

AN ABSTRACT OF THE THESIS OF

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Title: CHANGES IN MEASURED SELF-ACTUALIZATION AS INFLUENCED BY A
GROUP COUNSELING PROCEDURE

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Abstract approved: Dr. Denis Baron

The problem of the study was to determine whether university students enrolled in a pre-service teacher training course and exposed to a group counseling procedure having as its major emphasis education in the affective domain could demonstrate a significant change in self-actualization when compared with similarly enrolled students who had not been exposed to the procedure. The investigation was designed to test the following hypotheses:

1. There will be a significant change in self-actualization in the group exposed to a group counseling procedure. The groups not exposed to a group counseling procedure will not evidence a change in self-actualization.
2. There will be a significant difference in growth toward self-actualization between the group exposed to a group counseling procedure and the groups not exposed to the procedure.
3. The posttest mean of the group exposed to a group counseling procedure will be similar to the mean of a clinically judged self-actualized sample. The groups not exposed to a group counseling procedure will not evidence posttest means similar to the mean of a clinically judged self-actualized sample.

The sample of the study was selected from undergraduate and graduates in Oregon State University registered during the 1970 Winter Term for

the nine class sections of Educational Psychology. The sample consisted of 103 students assigned to two class sections of the investigator and to one class section of another instructor. Student placement in the classes was determined by the computer assisted registration procedure. The investigator was the facilitator in the experimental group (Group I) of 30 students (12 male and 18 female) and one control group (Group II) of 43 students (17 male and 26 female). Another instructor was the facilitator in the other control group (Group III) of 30 students (10 male and 20 female).

All sections of Educational Psychology were coordinated under a special grant titled, "Student Centered Educational Psychology: An Experiential Approach." The control groups received exposure to self-directed learning in and out of the class sectional meetings. The experimental group differed only in the class sectional meetings where they were exposed to experiential learning exercises. The class sectional meetings were two hours weekly for all three groups over a period of nine weeks. The experiential learning exercises were detailed for ease of replication.

The Personal Orientation Inventory (POI) was the instrument utilized for the measurement of growth toward self-actualization or positive mental health. The instrument was administered under pre and posttest conditions to all three groups. The pre-posttest gains on the Inner Directed (I) Scale were utilized for the testing of the three major hypotheses by means of one-tailed and two-tailed t tests. The .05 level of confidence was selected as the acceptable level of statistical significance.

Findings for the three hypotheses revealed there was an increase in self-actualization for the experimental and two control groups which was significant at the .001 level for all three groups; there was no significant difference in growth toward self-actualization between the experimental and two control groups; and the pre-test means were similar to a normal sample for all three groups while the experimental and one control group (Group II) showed posttest means similar to a clinically judged self-actualized sample.

In the experimental group growth producing effects were chosen by a facilitator with the intent of providing experiences in the affective domain which would result in growth toward self-actualization for college students in a pre-service teacher training course. In the two control groups college students in a pre-service teacher training course were given the opportunity to direct their own learning and chose experiences which resulted in their growth toward self-actualization. The effectiveness in terms of growth toward self-actualization of the two methods seems to have been demonstrated. Although differential effects relative to the hypotheses were not generally indicated, some differences appeared which were related to sex, tutoring, and to growth toward a level of clinically judged self-actualized status in the case of the experimental group.

Changes in Measured Self-Actualization as Influenced
By a Group Counseling Procedure

by

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CHANGES IN MEASURED SELF-ACTUALIZATION AS INFLUENCED BY A GROUP COUNSELING PROCEDURE

CHAPTER I

INTRODUCTION

A new focus of one branch of psychology is the self-actualizing person - a person who is more fully functioning and lives a more enriched life than does the average person. Group counseling procedures are affective experiences which propose to provide growth toward self-actualization. These procedures can be made available to students in a university setting.

The goal of education - the self-actualizing person - was expressed for humanistic psychology by Maslow (1964), one of the foremost researchers in the humanistic movement who popularized the term self-actualization:

... from the point of view of the ultimate goals of education according to the new third psychology, the far goal of education - as of psychotherapy, of family life, of work, of society, of life itself - is to aid the person to grow to fullest humanness, to the greatest fulfillment and actualization of his highest potentials, to his greatest possible stature. In a word, it should help him to become the best he is capable of becoming, to become actually what he deeply is potentially (p. 49).

In 1964 Maslow commented about the goals and purposes of contemporary education:

The most charitable thing we can say about this state of affairs is that American education is conflicted and confused about its far goals and purposes (p. 48).

He further emphasized the most controversial and neglected difference from preceding educational practice, ". . . education for all the human capacities, not only the cognitive ones (p. 50)." From his research

(1954) with historical and contemporary individuals he discovered that while self-actualization is actualization of a self and no two selves are altogether alike there is a commonality in that they are psychologically healthy. Maslow (1962) further stated that there were people living in the United States who had grown far beyond what psychology had heretofore described:

Self-actualizing people, those who have come to a high level of maturation, health, and self-fulfillment, have so much to teach us that sometimes they seem almost like a different breed of human beings (p. 67).

While Maslow was studying and describing the characteristics of self-actualizing people who had lived much of their lives and were visibly successful, Lewin (Bradford, Gibb, and Benne, 1964) and Rogers (1970) began focusing upon planned small group experiences. These experiences were in human relations skills, personal growth, and the development and improvement of interpersonal communication and relationships so as to provide educational experience in an educational institution to help students grow toward self-actualization.

The small group experience, i.e., group counseling, has grown in theory and practice (Burton, 1969) and in its broadest sense has developed into an instructional aid for education with a focus on the affective domain. Egan (1970) has commented about the multiplicity of names and the common thread in the small group experience:

... a small group experience that has many names - a basic encounter group, a laboratory in interpersonal relations, sensitivity training, a basic human-relations laboratory, or an interpersonal-growth-oriented T-group. Whatever the name, all such experiences, together with group psychotherapy and group counseling, have this in common: the participants come together, most often under the "direction" of some kind of leader or facilitator, in order to grow in interpersonal effectiveness through the group experience (Preface).

Egan placed the small group experience in its proper educational perspective:

While the spread of the encounter-group phenomenon in contemporary society is striking, no one has yet scientifically documented the reasons for it. Undoubtedly, the reasons are multiple. One disturbing reason is the general failure of education as we know it in the United States to be a vehicle of putting people in growthful contact with one another. Fuller interpersonal living is not ordinarily one of the fruits of eight, twelve, or sixteen years of formal education. Therefore, encounter groups as we know them are to this extent remedial, and they will remain remedial until education grows up emotionally.

The encounter group is not life, nor is it a viable substitute for it, but it can be an aid to more effective living. When the present movement loses its novelty and sheds its excesses, when participants stop expecting to find salvation in sensitivity training, and when adversaries stop condemning laboratory experiences as brainwashing or psychological rape, then perhaps the encounter group will be seen for what it is - just one (though a powerful one) of the instruments in the armamentarium of human growth experiences (Preface).

Statement of the Problem

The problem of the study was to determine whether university students enrolled in a pre-service teacher training course and exposed to a group counseling procedure having as its major emphasis education in the affective domain could demonstrate a significant change in self-actualization when compared with similarly enrolled students who had not been exposed to the procedure.

This investigation was designed to test the following hypotheses:

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Significance of the Problem

In 1957 Jacob published Changing Values in College which exposed the lack of effectiveness of educational curricula in bringing about change in the attitudes and values of college students. His research conducted between 1947 and 1956 on four instruments and over a 25 year period on another showed almost no evidence that educational change in the affective domain was effected. This research revealed the glaring omission of affective experiences which allow a student to learn and grow and subsequently to change his attitudes, beliefs, and personality.

The research of Tyler (1934, 1951), Furst (1958), Dressel (1958), and others disproved the widely held assumption that students learning the information objectives of a course would, as a direct consequence, develop the problem-solving objectives in that course. From the lack of affective objectives at the college level it could be assumed there was a belief that if cognitive objectives were developed there would be a corresponding development of appropriate affective behaviors. Jacob's (1957) research seems to negate this assumption with the resulting suggestion that affective behaviors develop from appropriate affective learning experiences much the same as cognitive behaviors develop from appropriate cognitive learning experiences.

In 1948 a group of college examiners formulated the idea of building a taxonomy of educational objectives for classification of the goals of our educational system in terms of thoughts, feelings, and actions. This taxonomy was to include the cognitive, affective and psychomotor domains. The delineation of the affective domain was completed by Krathwohl, Bloom, and Masia (1964). The objectives were described as emphasizing a feeling tone, an emotion, or a degree of acceptance or rejection and expressed as interests, attitudes, appreciations, values, and emotional sets. As part of the preparation the history of several major college courses at the general education level was studied. This revealed the original statement of objectives had given as much emphasis to affective objectives as to cognitive objectives. However, over a ten to twenty year period there was a rapid dropping of the affective objectives from the statement of the course and an almost complete disappearance of appraisal of student growth in this domain.

The lack of positive affective experiences at the college level seems to have a direct relationship to student suicides and dropouts. Camus (1955) has stated:

There is but one truly serious philosophical problem and that is suicide. Judging whether life is or is not worth living amounts to answering the fundamental question of philosophy (p. 3).

The absence of a positive reply is reflected by the conservative yearly figures of 1000 suicides, 9,000 unsuccessful attempts, and 90,000 threats to do so ("Suicide and Student Stress", 1966). The student suicide rate was found to be 50 percent higher than that of the general population and suicide proved to be the second greatest cause of death among college students.

In 1940 the enrollment in higher education was 14 percent of the college age population from which six percent graduated. In 1970 the enrollment in higher education was 40 percent of the college age population from which 16 percent graduated (Silberman, 1970). While the increase in college enrollment from 1940 to 1970 was substantial, the student dropout rate also increased by 2.8 percent. Since higher education has been quite selective by granting admission to the academically able student, the almost absolute emphasis on cognitive learning seems to have brought about a debilitating stress on the student which was not really intended.

The public schools, reflecting the influence from higher education, have not escaped a similar impact even though they have shown some improvement over the college population figures. Suicide was the third ranking cause of death among high school students and the dropout rate was 25 percent of those eligible to graduate in 1970, improving from the 62 percent dropout rate in 1940.

Education in the cognitive domain is impressive considering that the total sum of what man knows doubled every 50 years before the year 1800, on the average doubled every ten years from 1800-1960, doubled again between 1960-1967, and likely will double every five years for the next 15 to 20 years (Theodore Roosevelt Junior High School, 1969). That this narrow emphasis on the cognitive domain is not adequate for teacher preparation was made clear by Silberman (1970) as a result of his massive three year study of education:

The question, then, is not whether teachers should receive special preparation for teaching, but what kind of preparation they should receive. That the preparation should be

substantially different from what they now receive seems hardly open to debate; there is probably no aspect of contemporary education on which there is greater unanimity of opinion than that teacher education needs a vast overhaul. Virtually everyone is dissatisfied with the current state of teacher education: the students being educated, the teachers in the field, the principals, superintendents, and school board members who hire them, the liberal arts faculties, and the lay critics of education (p. 413).

