts to be read as a homework assignment. These were as follows:

    a.) Pages 64 and 116-126 of Dyer (1972).
    b.) Ways to Enhance Your Experience in a Training Group (Keltner, 1980).
    c.) Facilitator Intervention Process in Personal Growth and Development Groups (Keltner, 1980).

d.) Guidelines for Group Process Observations.
e.) Co-Facilitating (Pfeiffer and Jones, 1975).

IV. On-going Supervision

1. The researcher met with all facilitators for a period of time ranging from 1 1/2 hours to 2 1/2 hours immediately after each session. The facilitators would present what had occurred in their groups, what had been the nature of their interventions and what problems they had observed to be present or forthcoming. Discussion of future strategies to be employed was brainstormed by the whole group. The researcher confronted facilitators on their feelings and stimulated role playing of interventions.

2. The researcher listened to a minimum of 45 minutes of segments from each session for each group. This began with a ten-minute segment which was evaluated with the Facilitator Rating Scale (Appendix B).

3. Facilitators were required to maintain a journal which was to contain all interventions recorded in the critical incidents format.

4. When individual supervision was required, as determined by listening to the tapes, the facilitator met with the researcher and used the journal as the basis for discussion. All supervision was based on the training material and the Facilitator Rating Scale criteria, although the ratings from the scale were not presented to the facilitators.

Appendix B

FACILITATOR RATING SCALE

The rater will listen to an audio taped segment of the group session and choose those items of the scale relevant to the process of the group. The rater will enter a number ranging from one to five to designate the following levels of facilitation: 1 — Very highly effective; 2 — Highly effective; 3 — Moderately Effective; 4 — Non-effective; 5 — Negatively effective.

I. Protecting the members of the group.

____ 1) Encouraging support for self disclosure
____ 2) Providing support when the group does not
____ 3) Blocking inappropriate pressures placed on members
____ 4) Suggesting "I" statements
  a) when questioning
  b) when speaking for others or about others
____ 5) Discouraging focus on only one individual inappropriately
____ 6) Blocking the invasion of the privacy of non-group members
____ 7) Blocking the rescue of those being appropriately confronted
____ 8) Blocking the blaming of members of the group
____ 9) Suggesting rules for feedback
____10) Acting as a referee in conflict situations
____11) Revealing unknown consequences of behavior
____12) Uncovering the interruption of members

II. Revealing the flight patterns to the group.

____Socializing
____Rationalizing
____Joking
____Jumping Topics
____Talking About Others
____Operating in the There/Then
____Overanalyzing
____Psychologizing
____Ritualizing

III. Reinforcing the effective working of the group.

____Expressing feelings
____Acknowledging others
____Encouraging or supporting
____Reconciling differences
____Requesting feedback
____Exploring alternatives
____Inviting others to participate

IV. Structuring the intervention.

__Timeliness
__Conciseness
__Use of Silence
__Consideration of nonverbals
__Appropriate Voice or Tone Quality
__Appropriate self-disclosure
__Encouragement of group self-facilitation
__Appropriate level of interpretation
__Appropriate Level (Cohen's cube)
__Appropriate Intensity (Cohen's cube)
__Appropriate Type (Cohen's cube)
__Use of "I" statement
__Unrepetitive Terminology
__Use of exercises
__Consideration of group energy level
__Concern for group issues

Appendix C

Planned Theory Inputs

The planned theory inputs consisted of seven, one-hour presentations shared equally by the six facilitators. Some inputs were presented by one facilitator, while others were presented as a team of two to four facilitators. These inputs were as follows:

Session I. - Vocational Misconceptions and Group Groundrules

The first half of this session centered on misconceptions by students as they begin to consider their vocational choices to be made. The material was condensed from Williamson (1937), Thompson (1976) and Lewis and Gilhousen (1981).

Williamson (1937) presents 10 false attitudes:

1.) We glorify the unusual, e.g., all lawyers are like Perry Mason.
2.) White collar occupations are more prestigious.
3.) There's a perfect niche for all of us.
4.) We misread signs of interest.
5.) We don't decide for fear of a blind alley.
6.) Only stupid people have to study.
7.) We reject unattractive occupations as a result of labelling.
8.) We all have a potential for greatness.
9.) We have equal ability for all occupations.
10.) We're anatomically suited for a specific occupation.

Thompson (1976) enumerates four misconceptions:

1.) There must be an exact and single vocational plan.
2.) Vocational choice is made at only one time and is final.
3.) Vocational instruments can indicate what a person should do.
4.) Instruments describing traits, interests, abilities, and intelligence can measure future success.

Lewis and Gilhousen (1981) reiterate some of the above material and

put forth these three additional myths:

1.) There is a basic "set of rules that, if followed, will lead to the good life."
2.) There is no more important aspect of life than one's work.
3.) In order to win once a plan is initiated, one must always stick to it until the bitter end.

The second half of the first planned theory input was designed to specify to the group what their work was to be in their two-hour sessions. A handout by Keltner (1980) was presented to describe how members could enhance their experience.

Members were informed that the facilitator would not determine the content of their meetings, but would show the group how it was operating at different points of the group's life. Members were responsible for sharing whatever their concerns were in regards to exploring themselves, their careers and their interactions with one another. If a member would choose not to share these concerns, the facilitator would insure that this desire be respected by the group. Topics presented were:

1.) Here-and-now
2.) Being responsible for one's communication
3.) Being authentic and open
4.) Allowing individual differences
5.) Being aware of one's body
6.) Talking to others (not at or about them)
7.) Using statements in place of questions
8.) Being specific, descriptive and tentative
9.) Describing feelings
10.) Owning interpretation
11.) Taking risks
12.) Timing comments

Session II - Self Disclosure and Risk Taking

The errors committed by inappropriately not risking and inappropriately risking were discussed as presented by Jones (1972). This was followed by an exercise where everyone paired up with one other

person. They closed their eyes and imagined a risky self-disclosure. They then imagined the worst possible reaction by their partners. After this they opened their eyes and shared with their partners what it would feel like to have their disclosures treated in this way and what they would think of their partner under such a circumstance.

They were then instructed to imagine a risky disclosure that they were unwilling to share. This time they were to imagine the most wonderful response the partner could give and share what feelings and attitudes toward the partner that they may be missing.

Materials from Jourard (1971) and Powell (1969) were presented. Concepts included the following:

1.) Appropriately received self-disclosures strengthen identity.
2.) The depth of feeling communication determines the depth of growth.
3.) So many of us choose boring lives free from self-disclosure.
4.) A group that incorporates the four ingredients of caring for each other, respecting each other, responding to each other and getting to know each other as they know themselves is the group that grows through self-disclosure (Fromm, 1963).
5.) Attitudes of joking, superiority, fear, superficiality and dishonesty inhibit growth through self-disclosure.
6.) Powell's five rules for self-disclosure were presented.
7.) Members were cautioned not to strip people of their masks.

Session III - John Holland's Six Types

This planned theory input began with the completion of a worksheet including spaces for six responses to the following unfinished statements:

1.) I like to be around people who...
2.) Leisure activities I like are...
3.) Some qualities I would like in my work (present or future) are...
4.) I would prefer to live in an environment which...
5.) Some things or objects I like to have around me are...

6.) My top three occupational themes are (completed later)..

The six occupational interest themes from Holland (1966) were then presented briefly. After each theme, the class was instructed to close their eyes and imagine being at a party made up of people of each type. They were to imagine the kinds of discussions, leisure activities, dress, preferred drinks and voting habits of each theme. The class members finally selected one theme that described them the most and went to a position in the room designated for that theme. The facilitator then facilitated discussion between the groups based upon their similarities and differences with each other.

Session IV - Career Lifestyle Fantasy

Class members were instructed to relax, close their eyes and free their minds of all reality constraints. They were then led through a progressive relaxation of all the muscle groups within the body.