The kind of preparation needed but which has not been available for teachers is stated by Otto (1970):

Nowhere in our educational system is a systematic and continuous effort made at any level to help the student to know himself - to give him insight into the workings of his personality or his mind. This omission to provide the growing personality with self-understanding represents education's most serious failure. It undercuts the student's efforts at self-discovery and self-realization and prevents him from achieving wholeness of being and the optimum functioning of which he is potentially capable. The precept "know thyself", which should be one of the key principles and achievements of education, is almost completely ignored (p. 49).

Realizing the importance of the teacher as a self-actualizing person, Jersild (1955) states that the teacher's understanding and acceptance of himself is the most important requirement in any effort he makes to help students to know themselves and to gain healthy attitudes of self-acceptance. Fox (1965) states that greatness in teachers lies, not in extraordinary methods of teaching, but in capacity for self-examination and growth, that the essence of the educational process is student self-actualization, and that the truly great teacher personifies this concept. Porter (1964) believes that the process of becoming a teacher is basically a process of individual self-actualization with all that this implies in terms of development of self, motivation to become a teacher, self-concept, purpose, perception of experience.

Shaffer (1964) seems to express it well for those interested in a humanistic approach to education:

If the main goal of education is individual growth and development, then one of the best ways to teach this to future teachers is for them to experience its application in their own lives. If we continue to prepare future teachers as if their preparation consists primarily of learning isolated facts and skills, then they will view their own work as imparting them (p. 26).

Group counseling has been seen as an instructional aid through which the teacher-in-training or the experienced teacher in in-service training can experience his own growth and development toward self-actualization. The professional literature has been filled with recommendations for this approach in teacher training. Some authors (Berman, 1953, 1954; Delp, 1963; Khleif, 1965; Peck, 1964; Pinson, 1965; Samler, 1965; Withall, 1964) suggested it for mental hygiene education. Teacher educators (Biber, 1959; Combs, 1965; Jersild, 1952, 1955; Nass, 1959; Strickler, 1957; Symonds, 1955) suggested it for self-exploration, self-insight, and self-understanding. The recommendations have resulted in little action in the teacher education training programs according to Shaw and Wursten (1965) from their review of the literature over a ten year period, "In spite of such recommendations, research in this area is very nearly non-existent (p. 31)."

Group counseling has come to be an important part of training for the counselor and he extends its application to the public schools and higher education. Meeks (1968), a counselor educator, aptly illustrates the implications for growth toward self-actualization through the utilization of group counseling for improving human relations:

What would happen in one generation if every child had the benefit of group counseling sessions devoted to learning how to listen to the other fellow, and trying to understand how he feels about a situation (p. 115)?

Though there are a diversity of leader styles (Rogers, 1970) in the various group experiences most groups seem to share a general view of man that has grown out of the existentialist-humanist tradition:

Encounter group practitioners believe that man functions at a small fraction of his potential and that methods which remove blockage and release his potential enable him to integrate at substantially higher levels of functioning (Lubin and Eddy, 1970).

Gibb and Gibb (1968) stated:

People can grow. Man's potential for growth is vast and, as yet, relatively unexplored. In his inner depth - in his essential reality - man is capable of giving and receiving warmth, love, and trust. He is moving toward interdependence and confrontation. Growth is a kind of freeing of this inner self of these internal processes - an emergence and fulfillment of an unguessed inner potential. Growth is a process of fulfilling, realizing, emerging, and becoming (p. 101).

The significance of the investigation of this problem was expressed by Jourard (1966),

If man functions typically in the 'reduced' state, but has the potentiality for transcending it, then we are called upon to explore the conditions under which such potentiality can be fulfilled (p. 351).

Background and Theoretical Framework

As each society attempted to transcend itself, there necessarily emerged a new view of man and a new model for his education. Friedman (1968) emphasized this:

Every society has an image of man it wishes to educate in its young and the teacher properly represents the society in this task. Yet he does not fulfill his task through imposing an image but through confronting his student with it and through allowing him to develop in free dialogue with it. Nor will the image the student develops ever be identical with that of the teacher or of the society he represents. It can at best be a creative response to that image.

As man explored the question, "What Can Man Become?", he expressed dissatisfaction with the contemporary view of man, constructed or discovered another, and attended to its actualization. (Humanistic psychology and humanistically oriented behavioral scientists and philosophers have left the old and are defining the new. BURGENTAL (1967) explained:

In brief, we can say that where behavioristic psychology has taken as its goal the attainment of the ability to describe, to predict, and to control objects (animals: human, and subhuman), humanistic psychology seeks to so describe men and their experiences that they will be better able to predict and control their own experiences (and thus, implicitly, to resist the control of others) (p. 11).

The educator has become involved in the expanding view of man and his education toward freedom, responsibility, intellectual and emotional growth to the maximum utilization of his potentials. Gardner (1961), the former Secretary of Health, Education, and Welfare stated:

The chief instrument we have devised to further the ideal of individual fulfillment is the educational system ... Education in the formal sense is only part of society's larger task of abetting the individual's intellectual, emotional and moral growth. What we must reach for is a conception of perpetual self-discovery, perpetual reshaping to realize one's best self, to be the person one could be. This is a conception which far exceeds formal education in scope. It includes not only the intellect but the emotions, character and personality. It involves not only the surface, but deeper layers of thought and action. It involves adaptability, creativeness and vitality (p. 136).

Intellectual and emotional growth are recognized as not being mutually exclusive, as stated by Beck (1950), "We cannot know without the intellect; we do not know until we experience with the emotions (p. 106)". However, education has not provided equal learning opportunities for both, for which Allen (1971) is critical:

We are still very much true believers in the old myth that rationality is good and that the body and the emotions are inherently dangerous and must at all times be under strict control of the mind. By divorcing man's rationality from the rest of his experience we hope to educate it better, having isolated it in a pure state. Education proceeds best when it does not have to contend with the student's emotional needs.

The plain physiological and psychological fact is that rationality can no more be divorced from the rest of the human body than can the brain itself. Pure reason can exist only when the person's other needs have been satisfied to a point where they will not interfere with long periods of rational activity.

We would be better off to seek a balance among the competing needs of any student: sheer hunger, the need to void, to move around, to be alone, to receive attention, to be affectionate, to be silly and to communicate with friends, alongside the need to know.

A humanistic approach to the goal of education would be to describe man who had achieved high levels of optimum development and then to describe the educational experiences needed for him to so emerge. Maslow (1954) was the first psychologist to study and describe this healthy personality whom he called the self-actualizing person. If this person chose to become a teacher, Maslow represented him as:

To take the teacher-student relationship as a specific paradigm, our teacher subjects behaved in a very unneurotic way simply by interpreting the whole situation differently, e.g., as a pleasant collaboration rather than as a clash of wills, of authority, or dignity, etc.; the replacement of artificial dignity - that is easily and inevitably threatened - with the natural simplicity that is not easily threatened; the giving up of the attempt to be omniscient and omnipotent; the absence of student-threatening authoritarianism; the refusal to regard the students as competing with each other or with the teacher; the refusal to assume the professor stereotype and the insistence on remaining as realistically human as, say, a plumber or a carpenter; all of these created a classroom atmosphere in which suspicion, wariness, defensiveness, hostility, and anxiety disappeared (p. 231).

The planned educational experiences in a school system which emphasize balanced cognitive, affective, and behavioral action are described by Rogers (1969) as self-directed, significant or experiential learning:

1. It has a quality of personal involvement - the whole person in both his feeling and cognitive aspects being in the learning event.
2. It is self-initiated - even when the impetus or stimulus comes from the outside, the sense of discovery, of reaching out, of grasping and comprehending, comes from within.
3. It is pervasive - it makes a difference in the behavior, the attitudes, perhaps even the personality of the learner.
4. It is evaluated by the learner - he knows whether it is meeting his need, whether it leads toward what he wants to know, whether it illuminates the dark area of ignorance he is experiencing. The locus of evaluation, we might say, resides definitely in the learner.
5. Its essence is meaning - when such learning takes place the element of meaning to the learner is built into the whole experience (p. 5).

Rogers' newer approach to education is based on the following basic theoretical assumptions:

1. Human beings have a natural potentiality for learning.
2. Significant learning takes place when the subject matter is perceived by the student as having relevance for his own purposes.
3. Learning which involves a change in self organization - in the perception of oneself - is threatening and tends to be resisted.
4. Those learnings which are threatening to the self are more easily perceived and assimilated when external threats are at a minimum.
5. When threat to the self is low, experience can be perceived in differentiated fashion and learning can proceed.
6. Much significant learning is acquired through doing.

8. Self-initiated learning which involves the whole person of the learner - feelings as well as intellect - is the most lasting and pervasive.
9. Independence, creativity, and self-reliance are all facilitated when self-criticism and self-evaluation are basic and evaluation by others is of secondary importance.
10. The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and incorporation into oneself of the process of change (pp. 157-164).

For Rogers the "teacher" has become a facilitator of learning and his relationship with the students - the learners - and with the facilitation of learning was summarized:

1. The facilitator has much to do with setting the initial mood or climate of the group or class experience.
2. The facilitator helps to elicit and clarify the purposes of the individuals in the class as well as the more general purposes of the group.
3. He relies upon the desire of each student to implement those purposes which have meaning for him, as the motivational force behind significant learning.
4. He endeavors to organize and make easily available the widest possible range of resources for learning.
5. He regards himself as a flexible resource to be utilized by the group.
6. In responding to expressions in the classroom group, he accepts both the intellectual content and the emotionalized attitudes, endeavoring to give each aspect the approximate degree of emphasis which it has for the individual or the group.
7. As the acceptant classroom climate becomes established, the facilitator is able increasingly to become a participant learner, a member of the group, expressing his views as those of one individual only.
8. He takes the initiative in sharing himself with the group - his feelings as well as his thoughts - in ways which do not demand nor impose but represent simply a personal sharing which students may take or leave.

9. Throughout the classroom experience, he remains alert to the expressions indicative of deep or strong feelings.
10. In his functioning as a facilitator of learning, the leader endeavors to recognize and accept his own limitations (pp. 164-166).

There are three important attitudes of the facilitator which promote learning if developed by him to high levels of effectiveness:

1. A transparent realness, a willingness to be a person, to be and live the feelings and thoughts of the moment.
2. A prizing, a caring, a trust and respect for the learner.
3. A sensitive and accurate empathic listening (p. 126).

Rogers has stated that the goal of education or of therapy is the fully functioning person, his equivalent for the self-actualizing person of Maslow. He has advocated the small group experience, the basic encounter group to use his term, for the training of facilitators of learning for the newer goals in education as well as for personal growth toward the fully functioning person. While acknowledging that in the area of small group experience practice has far outrun both theory and research, he has stated the hypotheses which underlie the process of the basic encounter group:

1. A facilitator can develop, in a group which meets intensively, a psychological climate of safety in which freedom of expression and reduction of defensiveness gradually occur.
2. In such a psychological climate, many of the immediate feeling reactions of each member toward others, and toward himself, tend to be expressed.
3. A climate of mutual trust develops out of this mutual freedom to express real feelings, positive and negative. Each member moves toward greater acceptance of his total being - his emotional, intellectual, and physical being, as it is.
4. With individuals less inhibited by defensive rigidity, the possibility of change - in personal attitudes and behavior, in teaching methods, in administrative methods - become less threatening.

5. With a reduction of defensive rigidity, individuals can hear each other, can learn from each other, to a greater extent.
6. There is a development of feedback from one person to another, such that each individual learns how he appears to others, and what impact he has in interpersonal relationships.
7. As individuals hear each other more accurately, an organization tends to become a relationship of persons with common goals, rather than a formal hierarchical structure.
8. With this greater freedom and improved communication, new ideas, new concepts, new directions, emerge. Innovation becomes a desirable rather than a threatening possibility.
9. These learnings in the group experiences tend to carry over, temporarily or more permanently, into the relationships with peers, students, subordinates, and even to superiors, following the group experience (pp. 306-307).

Client-centered therapy founded by Rogers (1951, 1961) was the theoretical framework from which he developed his student-centered teaching and basic encounter group. Both were developed within the tradition of humanistic psychology to provide growth experiences toward self-actualization and were the framework for this investigation with the small group experience being the variable of study.

The Purpose of the Study

The purpose of this study is to add data to the growing number of studies in higher education that have indicated enhancement of growth toward self-actualization through a small group experience. A further purpose is to encourage universities, schools of teacher education in particular, to include a similar experience, a similar educational aid in their curricula.

Assumptions of the Study

The following assumptions are recognized in this investigation:

1. The inventory used in this study measures what it proposes to measure, a valid construct of psychological health.
2. From humanistic psychology that man is constantly striving toward the highest level of human functioning of which he is capable or toward self-actualization.
3. Attitudinal changes toward growth on a measure of psychological health indicate that the experience results in a corresponding behavioral change.
4. The students in this study are a representative sample of the other students enrolled in teacher training and in this university in general.

Limitations of the Study

The following limitations are recognized in this investigation:

1. Human behavior has been influenced by the research process itself.
2. Human behavior has been influenced by the interaction of the individual with every changing element in his environment and this study involved two facilitators of learning with different training backgrounds in the two control groups.
3. Research in the behavioral sciences has lagged behind research in the physical sciences resulting in a corresponding lag in satisfactory measuring instruments.
4. The facilitator of learning, the investigator, was the same for the experimental and one of the control groups, therefore, an unconscious experimenter bias may have influenced the study.
5. Time has been an important factor in affective growth and nine small group meetings of two hours each over ten weeks may have had a limiting influence on the study.
6. The results of this study may be limited to populations similar to the one of this study or to this one required course in teacher education in this university.
7. The facilitator of learning, the investigator, may have adversely influenced the growth experiences in the small group experience.

CHAPTER II

REVIEW OF RELATED LITERATURE

New models for human development are being constructed within the framework of humanistic psychology. Gale (1969) explained it:

Currently, there is a new breakthrough in psychological thinking, adding a 'third force' to the existing behavioristic and psychoanalytic theories of behavior that places man as the central concept of psychological study. This orientation, with roots in philosophy, concedes that man is the process that supercedes the sum of his part functions, implying that a psychology of human beings is a psychology of noninterchangeable units. This approach to human behavior emphasizes the free, responsible, creative, and autonomous nature of man, who is constantly striving to discover himself and his relation to the world around him as he works toward becoming the fully functioning person with the self-actualization of his unique capacities and potentialities (p. 6).

There are a growing number of investigators who are introducing the new model for human development. The models of three of the investigators - Maslow, Rogers, and Shostrom - are briefly described below.

Maslow's Self-Actualizing Person

Maslow (1954) discovered the following characteristics present in the personalities of the self-actualizing people he studied:

1. A more efficient perception of reality and more comfortable relations with it
2. Acceptance of self, others, and their own human nature
3. Spontaneity
4. Problem-centered rather than self-centered
5. The quality of detachment; the need for privacy
6. Autonomy; independence of culture and environment

7. Continued freshness of appreciation
8. The mystic experience; the oceanic feeling
9. Gemeinschaftsgefühl (roughly, it means an affection for mankind)
10. Deeper and more profound interpersonal relations
11. A democratic character structure
12. Discrimination between means and ends
13. Philosophical, unhostile sense of humor
14. Creativeness
15. Resistance to enculturation
16. The imperfections of self-actualizing people--they show many of the lesser human failings
17. Values and self-actualization - a firm foundation for a value system is furnished to the self-actualizer by his philosophic acceptance of the nature of his self, of human nature, of much of social life, and of nature and physical reality
18. A resolution of dichotomies in self-actualization (pp. 203-234)

Rogers' Fully Functioning Person

Rogers (1961, 1969) has described his fully functioning person as someone who doesn't exist now, but rather is the end-point of personal growth. He has stated his version of the goal in its "pure" form and observes that individuals are seen as moving in this direction from the best of experiences in education, therapy, family, and group relationships. He sees the fully functioning person as possessing three major facets:

1. The person would be open to his experience
2. The person would live in an existential fashion
3. The person would find his organism a trustworthy means of arriving at the most satisfying behavior in each existential situation.

Rogers sees this person functioning freely in all the fullness of his organismic potentialities; one who is dependable in being realistic, self-enhancing, socialized, and appropriate in his behavior; a creative person, whose specific formings of behavior are not easily predictable, but who is dependable; a person who is everchanging, ever developing, always discovering himself and the newness in himself in each succeeding moment of time.

Shostrom's Actualizer

Shostrom (1967) described his actualizer as the opposite of the manipulator and as a person who appreciates himself and his fellow man as persons or subjects with unique potential -- an expresser of his actual self. He states that the actualizer's philosophy of life is marked by four characteristics: honesty, awareness, freedom, and trust. The change from manipulation to actualization he sees in general as being on a continuum from deadness and deliberateness to aliveness and spontaneity. Shostrom described the four fundamental characteristics of his actualizer as:

1. Honesty (Transparency, Genuineness, Authenticity). The actualizer is able honestly to be his feelings, whatever they may be. He is characterized by candidness, expression, and genuinely being himself.
2. Awareness (Responsiveness, Aliveness, Interest). The actualizer fully looks and listens to himself and others. He is fully aware of nature, art, music, and the other real dimensions of living.
3. Freedom (Spontaneity, Openness). The actualizer is spontaneous. He has the freedom to be and express his potentials. He is master of his life, a subject and not a puppet or object.
4. Trust (Faith, Belief). The actualizer has a deep trust in himself and others to relate to and cope with life in the here and now (pp. 23-24).

In summarizing the emerging new concept of man and his potentialities Jahoda (1958) has stated that most definitions of positive mental health include one or more of the following six aspects of man:

1. The attitudes shown by a person toward his own self.
2. The style and degree of his own self-actualization.
3. The degree of personal integration achieved by the individual.
4. The degree of autonomy achieved by the person.
5. The adequacy of the person's perception of reality.
6. The degree of environmental mastery achieved by the person (pp. 23-24).

Gibb (1971) has identified the effects of human relations training in terms of six frequently stated aims. These six most frequently recurring objectives are closely correlated with the listed characteristics of positive mental health (Jahoda, 1958). The six variables of training which have an explicit focus upon behavior change are:

1. Sensitivity. Training is aimed at inducing greater sensitivity to self, to the feelings and perceptions of other people, and to the general interpersonal environment. Sensitivity is seen as an input process involving greater awareness of the feelings and perceptions of others. It also has an output component, aspects of which are described variously as availability of self, transparency, openness, authenticity, or spontaneity.
2. Managing feelings. Trainers speak of such outcomes as awareness of one's own feelings, acceptance by oneself of the feeling component in one's own actions and speech ('owning' one's feelings), consonance between feelings and behavior, clarity of expression of feelings, and integration of emotionality into various life processes.
3. Managing motivations. The training literature refers to such hoped-for motivational outcomes as self-actualization, awareness of one's own motives, clear communication of one's own motives to others, self-determination, commitment, greater energy level, inner-directedness, and becoming.

4. Functional attitudes toward self. Practitioners mention acceptance of self, self-esteem, congruity of actual self and ideal self, and feelings of confidence as potential positive outcomes of training.
5. Functional attitudes toward others. Training is thought to produce such changes in attitudes as decreased authoritarianism, greater acceptance of others, reduced prejudice, reduced regard for structure and control, and attitudes commensurate with interdependence theories of management.
6. Interdependent behavior. Effective behavior is described variously as interpersonal competence, task effectiveness, teamwork, being a "good group member", democratic leadership, problem-solving effectiveness, or interdependence (pp. 841-842).

The investigations of Dandes, Murray, and Smith which follow are representative of studies which have demonstrated the efficacy of the concept of self-actualization. These researchers separated experienced teachers into self-actualizing and non-self-actualizing groups through utilization of the Personal Orientation Inventory and other measuring instruments. The self-actualizing and non-self-actualizing teachers differed significantly and were revealed to have different attitudes and values, were perceived differently by their students, and differed in perception of their ability to encourage self-directed learning or self-actualization education in their classrooms.

Dandes (1964, 1966) investigated the relationship between measured psychological health and certain attitudes and values of teachers. The psychological health, attitudes and values related to effective education in an open, democratic society were within the framework of growth theories of personality or third force or humanistic psychology. The four instruments utilized and the teacher attitudes and values measured were the Minnesota Teacher Attitude Inventory for the dimension of permissiveness or warmth or student-centeredness; the California F-Scale,

Form 40 and 45 for authoritarianism; the Dogmatism Scale, Form E for openness-closedness of belief systems; and An Inventory of Opinions on Educational Issues, L-C Scale, for liberalism-conservatism of educational viewpoints. The Personal Orientation Inventory was utilized to measure psychological health or self-actualization.

The subjects were 128 elementary and secondary teachers from two school systems in central New York State who completed the measuring instruments. On the basis of the statistical analysis presented in confidence intervals or probability levels all hypotheses were supported and Dandes concluded that psychological health is associated with permissiveness, empathy, and student-centeredness. The greater the measured psychological health of the teacher, the more permissive and student-centered he tends to be in his attitudes. Psychological health is associated with liberalistic educational viewpoints; the greater the measured psychological health of the teacher, the more liberal his educational viewpoints will be. Psychological health is associated with the absence of authoritarianism; the greater the measured psychological health of the teacher, the less authoritarian he tends to be. Psychological health is associated with openness of belief systems; the greater the measured psychological health of the teacher, the more he tends to be open-minded. From his findings Dandes hypothesized that psychologically healthy teachers are better able to encourage the growth of students toward psychological health or self-actualization and that this growth would enable students to become more effective, responsible, and "free" members of their society.