The fantasy proceded from an imagined cabin in a pine forest to the outside and through a fog in the forest to another cabin where their future selves resided on their death beds. Their future selves were reading their autobiographies and gave these autobiographies to their present selves for reading (Frankl, 1967). The members were led through each stage of their future considering types of friends, fellow employees, economic positions, possessions, work duties and environments and lifestyle activities. They were asked to imagine any advice their future selves would provide, embrace their future selves and return through the fog to the cabin and back to the classroom.

Session V - Self-Actualization

This lecture began with a story depicting a college which was organized and attended by animals in the forest (Canfield and Wells, 1976). The objective of the story was to illustrate how today's system of education can strip a person of the uniqueness a person has in solving life problems.

The rest of the lecture was a synopsis of the self-actualization theory of Abraham Maslow (1968). It began with the concept that the basic choice of self-actualizing oneself involves moving away from the choice of safety to the choice of growth. This involves living a life of utilizing one's ability to choose, rather than habitually responding to all life situations.

The self-actualizing individual was described in detail with an emphasis on how the self-actualizing individual is not afraid to fail in order to grow from the experience. It was expressed that all people have a tendency to greatness. The goal was to move from simply coping with one's deficient needs to expressing one's inner and beautiful self.

Session VI - Where All Things Belong

This session was a showing of the 28-minute movie entitled "Where All Things Belong." The movie builds on the self-actualization theme with vivid color and quality music and song. The intent of the movie was to provide a highly sensitive impact on feelings of self-beauty and having meaning in life.

The movie is available from:

Essentia
Salina Star Route
Boulder, Colorado 80302
(303)-443-3484

Session VI - Review and Closure

Each of the planned theory inputs from previous sessions were outlined with the purpose of relating the subjects to one another. The following seven points were described with the indication that each point has different meaning within a T-group than it does outside a T-group:

1.) Openness and Honesty
2.) Nonverbals
3.) Terminology
4.) Descriptions of the group experience
5.) Confidentiality
6.) Personal growth
7.) Post group relationships

The class was instructed to perform a group exercise within their groups for the evening. Each member who so desired was to volunteer to receive feedback from the other group members. The volunteer was to remain silent and passive while each of the other members approached. With an established eye contact, the volunteer was to be told what unique contribution that person had given to the group and what positive essence the person possessed. If any unfinished business existed, the person was to communicate nonverbally to the volunteer that the person was willing to let go of the personal difficulty.

Appendix D

Homework Assignments

Assignment I - Group Description and Guidelines

The first assignment included 30 pages of material to be read. The material was directed at elucidating the role of a member in a group and enumerated possible goals to be pursued. The material included five handouts provided by Keltner and a handout on group experience provided to the chairman of the Counselor Education Department at Oregon State University by the Exploration Institute. The material is outlined as follows:

1.) Group Description and Guidelines
   a.) The Laboratory Group Structure - Placed the responsibility for group content on members.
   b.) Our Content Is Us - Established the interpersonal relations and intrapersonal experiences of the group and its members as the content to be explored.
   c.) The Here and Now - Communicated the necessity of avoiding past and future concerns and other persons outside the group.
   d.) The Group Is Unique - Presented the fact that each group experience cannot be duplicated.
   d.) Participation in the Laboratory - Degree of participation would have no impact on grades for the class. Participation was to be restricted to the time in which the group meets.

2.) Behavior Norm for the Class
   a.) The group behavior was to provide support for the members. Any criticism was to be restricted to criticism requested by the person and only provided with constructive suggestions for change.
   b.) Presence at every session was strongly encouraged.
   c.) Prompt completion of homework was strongly encouraged.

3.) Description of Feelings
   a.) Expression of emotions takes many forms, i.e., nonverbals, actions and words.
   b.) The same expression represents different emotions.
   c.) Inferences from expressions are often inaccurate.
   d.) Communication of feelings is difficult, but sometimes extremely rewarding.

e.) Describing a feeling must refer to "I" or "me" and be followed by a specific feeling word, e.g., "I feel angry".
f.) Feeling expressions are often contradictory.
g.) To come closer to understanding another's feeling, a perception check is often necessary.

4.) Owning Our Statements and Ideas
a.) Subtle and often unconscious use of indefinite pronouns water down feeling statements.
b.) Utilize the first person when expressing feelings.