Dandes recommends that those concerned with increasing the effectiveness of teachers must consider modifying the college curriculum to include experiences which will aid the potential teacher to grow and develop psychologically, to actualize himself more fully. As a means to this end he suggests group counseling, human relations laboratory, individual counseling service, and an overall growth orientation focused upon the college structure with teaching and administrative procedures modified to allow students the freedom to grow and develop psychologically.

Murray (1968) investigated self-actualization and social values of teachers as related to students' perception of teachers. The teacher personality variable in the classroom was studied within the framework of Maslow's theory of self-actualization. The Personal Orientation Inventory (POI) and the Study of Values were utilized to differentiate among the teachers. The Student Estimate of Teacher Concern was utilized for the students' perception of teachers. The subjects were 261 randomly chosen home economics teachers employed in Pennsylvania during 1967-68. For hypothesis testing a total of 20 teachers were selected representing the extreme scores of self-actualizing and non-self-actualizing teachers on the Time Competent and Inner-Directed Scales of the POI and the social value scale of the Study of Values. The scores of the self-actualizing teachers were 19.6 for Time Competent and 99.8 for Inner-Directed. For the non-self-actualizing teachers scores were 12.4 for Time Competent and 58.4 for Inner-Directed. These scores when compared with the clinically judged sample did differentiate between the self-actualized and non-self-actualized teachers.

The t test findings were significant at less than the .0001 level and Murray concluded that self-actualizing teachers were perceived by

their students as more concerned than non-self-actualizing teachers and that teachers with high social values were perceived by their students as more concerned than teachers with low social values. Two other hypotheses were not supported and Murray concluded that self-actualizing and non-self-actualizing teachers do not have significantly different theoretical values but they do differ on other scales of the Study of Values. She found that social values contributed a significantly larger portion of the Student Estimate of Teacher Concern variance than did the level of self-actualization. The factors of teacher age and years of experience were unrelated to the major variables of self-actualization, social values, and student perceptions of teachers.

Smith (1968) investigated the facilitation of student self-directed learning as perceived by teachers with high and low levels of self-actualization and dogmatism. The teacher personality variable in the classroom and the ability of the student to accept responsibility for his own learning were studied within the framework of Maslow's self-actualizing person, and Rogers' self-directed learning. The Personal Orientation Inventory (POI), the Dogmatism Scale, and the Teacher Facilitation of Self-Direction Inventory were the measuring instruments. The subjects were 164 home economic graduates from Pennsylvania State University during 1957-1966 who had a minimum of one year teaching experience. For hypothesis testing a total of 84 teachers were selected representing the highest and lowest quartiles.

All three hypothesis tested as significant at the .01 level when analyzed by correlational analysis and t tests. A total score was utilized for the POI with a score of 97.976 for the upper and 74.707

for the lower quartile which significantly differentiated between the more highly and less self-actualizing teachers. Smith concluded from her study that a significant relationship exists between teacher's levels of self-actualization, degrees of dogmatism, and perception of use of teaching behaviors relevant to the development of student self-directed learning and that these were independent of teachers' years since graduation and years of teaching experience. The more highly self-actualizing teachers perceived themselves as using a significantly greater amount of teaching behaviors which encouraged the development of self-directed learning among students than did the less self-actualizing teachers. This finding was independent of respective years since graduation and years of teaching experience. The more highly self-actualizing teachers were significantly more openminded than the less self-actualizing teachers regardless of the respective years since graduation and years of teaching experience.

The investigations of Groeneveld; Culbert, Clark, and Bobele; Green; Geitgey; and Krafft which follow are representative of studies which have demonstrated positive mental health or self-actualization outcomes from exposure to group counseling or some form of an intensive small group experience.

Groeneveld (1969) investigated the positive experience group encounter and its effect upon self-actualization. He utilized the Personal Orientation Inventory (POI) to measure changes in self-actualization, the Group Involvement Scale, and the Verbal Participation Scale. The I scale of the POI was utilized for testing of two of the hypotheses. His subjects were 76 freshmen and sophomore students from Ball State University registered in a ten week Human Growth and Development course.

They were assigned to three experimental groups totaling 40 students and three control groups totaling 36 students. The experimental group was exposed to positive experience group encounter by the method of sharing positive experiences in intensive small groups. The control group was exposed to a group activity designed to promote an understanding of "self" and others resulting from interpersonal communication utilizing a variety of group activities.

T test results significant at the .001 level revealed that there was a significant change toward self-actualization in both experimental and control groups. The experimental I scale mean score on the pre-test was 77.90 and on the posttest was 86.50. The control group I scale mean score on the pre-test was 80.25 and on the posttest was 86.79.

An analysis of covariance revealed no significant difference in growth toward self-actualization between groups exposed to positive experience encounters and groups exposed to conventional group methods.

An analysis of previous grade point averages as the selected covariate revealed no significant difference in academic performance between groups exposed to positive experience encounters and groups exposed to conventional group methods.

Culbert, Clark, and Bobele (1968) investigated the measures of change toward self-actualization in two sensitivity training groups. They utilized the Personal Orientation Inventory (POI) to measure changes in self-actualization. The subjects were 19 senior and graduate students from the University of California at Los Angeles. They were divided into two groups of 10 and 9 and met for 14 weeks for one 2 hour period per week plus another 2 hour controlled pairing assignment each week to promote authentic interaction and increased self-awareness among the members.

Pre-test means compared to self-actualized, normal, and non-self-actualized samples revealed differences in the two groups with Group I

scores equivalent to the ones produced by a population of self-actualizers and Group II relatively similar to a population of normal adults. Group I showed an I scale pre-test mean score of 89.33 and posttest score of 88.44. Group II showed an I scale pre-test mean score of 79.60 and posttest score of 89.80. Group I posttest results revealed 10 of the 12 scales showed small decreases, 2 of the 12 scales showed small increases, and none of the changes on the 12 scales to be significant. Group II post-test results showed all 12 scales to have increases and four of the scales showed statistically significant changes including the I scale which was significant at the .01 level. The authors concluded that the sensitivity training treatment appeared to bring about increased P01 scale means for a group initially resembling normals and did not disturb the mean scores for a group which initially appeared to be near the self-actualizing level.

A second part of this study concerned with the relationship between increases in members' self-percepts, as measured by the P01 ratings, and increases in self-aware verbal behavior, as measured by the Problem Expression Scale failed to show any directional correlation between the two measures.

Green (1969) investigated expressed behavior changes occurring as a result of exposure to filmed classroom situations and T-group sensitivity training. The study was concerned with determining which of the alternative experiences might affect variables associated with human understanding and self-understanding. Thirteen variables were recorded for each subject on the pre and posttests: two scores from the Personal Orientation Inventory to measure self-actualization, the total positive

score from the Tennessee Self Concept Scale, six scores from the Fundamental Interpersonal Relations Orientation - Behavior, three scores from a Case Study of Barry Black and one score from a test of knowledge of facts and principles. Three groups were randomly selected from students enrolled in Human Development and Education classes at Washington State University. The three groups were composed of 21 students divided into subgroups of 10 and 11 and exposed to the T-group experience; 19 students divided into subgroups of 10 and 9 and exposed to the discussion of filmed classroom experiences; and a control group of 24 students who experienced in-school observation. A questionnaire and a measure of interpersonal relationships were administered four months following the posttest.

No significant differences were revealed between groups on measures of self-concept, interpersonal relations, or subject matter knowledge. The T-group showed a significant positive change on the inner-directed measure of self-actualization and on the remedial score of the Case Study of Barry Black. The control group showed a significant positive change on the remedial and whole scores of the Case Study of Barry Black. The discussion group showed no significant change.

The questionnaire item responses showed the T-group to have perceived significantly greater change than the discussion or control groups in understanding human relationships, self-understanding, sensitivity toward peers and adults, and interpersonal relationships. Both the discussion group and control group perceived greater change than the T-group in understanding school organization. The control group when compared with the T-group perceived significant improvement in understanding children.

Geitgey (1966) investigated some effects of sensitivity training on the performance of students in associate degree programs of nursing education. Her study was related specifically to quality of nursing care, interpersonal relations with patients, teachers, and peers, grades in nursing courses, and attrition rates. Sociometric forms measured interpersonal relations, a questionnaire was provided to patients for evaluation of nursing care, and official records were utilized to measure the quality of nursing care as evaluated by instructors, grades in nursing courses, and the attrition rates. The subjects were 103 students from California junior colleges divided into an experimental group of 39, a volunteer control group of 23, and a control group of 41. The subjects were rated on 289 Patient Response forms, rated by 13 instructors from the three schools, and rated by a total of 405 peers on three occasions. The experimental group experienced sensitivity training for 30 hours within one week prior to the beginning of classes. In addition, follow-up training was provided one day per month for four months during the semester. The volunteer control group received instructions in human relations by the lecture-discussion method for 30 hours within one week prior to the beginning of classes. No additional follow-up instruction was provided since such instruction was presented in the formal course work.

All statistically significant findings were in favor of the experimental group and were at the .05 level. The findings were for the comparisons of patient evaluation of nursing care between the experimental and the volunteer control group; instructor evaluations of nursing care between the experimental and both the volunteer control and control

groups; interpersonal relations with instructors between the experimental and both the volunteer control and control groups; and interpersonal relations with peers between the experimental and both the volunteer control and control groups.

Though not statistically significant, trends in favor of the experimental group were shown in the comparisons of interpersonal relations with patients between the experimental and both the volunteer control and control groups; attrition rates between the experimental and both the volunteer control and control groups; attrition rates between the experimental and both the volunteer control and control groups; and the total grade points accumulated for the experimental over the volunteer control groups.

Krafft (1967) investigated the influence of human relations laboratory training upon the on-the-job perceived behavioral changes of secondary school seminar instructors. The subjects were randomly selected seminar instructors from 17 secondary schools located throughout the United States. The 62 experimental and control subjects were matched and located in each of the schools. They were divided into an experimental group of 32 and a control group of 30. The experimental group was exposed to a ten day human relations laboratory training workshop. The measuring instruments utilized were the Perceived Small Group Seminar Atmosphere and Bunker's categorization system. Predictions of behavioral change were collected on the final day of the laboratory sessions. Six months later one individual interviewed all experimental and control subjects, one randomly selected team or departmental co-worker of each, and the principal of each.