5.) Some Observations On and About the Here and Now
a.) Examples of Here/Now and corresponding There/Then statements were provided.
b.) Here/Now involves common experiences of the members.
c.) Past and future references are used in an attempt to answer the question of "why?" Present references are used in an attempt to discover what is happening.

6.) The Group Experience
a.) Much of the above material was reiterated.
b.) Examples of experimenting with new behaviors was provided.
c.) How to tune into yourself was described.
d.) The nature of layers underlying feelings of fear, anger, and guilt and how to uncover them was explored.
e.) Twelve blocks to expressing feelings were enumerated.
f.) The role of "shoulds" and "oughts" in stopping the trusting of one's feelings was given.
g.) Seven suggestions on what to do when the group is not moving were provided.

Assignment II - The Occupational Card Sort

On each of several 3 x 4 cards was placed a name of an occupation. The occupational titles were taken from the Strong-Campbell Vocational Interest Blank. The subjects then performed the following tasks:

1.) They formed three piles from the cards. These piles represented occupations the subject might choose, would not choose, and would be indifferent to.

2.) The indifferent pile was discarded. With each of the other two piles, the subjects performed the following:
a.) Separated the piles into groups based on similar reasoning for accepting or rejecting the occupation.
b.) For each group, the subjects stipulated the similarity and indicated why they either chose or did not choose the group.

3.) The might choose pile was used to select and rank order ten occupations the subjects most preferred.

4.) Beside each of the ten rank-ordered occupations, the subjects indicated a phrase or value describing why the specific occupation held importance for them.

Assignment III - Self-Directed Search

Each subject completed the Self-Directed Search - A Guide to Educational and Vocational Planning by John L. Holland, Ph.D. The S.D.S. utilizes expressed activities, competencies, attitudes, abilities and skills to arrive at a rank ordering, or summary code, of Holland's six vocational types. The subjects utilized Holland's Occupations Finder to list several occupations with the same or similar summary codes.

The S.D.S. is available from:

Consulting Psychologists Press
577 College Avenue
Palo Alto, CA 94306

Assignment IV - How to Study an Occupation

The subjects were instructed to locate the Occupational Outlook Handbook in the library and complete a three-page questionnaire on one chosen occupation. The questionnaire covered these ten areas:

1.) What the work involves, what specializations exist and what tools are used.
2.) Number of workers by sex and national region.
3.) Future prospects.
4.) Personal, physical, age and ability requirements.
5.) Preparation and experience required for entry.
6.) Working conditions.
7.) Earnings, equipment and uniform requirements and retirement and sickness provisions.
8.) Opportunities for advancement and occupational changes.
9.) Licensing, certification and union requirements.
10.) Sources for further information.

Assignment V - How To Direct Your Own Life

This assignment was designed to provide a system for decision making on lifestyle related situations. It entailed reading and completing the exercises in an article by Le Boeuf (1980). The material and exercises are outlined as follows:

1.) A success cycle and failure cycle was presented outlining the impact of achievement and immobilization on one's confidence.

2.) Six excuses for immobilization were described.

3.) The subjects answered the question, "Who Am I", ten times on ten index cards. The cards were rank ordered and the following four questions were answered on each card:
   a.) What do these cards tell you about this person?
   b.) What things are most important to her?
   c.) What types of things would this person enjoy doing with her life that she isn't doing?
   d.) How would you recommend that this person spend her life if she only had six months to live?

4.) Six new index cards were labeled as follows:
   a.) Career goals
   b.) Personal relationship goals
   c.) Recreational goals
   d.) Personal growth goals
   e.) Material goals
   f.) Prestige goals
   Goals were indicated in each of the six areas with the two most important goals on each card checked.

5.) Ten steps to realizing goals were enumerated.

6.) The article concluded with a 12-step, action-planning exercise.

Appendix E

VOCATIONAL RATING SCALE

Age_____

Sex_____

Education_____

The statements in this booklet are to help you describe yourself in relation to the world of work. Please respond to each of the items as if you were describing yourself to yourself. Do not omit any items.