T-tests were utilized with the level of significance set at .025. The findings were statistically significant with the exception of one finding and Krafft concluded that:

1. Laboratory training participants themselves, their peer co-teachers and the respective principals of these same subjects indicate a significant perceived behavioral change as the participants function in the on-the-job situation six months following the workshop.
2. Participants are more willing to share information, are more concerned with putting their ideas across, and find it easier to provide truthful feedback and to express their feelings more.
3. Participants make an increased effort to listen better and with more understanding.
4. Participants are less irritating to others, are easier to deal and talk with; they are more tactful, less commanding and more cooperative.
5. Participants are more willing to take a stand on issues, to experiment and try more new ideas.
6. Participants in laboratory training sessions involve others in group decision-making, let others do more thinking and experimenting and are less likely to dominate a discussion.
7. The behavior of participants is more flexible; they more easily take group roles and make helpful contributions to a group.
8. Participants have increased intellectual understanding of human behavior. They are more analytical of behavior and have a clearer perception of the people with whom they interact.
9. Consciousness of group process, of subcurrents and hidden group agendas and of ability to perceive group roles has increased in participants.
10. Participants are more conscious of and sensitive to the feelings, needs and reactions of others.
11. Participants are more able to tolerate shortcomings of others. They are more considerate of individual differences, more understanding of others' problems.

12. Participants are more willing to accept suggestions; they are less defensive and less arbitrary about their "knowledge" and information.
13. Self-confidence, poise and confidence in leading discussions are factors of increase perceived in participants.
14. Ability to be more at ease and comfortable in groups, to feel more inner security are characteristics of the participants.
15. Participants have greater insight into themselves and into their own roles in groups. They are improved in their adjustment to their jobs and are less conflicted about authority figures.
16. Participants did not significantly increase their ability to maintain self-discipline, nor to check and control their own feelings and emotions more carefully.

The failure of this category to differentiate significantly may not be an altogether negative factor since the indication is that laboratory participants tended to express their feelings more openly, thereby evidencing "less self control" but greater willingness to communicate straightforwardly and honestly.

17. Student members of small group seminars instructed by laboratory training participants expressed increased satisfaction with the atmosphere in their small groups.
18. No highly reliable predictors of individual behavioral change were isolated. The predictor with the highest correlation with actual perceived change was the composite prediction of the sensitivity training group members (Abstract).

The Personal Orientation Inventory is purported to be the only instrument currently designed for the measurement of positive mental health or self-actualization (Shostrom, 1964). The instrument has been utilized in studies which have increasingly established the reliability and validity of the POI. The investigations of Shostrom (5); Shostrom and Knapp; Fox; Zaccaria and Weir; Murray; Knapp; Braun; Braun and LaFaro; and Braun and Asta which follow are representative of those studies.

Shostrom (1964) reported that test-retest reliability coefficients of .93 for the Support Ratio and .91 for the Time Ratio were obtained from 158 normal adults retested after a lapse of 11 to 15 weeks. Shostrom (1966) also obtained test-retest reliability coefficients from 48 undergraduate college students who twice took the test, a week apart. The results were .84 for Inner-Directed, .71 for Time Competence, and a range of .55 to .85 on the subscales. He concluded that the correlations obtained were in general at a level as high as that reported for most personality measures.

Shostrom (1966) stated that the most important test of validity for the POI is that it should discriminate between individuals who have been observed in their life behavior to have attained a relatively high level of self-actualization and those who have not evidenced such development. Shostrom (1964) reported the results for two groups, one of 29 relatively self-actualized and the other of 34 relatively non-self-actualized adults, who were administered the inventory after being nominated by practicing clinical psychologists. The means for the self-actualized group were above those of the normal adult group means on 11 of the 12 scales and the means for the non-self-actualized group were below the normal means on all scales. The critical ratios were significant at the .01 level of significance on the two basic scales and on eight of the subscales and at the .05 level of significance on another subscale. It was concluded that the inventory significantly discriminates between clinically judged self-actualized and non-self-actualized groups on 11 of the 12 scales.

Shostrom and Knapp (1966) designed a study to investigate the sensitivity of the P01 with two groups of outpatients in therapy who were administered the inventory. One group consisted of 37 beginning patients entering therapy and the other of 39 patients who had been in therapy from 11 to 64 months. An analysis of the scores showed all 12 scales differentiated between the two groups and in favor of the advanced therapy group at the .01 level of significance or higher.

Fox (1965) administered the P01 to a group of 100 hospitalized psychiatric patients in a study involving a criterion group. All scales were beyond the .001 confidence level insignificantly differentiating the hospitalized group from the nominated self-actualized and from the normal adult group. The hospitalized group was also lower on all scales than the non-self-actualized group with the two basic scales reaching significance at the .01 level.

Zaccaria and Weir (1967) studying 70 alcoholics reported all mean P01 scores for the group to be significantly lower than the original validating, clinically nominated self-actualized group. In addition all but one scale showed the alcoholic group to be significantly lower than the normal adult group reported for the P01.

Murray (1966) studied 26 home economics teachers in relationship to self-actualization and teacher success as measured by ratings of 2,333 of their students on "teacher concern for students". A highly significant difference was found between teachers with high ratings and those with lower ratings with the more successful teachers being more self-actualized. The differences were significant in grades 7, 8, 9, and 10 but did not reach significance in grades 11 and 12.

Knapp (1965) administered the P01 and the Eysenck Personality Inventory (EPI) to 136 undergraduate college students to relate the self-actualization construct of the P01 to the personality construct of "neuroticism" of the EPI. A "high" (N=38) and "low" (N=35) neurotic group were selected and their mean scores were compared on each scale of the P01. A significant difference was found in the expected direction on all 12 scales with the .01 level reached on the two basic scales and eight of the 10 subscales. The .05 level was reached on the other two subscales. Self-actualization as measured by the P01 in this study is seen to be positively and significantly related to the absence of neurotic symptoms and tendencies.

Braun (1966) administered the P01 to 15 social psychology students who were asked to record their answers as "typical neurotics" and then to immediately retake and record their answers as they would after two years of therapy. The test-retest differences were significant beyond the .01 level of confidence which led Braun to conclude that as the subjects were able to manipulate their scores so readily that the P01 is highly transparent and should be used with caution in situations where persons may be motivated to make a good impression.

Shostrom (1966) investigated the effects of deliberate faking on the P01 profiles by administering the inventory to 86 beginning psychology students with instructions to respond as though they were applying for a job and wanted to make a good impression. Their scores were compared with another group of introductory psychology students from the same college who received the standard instructions. The fake good results approached the self-actualized validating group on two subscales but were

depressed on the two basic scales plus six of the subscales. Shostrom concluded that the results of directions to make a good impression did not produce a profile characteristic of self-actualized individuals.

Two further studies investigating the ability to face results were conducted by Braun resulting in his 1966 study being seen as decidedly atypical. Braun and LaFaro (1969) administered the P01 to four groups (N=67) consisting primarily of undergraduates in introductory psychology under standard instructions and later under instructions to make either a good impression or to appear well adjusted. Results showed a less favorable score when attempting to fake in 45 of the 48 comparisons with 23 t tests significant at the .05 to .001 level of confidence including all four groups on the Inner-Directed scale. The authors concluded that apparently the values deemed to be those of self-actualizing persons are not those judged likely to create a good impression or to be indicators of good adjustment by the typical college student. Two additional groups (N=42) achieved consistently more favorable scores after receiving information between test administrations on the concept of self-actualization. The findings showed 23 of 48 t tests significant including gains on the Inner-Directed scale, one of which was significant. The authors concluded that unless the subjects have special information about the P01 or self-actualization that the inventory shows an unexpected resistance to faking which makes it unique among self-report inventories.

Braun and Asta (1969) administered the P01 under real-self (N=174) and ideal-self (N=182) instructions to three groups of undergraduate introductory psychology students and student nurses. The authors concluded that contrary to earlier studies comparing standard and good

impression instructions the results were inconsistent across the 12 scales. On six scales the students consistently appeared more self-actualized under ideal-self instructions while on four others they moved toward less self-actualization. The direction of difference was consistent across all three groups with 21 of the 36 t or A-tests significant at the .05 to .001 level of confidence. The difference was significant in at least one and more often two or three of the groups. The Inner-Directed and Capacity for Intimate Contact scales were not affected significantly in any of the three groups.

Gazda and Larsen (1968) are two of many practitioners in group work who have conducted a comprehensive appraisal of group counseling research in an effort to encourage more effective research designs. In a review of approximately 100 studies relating to group counseling from 1938 to 1968, they listed the following main weaknesses:

- a. theoretical orientations vague or poorly stated
- b. the nature of treatment process not clearly presented
- c. qualification of the group counselor not clearly identified
- d. because outcome variables too global to be tied down to ways treatment may affect them, specific goals needed that can be stated in precise measurable terms
- e. tendency not to have specific outcome goals for each group member
- f. many evaluation instruments unsuitable for evaluating outcome variables (Grade point average, as the most popular means of evaluating the outcome of group counseling, indicates a low degree of sophistication. Tests of function much closer to awareness of actual performance in interpersonal relations would be much better.)
- g. difficulty in obtaining adequate control groups

In summary, Gazda and Larsen stated that past research efforts in group counseling have had generally inconclusive results.

Gibb (1970) recognized that the barriers to precise and satisfying research on the effects of human relations training are many. After viewing 106 studies plus nine earlier reviews on human relations training, he stated that considered from the viewpoint of the frequent mention in the general psychological literature of the lack of research on training, the quantity and quality of available research is surprisingly high. Gibb further stated that when compared with the standards of research in the psychological laboratory and with the desirability of definitive statements about the effects of human relations training, the methodological impurities of the studies loom large, and the results are disappointingly equivocal.

CHAPTER III

DESIGN OF THE STUDY

Sample

The population consisted of approximately 15,000 undergraduate and graduate students from Oregon State University who were registered for classes during the 1970 Winter Term. The sample came from the 360 students who registered for Ed. 312, Educational Psychology, an eleven week, three credit course required for teacher certification. Student placement in any one of the nine sections was determined by the computer assisted registration procedure. The sample consisted of 103 students who were assigned to two class sections of the investigator and one section assigned to another instructor.

Description of the Research Design

The three sections of computer selected students were divided into one experimental and two control groups. The investigator was the facilitator in the experimental group (Group I) of 30 students and one control group (Group II) of 43 students. The other control group (Group III) of 30 students was instructed by one of the five instructors assigned to the nine sections. All subjects were administered the measuring instrument under the identical pre and posttest conditions.

Collection of the Data

The pre and post administration of the Personal Orientation Inventory (POI) was completed during the first and last week of the

course. The length of the in-class instruction was reduced to nine weeks because of computer malfunction during registration week and the usual final week reservation for examinations. Other measuring instruments being utilized in all nine sections of Educational Psychology but separate from this study were administered at the same pre and post times as the POI. This was thought to equalize the effects of taking the measurement instrument in the experimental and control groups.

Description of the Experimental Group Facilitator

The investigator who functioned as facilitator in the experimental and one control group of this study is a second year doctoral student majoring in guidance and a graduate teaching assistant at Oregon State University. His prior experience includes two years of public school teaching, five years as a counselor and head counselor in a public high school, a counselor for the Neighborhood Youth Corps, two years as a university counselor and instructor, and two academic year NDEA Guidance and Counseling Institutes. He received one year of training in intensive group experience as part of an NDEA Guidance and Counseling Institute and has university experience in being a facilitator in intensive group experience and as a facilitator of learning in self-directed learning in the regular classroom.

Experimental Group Procedures

Group I (the experimental group) was one of the nine sections of the course which were coordinated under a grant from the State Department of Education of Oregon for the improvement of undergraduate education.

The grant was titled, "Student Centered Educational Psychology: An Experiential Approach". The objectives of this approach were:

1. to allow students to plan the course with the guidance of the instructor
2. to assist the student in developing his own theory of learning
3. to allow the student to learn the content of educational psychology, including: learning, motivation, discipline, classroom atmosphere, counseling, current trends in education, retention of material, transfer of training
4. to provide an opportunity for students to discover information about themselves (personal development)
5. to help students develop a more positive attitude towards themselves as teachers
6. to provide field experience for students in the form of field trips, classroom observation and participation as teacher aides

The outline of the course was given to the students in the section of the investigator (Appendix A) and was transmitted to all other sections in a similar manner. The Hawthorne effect as a special influence on the experimental group was thought to be obviated by the experimental nature of all sections in this course.

Group I was composed of 30 students - 12 male and 18 female - whose classes met at night once weekly for two hours. At the first meeting the different emphasis of the in-class time for this section was explained. The group of 30 was divided into two groups of their own preference for the experiential learning exercises. The Monday night section was composed of 6 males and 10 females and the Wednesday night section of 6 males and 8 females. Because of organizational plans there were only seven meetings of the Monday section and eight of the Wednesday section included in the data collection. One female member

transferred to another instructor's section after the first of the experiential learning exercises so she was not included in the final total which is correct as shown.

The Group I procedures differed from the above stated six objectives and the control groups in only the in-class time. The investigator planned and presented at the beginning of each class the experiential learning exercises.

Experiential Learning Exercises

The introduction preceding the first group experience included the necessity for attendance, preference for group confidentiality, availability of facilitator outside of class, safeguards for individuals during in-class activities, and the facilitator included as a group member.

Section I

1. Form a circle, pick a partner (dyad), sit down and get acquainted (4 minutes)
2. Each dyad pick another dyad, sit down and get acquainted (4 minutes)
3. In foursome, shut eyes and think of something you do well (1 minute)
4. Share this with your group (4 minutes)
5. In foursome, shut eyes and think of something about which you feel inadequate (30 seconds)
6. Share this with your group (4 minutes)
7. With eyes closed and no talking, partners touch hands palm to palm to experience their own feelings and those of their partners (2 minutes)
8. Share those feelings with your partners (4 minutes)

9. Experience #7 and #8 to continue until all males and females had been partners
10. Class discussion concerning what had been learned

Session II

1. Write on chalkboard: Of the three approaches to learning something new in which your life is not in danger, which of the three represents you (1 minute to record answer on paper)
(A) Read, discuss (B) Read, view films, discuss
(C) Jump in, try it first, draw conclusions later
2. Each person to reveal his answer from which four people were selected (representing the different answers) to sit in inner circle with remainder of students sitting in outside circle. Inner circle of four to communicate non-verbally and outside circle to observe (7 minutes)
3. Inner circle to discuss their feelings after the non-verbal experience and outside circle to observe (4 minutes)
4. Outside circle to interact with inner circle (7 minutes)
5. Parts 2, 3, and 4 repeated until all members had participated in the inner circle.
6. Class discussion concerning what had been learned

Session III

1. Each person to record anonymously on paper the percent of himself he feels he could reveal to others in this setting at this time
2. The recorded percentages to be collected, read, and the three highest and two lowest figures written on the chalkboard.
3. Each person to record on paper the name of the person he thought put down the percentage about himself (omitting his own name) and then to write his choice opposite the appropriate percentage on the chalkboard
4. Each person to have the opportunity to observe how he was seen by others and why he was seen in these ways

Session IV

1. During an unrevealed time limit each person was asked to record his responses to the following statement: List as many emotions or feelings you can think of (1 minute)
2. Each person to write his response under his name on the chalkboard
3. Each person to discuss his list as it pertains to his self perception and to receive perceptions on himself from others

Session V

1. After prior announcement for appropriate clothing, partners to engage in hand wrestling with male - male, female - female, and male - female pairings for six times
2. Each person in the class is to discuss the effects of competition and conflict with his partners and in his life style and to receive perceptions of himself from others

Session VI

1. Each person to anonymously record on paper the name of the person(s) he knows the least or who has revealed the least about himself
2. The names to be sorted and their frequency announced
3. Class discussion concerning other and self perceptions

Session VII

1. Each person to think about this statement: What attitudes, values, or behaviors have you learned from one or both of your parents that you wish you did not have or could change because it causes you uneasy moments or undesirable feelings about yourself or about others (2 minutes)
2. Each person to share his thoughts with the class (20 minutes)
3. Class response to the self perceptions (38 minutes)
4. Each person to think about this statement: What attitudes, values, or behaviors have you learned from one or both of your parents that you are happy or glad that you have internalized or that have become a party of you - is you (1 minute)

5. Each person to share his thoughts with the class (20 minutes)
6. Class response to the self perceptions (39 minutes)

Session VIII

1. Each person to record his response to the following:
Would you name any living thing - plant, insect, bird, mammal - which symbolically represents you
2. Each person to reveal his response and explain its symbolism
3. Class response to the self perceptions

Session IX

1. Each person to respond to each class member and discuss the following two questions:
What is he doing that is self defeating in relationship to himself? What is he doing that is positive in his relationship to himself or to others?

(The P0I was administered at the beginning of the last class session thereby preventing any learning response being recorded on the measuring instrument based on this final exercise.)

Control Group Procedures

Group II (the investigator's) was composed of 43 students - 17 males and 26 females. Following the purpose and structure of the course (Appendix A) the students helped structure the in-class time with a diversity of activities. The facilitator of learning initiated five areas of learning during five class sessions which were based on experiential learning exercises. Only one of these - Session I Experiential Learning Exercises - was a shortened version of a learning experience from Group I. One student invalidated the P0I and another dropped the course late in the term so neither is included in the final total which

is correct as shown.

Group III (a second instructor) was composed of 30 students - 10 males and 20 females. Following the purpose and structure of the course the students helped structure the in-class time with a diversity of activities. Three instructor initiated learning experiences were duplicates or quite similar to Group II but not to the one Group I - Group II similar experience. Two students invalidated the POI so neither is included in the final total which is correct as shown.

Both control groups met two hours weekly but the classes were divided into two one hour sessions.

Measuring Instrument

The Personal Orientation Inventory (POI), the instrument used for this study, was designed by Shostrom (1964, 1966) as a comprehensive measurement of the values and behavior deemed important in the development of self-actualization or positive mental health. The inventory is self-administering and consists of 150 two choice, paired-opposite statements. The items are scored twice, first for the two basic scales of personal orientation, Inner-Directed and Time Competent, and second for ten subscales each of which measures a conceptually important element of self-actualization. Shostrom (1966) describes the scales as follows:

Time Competent (Tc) measures degree to which one is "present" oriented

Inner Directed (I) measures whether reactivity orientation is basically toward self or others

Self-actualizing Value (SAV) measures affirmation of a primary value of self-actualizing people

Existentiality (Ex) measures ability to situationally or existentially react without rigid adherence to principles

Feeling Reactivity (Fr) measures sensitivity of responsiveness to one's own needs and feelings

Spontaneity (S) measures freedom to react spontaneously or to be oneself

Self Regard (Sr) measures affirmation or acceptance of self in spite of weaknesses or deficiencies

Nature of Man (Nc) measures degree of the constructive view of the nature of man, masculinity, femininity

Synergy (Sy) measures ability to be synergistic, to transcend dichotomies

Acceptance of Aggression (A) measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression

Capacity for Intimate Contact (C) measures ability to develop contactual intimate relationships with other human beings, unencumbered by expectations and obligations (p. 6)

While it is possible to obtain a profile of scores from the inventory, for purposes of hypothesis testing in this study, the I (Inner-Directed) scale was utilized to indicate the level of self-actualization. The I scale contains 127 of the 150 items of the POI and has a high correlation with the other subscales, therefore, Knapp (1965) contends that it is the single most representative overall measure of self-actualization. The I scale has been utilized as the measure of self-actualization in studies by Groeneveld (1969), LeMay (1969), and Russell (1968).

The I scale seems to relate to Gibb's (1971) six variables of training which have an explicit focus upon behavior change (Chapter II). The I scale is developed around value concepts having broad personal and social relevance and measures whether behavior is oriented toward self or toward others. The orientation of the self-actualizing person

tends to lie between that of the extreme other and extreme inner-directed person. He tends to be less dependency or deficiency oriented than either extreme and to have more of an autonomous self-supportive, or being orientation. He is sensitive to people's approval, affection, and good will but the source of his actions is essentially inner-directed. He is free, but his freedom is not gained by being a rebel or pushing against others and fighting them. He transcends complete inner-directedness by critical assimilation and creative expansion of his earlier principles of living. He discovers a mode of living which gives him confidence. He appears to have liberated himself from rigid adherence to the social pressures and expectations to which the normal or non-self-actualized person conforms.

The self-actualizing person lives in contrast to the extremes of the inner-directed and the other-directed person. He transcends these dichotomies. The extremely inner-directed person appears to have incorporated a psychic "gyroscope" started by parental influences and later on is further influenced by other authority figures. He goes through life apparently independent, but still obeying this internal piloting which is guided by a small number of principles. The extremely other-directed person appears to have been motivated to develop a radar system to receive signals from a far wider circle than just his parents. There is a danger that he may become over-sensitive to "others" opinions in matters of external conformity. Approval by others becomes the highest goal. Manipulation in the form of pleasing others and insuring constant acceptance becomes his primary method of relating (Shostrom, 1966).

An illustration of the paired items in the I scale are:

9. a. I feel that I have a right to expect others to do what I want of them.
- b. I do not feel that I have a right to expect others to do what I want of them.
10. a. I live by values which are in agreement with others.
- b. I live by values which are primarily based on my own feelings (Shostrom, 1963).

Reliability and validity studies associated with the P01 are included in the last section of reported studies in Chapter II.

Treatment of the Data

The answer sheets from the pre and posttest were hand scored and the statistical analysis was completed with the help of a grant from the Oregon State University Computer Center. For this study if a subject chose both or neither alternate answer for more than 15 items on the pre or posttest, he was excluded from the sample. The .05 level of confidence was selected as the acceptable level of statistical significance. An analysis of covariance was completed on the pre and posttest for all twelve scales on all three groups to establish whether the results of sex, age, school classification, or marital status influenced the answers chosen by the students on the P01. Data were reported for all twelve scales, but for statistical testing of the hypotheses, the I scale was utilized as the measure of self-actualization. All hypotheses were stated in the null for statistical testing purposes.

The hypotheses were statistically analyzed as follows:

Hypothesis I was tested by a comparison of the pre and posttest mean score utilizing a two-tailed t test.

Hypothesis II was tested by comparison of the mean score change between groups utilizing a one-tailed t test.