Rate each statement in terms of how true it is for you right now. In making your ratings, use the following scale:

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

After each statement in the booklet, circle the number corresponding to the most appropriate response.

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

1.	I think I'm at the same point as most other people my age in terms of planning a future career.	1 2 3 4 5
2.	I just can't make up my mind what type of work I'm cut out for.	1 2 3 4 5
3.	My past work experiences have taught me a lot about myself.	1 2 3 4 5
4.	I'm really not sure of my occupational interests.	1 2 3 4 5
5.	I know myself well enough to know what kind of job fits me.	1 2 3 4 5
6.	I'm not sure of what abilities I have that I can build a career around.	1 2 3 4 5
7.	I have a clear idea of my own needs and desires with respect to a career.	1 2 3 4 5
8.	I'm not certain about what type of job environment I'd really be happy in.	1 2 3 4 5
9.	I know my own values well enough to make a career decision right now.	1 2 3 4 5
10.	I just can't put my finger on the best way to describe myself.	1 2 3 4 5
11.	I know pretty much what I'm looking for in a college major and a career.	1 2 3 4 5
12.	If somebody was to describe me in terms of my personality, interests, etc., I'd have trouble deciding if the description was accurate or not.	1 2 3 4 5
13.	I haven't got the faintest idea what type of job (or college major) I'm looking for.	1 2 3 4 5
14.	On the basis of my past experience, I have a real clear picture of what kind of person I am.	1 2 3 4 5
15.	With respect to the kinds of things which would be important for a career, I don't know where my abilities lie.	1 2 3 4 5

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

16.	I'm very aware of my own values and how they will influence my choice of a career.	1 2 3 4 5
17.	My weak point in this area is that I just don't know myself well enough yet to be able to make a good career decision.	1 2 3 4 5
18.	I feel confident that my career plans match my personality, interests, etc.	1 2 3 4 5
19.	If I had a clearer idea of what I'm like and what I want, I'd be able to make a decision about a major or a career.	1 2 3 4 5
20.	I just don't know if I have the traits that some lines of work require.	1 2 3 4 5
21.	I have a real clear picture of my work-related attributes and characteristics.	1 2 3 4 5
22.	If someone asked me to describe my vocational strengths, I wouldn't know where to start.	1 2 3 4 5
23.	If I was told that my requirement in a job was security, I wouldn't know for sure how accurate that was.	1 2 3 4 5
24.	I've had a lot of different work experiences and I've learned what I need and want in a career.	1 2 3 4 5
25.	I really don't know myself as well as most other people my age.	1 2 3 4 5
26.	I am certain that my knowledge of my own interests, abilities, etc., is accurate.	1 2 3 4 5
27.	I have only a foggy idea of what I'm interested in.	1 2 3 4 5
28.	I can easily think of five adjectives which I am certain would describe my most important work-related characteristics.	1 2 3 4 5
29.	I don't know my values with respect to careers as well as I would like to.	1 2 3 4 5

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

30.	I can easily name three types of occupations in which I would feel satisfied.	1 2 3 4 5
31.	I have just a hazy notion of what "payoffs" or rewards I'm looking for in a career.	1 2 3 4 5
32.	I am as certain of what I'm like and what I have to offer to the world of work as anybody else my age.	1 2 3 4 5
33.	There are several occupations in which I know I would not fit.	1 2 3 4 5
34.	I don't know if I have the right personality for the kind of work I'm considering.	1 2 3 4 5
35.	I would have some problems answering the question "What sort of person are you?"	1 2 3 4 5
36.	If I had to choose between a business job and a people-helping job, I would be able to decide very easily.	1 2 3 4 5
37.	I honestly feel that I don't need any counseling in making my future carrer plans.	1 2 3 4 5
38.	I can't make up my mind whether I have the "drive" necessary to go to graduate or professional school.	1 2 3 4 5
39.	I know enough about my interests and abilities to be able to predict what career I will be in 5 years from now.	1 2 3 4 5
40.	When it comes to choosing a college major or an eventual career, I'm really up in the air.	1 2 3 4 5