Hypothesis III was tested by comparison of the pre-test mean score and the posttest mean score with the mean score of a clinically judged self-actualized sample utilizing a two-tailed t test.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

For the purpose of statistical analysis, all three hypotheses were stated in the null form. The I (Inner-Directed) scale was utilized as the measure of self-actualization for statistical testing of the hypotheses. The .05 level of confidence was selected as the acceptable level of statistical significance. The investigation involved a nine weeks exposure to a group counseling procedure in the experimental group (Group I, N=30) as contrasted with the investigator's control group (Group II, N=43) and another instructor's control group (Group III, N=30) which were exposed only to student centered educational psychology for nine weeks.

An analysis of covariance was completed for all three groups on the pre and posttest for all twelve scales to establish whether the results of sex, age, school classification, or marital status influenced the answers chosen by the students on the inventory. The results revealed that these four factors did not affect the way the students responded to the POI. The sex, age, school, classification, and marital status data for each group was tabulated (Appendix B).

Related statistical treatments were performed in order to further study the differential effects of the group counseling procedure. The other eleven scales of the POI received the same statistical treatment as the I scale when the hypotheses were tested. Additionally an item analysis was completed for a Group I - II posttest comparison, the pre-posttest results for the males and females in each group were analyzed,

and the pre-posttest results of those subjects who chose to tutor public school students were compared with those who did not choose to tutor in Group I and in Group II.

Hypothesis I

Ho₁ There will be no significant change in self-actualization in Group I as measured by comparing pre and posttest mean scores on the I scale of the P01.

Ha₁ There will be a significant change in self-actualization in Group I as measured by comparing pre and posttest mean scores on the I scale of the P01.

Ho₂ There will be no significant change in self-actualization in Group II as measured by comparing pre and posttest mean scores on the I scale of the P01.

Ha₂ There will be a significant change in self-actualization in Group II as measured by comparing pre and posttest mean scores on the I scale of the P01.

Ho₃ There will be no significant change in self-actualization in Group III as measured by comparing pre and posttest mean scores on the I scale of the P01.

Ha₃ There will be a significant change in self-actualization in Group III as measured by comparing pre and posttest mean scores on the I scale of the P01.

An analysis of the I scale data for Hypothesis I (Table 1) revealed Group I to have a mean change of 8.00 and a t-Value of 6.39 which was significant at the .001 level, Group II to have a mean change of 5.67 and a t-Value of 4.17 which was significant at the .001 level, and Group III to have a mean change of 5.07 and a t-Value of 5.22 which was significant at the .001 level. From this analysis the null hypothesis was rejected for Groups I, II, and III and it was concluded that there was a significant change in self-actualization in Group I, Group II and Group III as measured by the I scale of the P01. The change was an increase toward self-actualization and significant at the .001 level of confidence for

the experimental and the two control groups.

TABLE 1. A Comparison of the I Scale Pre-Posttest Mean Score Change on the P01 for Groups I (N=30), II (N=43), and III (N=30)

Group	Pre Mean	SD	Post Mean	SD	Mean Change	t-Value
I (N=30)	83.87	12.23	91.87	13.12	8.00	6.39***
II (N=43)	85.33	10.36	91.00	12.52	5.67	4.17***
III (N=30)	85.60	8.97	90.67	10.28	5.07	5.22***
*** p < .001			Group I & III	.001 = 3.659		
			Group II	.001 = 3.539		

Hypothesis II

Ho₁ There will be no significant difference in self-actualization between Group I and Group II as measured by comparing the pre and posttest mean scores on the I scale of the P01.

Ha₁ There will be a significant difference in growth toward self-actualization between Group I and Group II as measured by comparing the pre and posttest mean scores on the I scale of the P01.

Ho₂ There will be no significant difference in self-actualization between Group I and Group III as measured by comparing the pre and posttest mean scores on the I scale of the P01.

Ha₂ There will be a significant difference in growth toward self-actualization between Group I and Group III as measured by comparing the pre and posttest mean scores on the I scale of the P01.

An analysis of the I scale data for Hypothesis II (Table 2) revealed a comparison of the mean score difference in growth between Group I and Group II to be 2.33 and the t-Value to be 1.20 which was not significant and a comparison of the mean score difference in growth between Group I and Group III to be 2.93 and the t-Value to be 1.85 which was not significant. From this analysis the null hypothesis cannot be rejected from

a comparison of the mean score difference in growth toward self-actualization between Group I and Group II and between Group I and Group III as measured by the I scale of the POI. While there was a mean score difference between Group I and Group II and between Group I and Group III, neither comparison reached the selected level of significance for a rejection of either null hypothesis in favor of the alternate hypothesis.

TABLE 2. A Comparison of the I Scale Mean Score Difference on the POI Between Group I (N=30) and Group II (N=43) and Between Group I (N=30) and Group III (N=30)

Group	I (N=30)		II (N=43)		Difference	t-Value
	Mean	SD	Mean	SD		
I - II	8.00	6.86	5.67	8.93	2.33	1.20

Group	I (N=30)		III (N=30)		Difference	t-Value
	Mean	SD	Mean	SD		
I - III	8.00	6.86	5.07	5.31	2.93	1.85

Group I - II	.05 = 1.994
Group I - III	.05 = 2.004

Hypothesis III

The following hypotheses were tested for Group I, II, and III by comparing the pre and posttest mean scores on the I scale of the POI with the mean score on the I scale from a clinically judged non-self-actualized, a normal, and a self-actualized sample.

Pre and Posttest Comparison

Ho₁ There will be no significant difference between Group I, II, and III and a non-self-actualized sample.

- Ha₁ There will be a significant difference between Group I, II, and III and a non-self-actualized sample.
- Ho₂ There will be no significant difference between Group I, II, and III and a normal sample.
- Ha₂ There will be a significant difference between Group I, II, and III and a normal sample.
- Ho₃ There will be no significant difference between Group I, II, and III and a self-actualized sample.
- Ha₃ There will be a significant difference between Group I, II, and III and a self-actualized sample.

An analysis of the I scale data for Hypothesis III (Table 3) revealed the pre-test mean score of Group I when compared with a non-self-actualized sample to show a mean difference of -8.078 and a t-Value of -2.277 which was significantly above a non-self-actualized sample at the .05 level. The pre-test mean score of Group II when compared with a non-self-actualized sample showed a mean difference of -9.537 and a t-Value of -3.206 which was significantly above a non-self-actualized sample at the .01 level. The pre-test mean score of Group III when compared with a non-self-actualized sample showed a mean difference of -9.811 and a t-Value of -2.982 which was significantly above a non-self-actualized sample at the .01 level.

The pre-test mean score of Group I when compared with a self-actualized sample showed a mean difference of 9.033 and a t-Value of 2.921 which was significantly below a self-actualized sample at the .01 level. The pre-test mean score of Group II when compared with a self-actualized sample showed a mean difference of 7.574 and a t-Value of 2.910 which was significantly below a self-actualized sample at the .01 level. The pre-test mean score of Group III when compared with a self-actualized sample showed a mean difference of 7.300 and a t-Value

of 2.724 which was significantly below a self-actualized sample at the .01 level.

The pre-test mean score of Group I when compared with a normal sample showed a mean difference of 3.328 and a t-Value of 1.248 which was below but not significantly different from a normal sample. The pre-test mean score of Group II when compared with a normal sample showed a mean difference of 1.869 and a t-Value of .837 which was below but not significantly different from a normal sample. The pre-test mean score of Group III when compared with a normal sample showed a mean difference of 1.595 and a t-Value of .617 which was below but not significantly different from a normal sample.

From this pre-test analysis for Groups I, II, and III, the H_{01} and H_{03} null hypotheses were rejected and it was concluded that there was a significant difference between all three groups and a non-self-actualized and a self-actualized sample. The H_{02} null hypothesis cannot be rejected and it was concluded that Groups I, II, and III were not significantly different from a normal sample.

An analysis of the I scale data revealed the posttest mean score of Group I when compared with a non-self-actualized sample to show a mean difference of -16.078 and a t-Value of -4.430 which was significantly above a non-self-actualized sample at the .01 level. The posttest mean score of Group II when compared with a non-self-actualized sample showed a mean difference of -15.211 and a t-Value of -4.782 which was significantly above a non-self-actualized sample at the .01 level. The posttest mean score of Group III when compared with a non-self-actualized sample showed a mean difference of -14.878 and a

t-Value of -4.392 which was significantly above a non-self-actualized sample at the $.01$ level.

The posttest mean score of Group I when compared with a normal sample showed a mean difference of -4.672 and a t-Value of -1.734 which was significantly above a normal sample at the $.05$ level. The posttest mean score of Group II when compared with a normal sample showed a mean difference of -3.805 and a t-Value of -1.653 which was significantly above a normal sample at the $.05$ level. The posttest mean score of Group III when compared with a normal sample showed a mean difference of -3.472 and a t-Value of -1.327 which was above but not significantly different from a normal sample.

The posttest mean score of Group I when compared with a self-actualized sample showed a mean difference of 1.033 and a t-Value of $.321$ which was below but not significantly different from a self-actualized sample. The posttest mean score of Group II when compared with a self-actualized sample showed a mean difference of 1.900 and a t-Value of $.652$ which was below but not significantly different from a self-actualized sample. The posttest mean score of Group III when compared with a self-actualized sample showed a mean difference of 2.233 and a t-Value of $.787$ which was below but not significantly different from a self-actualized sample.

From this posttest analysis for Groups I and II the H_{01} and H_{02} null hypotheses were rejected and it was concluded that there was a significant difference between these two groups and a non-self-actualized and a normal sample. The H_{03} null hypothesis cannot be rejected and it was concluded that Groups I and II were not significantly different from a self-

actualized sample. The H_{o_1} null hypothesis for Group III was rejected and it was concluded that there was a significant difference between Group III and a non-self-actualized sample. The H_{o_2} and H_{o_3} null hypotheses for Group III cannot be rejected. While the H_{o_2} difference revealed an increase and the H_{o_3} difference revealed a decrease, neither difference was enough to cause rejection of the null hypothesis in favor of the alternate hypothesis.

A summary of the results from analyzing Hypothesis III reveal the pre-test means of the experimental and two control groups were similar to a normal sample. The posttest means of the experimental and one control group (Group II) were similar to a clinically judged self-actualized sample. The posttest means of the other control group (Group III) reveal an increase which did not reach the level of a clinically judged self-actualized sample.

TABLE 3. A Comparison of the Pre-test and the Posttest Mean Scores on the I Scale of the POI with those of a Non-Self-Actualized (NSA) (N=39), a Normal (N) (N=158), and a Self-Actualized (SA) (N=29) Sample for Groups I (N=30), II (N=43), and III (N=30)

Group Pre and Posttest	NSA, N, SA Sample Mean	SD	I Mean	SD	Mean Diff.	t-Value	
I-Pre	NSA	75.8	16.2	83.867	12.227	- 8.078	-2.277*
I-Pre	N	87.2	13.6	83.867	12.227	3.328	1.248
I-Pre	SA	92.9	11.5	83.867	12.227	9.033	2.921**
I-Post	NSA	75.8	16.2	91.867	13.122	-16.078	-4.430**
I-Post	N	87.2	13.6	91.867	13.122	- 4.672	-1.734*
I-Post	SA	92.9	11.5	91.867	13.122	1.033	.321
II-Pre	NSA	75.8	16.2	85.326	10.364	- 9.537	-3.206**
II-Pre	N	87.2	13.6	85.326	10.364	1.869	.837
II-Pre	SA	92.9	11.5	85.326	10.364	7.574	2.910**
II-Post	NSA	75.8	16.2	91.000	12.520	-15.211	-4.782**
II-Post	N	87.2	13.6	91.000	12.520	- 3.805	-1.653*
II-Post	SA	92.9	11.5	91.000	12.520	1.900	.652
III-Pre	NSA	75.8	16.2	85.600	8.966	- 9.811	-2.982**
III-Pre	N	87.2	13.6	85.600	8.966	1.595	.617
III-Pre	SA	92.9	11.5	85.600	8.966	7.300	2.724**
III-Post	NSA	75.8	16.2	90.667	10.283	-14.878	-4.392**
III-Post	N	87.2	13.6	90.667	10.283	- 3.472	-1.327
III-Post	SA	92.9	11.5	90.667	10.283	2.233	.787

* $p < .05$.05 = 1.645

** $p < .01$.01 = 2.326

Related Statistical Data

In order to study the differential effects of the group counseling procedures all scales of the POI received the same statistical treatment as the I scale when it was utilized for the testing of the three hypotheses. In addition, an item analysis was completed for a Group I - II posttest comparison, the pre-posttest results for the males and females in each group were analyzed, and the pre-posttest results of those subjects who chose to tutor public school students were compared with those who did not tutor in Group I and in Group II.

Findings for all scales in Group I (Appendix C) reveal that a significant change occurred from pre to posttesting in eight of the twelve scales. The changes were increases and significant at the .05 to .001 level of confidence. They occurred in the scales I, SAV, Ex, Fr, S, Sr, A, and C. The increases in the other scales did not reach the level of significance.

Findings for all scales in Group II (Appendix D) reveal that a significant change occurred from pre to posttesting in ten of the twelve scales. The changes were increases and significant at the .05 to .001 level of confidence. They occurred in the scales Tc, I, SAV, Ex, Fr, S, Sa, Nc, A, and C. The increases in the other scales did not reach the level of significance.

Findings for all scales in Group III (Appendix E) reveal that a significant change occurred from pre to posttesting in six of the twelve scales. The changes were increases and significant at the .05 to .001 level of confidence. They occurred in the scales I, Ex, Sr, Sa, A, and C. The increases in five of the other six scales did not reach the level of significance. The Sy scale had a zero mean change.

Findings from a comparison of the mean score differences in growth for all scales between Group I and Group II (Appendix F) did not reveal any comparison which was statistically significant. Findings from a

comparison of the mean score difference in growth for all scales between Group I and Group III (Appendix G) reveal one scale (S) which was significant and the significance was in favor of Group I when compared with Group III.

Findings for all scales in Group I (Appendix H) reveal pre-test means not similar to those of a clinically judged self-actualized sample. Findings for five of the twelve scales reveal posttest means similar to those of a clinically judged self-actualized sample. Those five scales were the I, Ex, Fr, S, and A. While all other scales increased, the posttest means were not similar to those of a self-actualized sample.

Findings for all scales in Group II (Appendix I) reveal pre-test means not similar to those of a clinically judged self-actualized sample. Findings for three of the twelve scales reveal posttest means similar to those of a clinically judged self-actualized sample. Those three scales were the I, S, and Sr. While all other scales increased, the posttest means were not similar to those of a self-actualized sample.

Findings for all scales in Group III (Appendix J) reveal pre-test means not similar to those of a clinically judged self-actualized sample with the exception of the S scale. Findings on the posttest did not reveal any scales to be similar to the clinically judged self-actualized sample with the exception of the S scale. The S scale results were similar to a self-actualized sample on both pre and posttest. The Sy scale had a zero mean change. While the other ten scales increased, the posttest means were not similar to those of a self-actualized sample.

Findings of an item analysis of the 150 paired items of the P0I comparing the posttest responses between the experimental and the investigator's control group are shown (Appendix K). A chi-square analysis was utilized with the significance set at the .10 level of

confidence. The self-actualized response was statistically in favor of the experimental over the control group for inventory items, 2, 3, 24, and 135. The self-actualized response was statistically in favor of the control group over the experimental group for inventory items 50, 110, and 125. All these items are included in the I scale.

The male and female responses were separated and the changes from pre to posttest in each group were analyzed by means of a two-tailed t test. Findings in Group I (Appendix L) for the males reveal a positive change on all scales and the increase reached significance on six of the twelve scales. The females reveal a positive change on all scales and the increase reached significance on seven of the twelve scales. The I scale increase was significant at the .001 level of confidence for the males and females.

Findings in Group II (Appendix M) for the males reveal a positive change on all scales and the increase reached significance on six of the twelve scales. The females reveal a positive change on eleven of the twelve scales and the increase reached significance on six of the twelve scales. One scale (Sy) had a zero mean change. The I scale increase was significant at the .05 level of confidence for the males and .005 for the females.

Findings in Group III (Appendix N) for the males reveal a positive change on eight of the twelve scales and the increase reached significance on one of the twelve scales. One scale (SAV) had a zero mean change. Three scales (Tc, S, Sy) had a decrease in mean change but none reached the level of significance. The females reveal a positive change on all scales and the increase reached significance on four of the twelve scales. The I scale increase was significant at the .05 level of confidence for the males and .001 for the females. An adverse effect was reflected by some scales other than the I scale for the males in Group III in contrast to the females.

The opportunity for a student to elect to be a tutor or teacher's aide was provided within the structure of the course. The change from pre to posttest was analyzed for tutors and non-tutors in Group I and II by means of a two-tailed t test. Data were not available to carry this out for Group III. Findings in Group I (Appendix O) for the tutors reveal a positive change on all scales and the increase reached significance on eight of the twelve scales. The non-tutors reveal a positive change on eleven of the twelve scales and the increase reached significance on three of the twelve scales. One scale (Tc) had a decrease in mean change which did not reach the level of significance. The I scale increase was significant at the .001 level of confidence for the tutors and .05 for the non-tutors.

Findings in Group II (Appendix P) for the tutors reveal a positive change on all scales and the increase reached significance on eight of the twelve scales. The non-tutors reveal a positive change on all scales and the increase reached significance on four of the twelve scales. The I scale increase was significant at the .005 level of confidence for the tutors and .05 for the non-tutors.

Findings from a comparison of the mean score differences for all scales between the tutors and the non-tutors in Group I (Appendix Q) showed one scale (Ex) that reached the level of significance and the significance was in favor of the tutors over the non-tutors.

Findings from a comparison of the mean score differences for all scales between the tutors and the non-tutors in Group II (Appendix R) did not reveal any scale that reached the level of significance.

Further research would be needed to clarify the effect on self-actualization between students who tutor and those who do not tutor.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The problem of this study was to investigate whether university students enrolled in a pre-service teacher training course and exposed to a group counseling procedure could demonstrate a significant change in self-actualization when compared with similarly enrolled students who had not been exposed to the procedure. The hypotheses to be tested were:

1. There will be a significant change in self-actualization in the group exposed to a group counseling procedure. The groups not exposed to a group counseling procedure will not evidence a change in self-actualization.
2. There will be a significant difference in growth toward self-actualization between the group exposed to a group counseling procedure and the groups not exposed to the procedure.
3. The posttest mean of the group exposed to a group counseling procedure will be similar to the mean of a clinically judged self-actualized sample. The groups not exposed to a group counseling procedure will not evidence posttest means similar to the mean of a clinically judged self-actualized sample.

The review of the literature reveals a paucity of detailed group counseling procedures associated with specific research studies which would allow for replication of those studies. This study is thought to be somewhat unique in the experiential learning exercise selections and in their detailed explanation which would make replication possible. With associated measuring instruments the effects on selected populations from specific experiential learning exercises could be studied with increasing clarity.

The sample was selected from undergraduates and graduates in Oregon State University who registered during the 1970 Winter Term for the nine class sections of Ed.312, Educational Psychology. The sample of 103 students included three of the classes. One class was the experimental group and two classes were the two control groups. Student placement in the classes was determined by the computer assisted registration procedure. The investigator was the facilitator in the experimental group (Group I) of 30 students (12 male and 18 female) and one control group (Group II) of 43 students (17 male and 26 female). Another instructor from one of the nine sections was the instructor for the other control group (Group III) of 30 students (10 male and 20 female).

All nine sections of Educational Psychology were coordinated under a publicized grant titled, "Student Centered Educational Psychology: An Experiential Approach." All sections met together for one hour weekly and then were divided into nine sections, each meeting two hours weekly. The experimental group was exposed to a group counseling procedure (Chapter III - Experiential Learning Exercises) over a nine week period (the posttest was administered after eight meetings) with one two hour weekly meeting. The investigator selected the in-class procedure for presentation. The two control groups differed from the experimental in the in-class procedure. The students helped structure the two one hour weekly meetings which resulted in a diversity of activities in the two control groups.

The Personal Orientation Inventory (POI) was the instrument utilized for the measurement of growth toward self-actualization or positive mental health. The instrument was administered under pre and posttest

conditions to all three groups. The pre-posttest gains on the Inner Directed (I) Scale were utilized for the testing of the three major hypotheses by means of one tailed and two tailed t tests. All hypotheses were stated in the null for statistical testing purposes. The .05 level of confidence was selected as the acceptable level of statistical significance.

In order to study the differential effects of the group counseling procedures all scales of the P01 received the same statistical treatment as the I scale when it was utilized for the testing of the three hypotheses. Additionally to further analyze group results and to uncover problems for future investigation an item analysis was completed for a Group I - II posttest comparison, the pre-posttest results for the males and females within each group were tabulated, and the pre-posttest results of the subjects who chose to tutor public school students were compared with those who did not tutor in Group I and Group II.

The results of an analysis of covariance completed on the pre and posttest for all twelve scales on all three groups revealed that the factors of sex, age, school classification, and marital status did not affect the responses to the P01.

From an analysis of the data for Hypothesis I for the experimental group the null hypothesis was rejected and it was concluded that there was a significant change in self-actualization in the group exposed to a group counseling procedure. The change was an increase and significant at the .001 level of confidence.

From an analysis of the data for Hypothesis I for the two control groups each null hypothesis was rejected and it was concluded that there

was a significant change in self-actualization in the two groups not exposed to a group counseling procedure. The change was an increase and significant at the .001 level of confidence for both control groups.

From an analysis of the data for Hypothesis II the null hypothesis could not be rejected for a significant difference in growth toward self-actualization between Group I and Group II and between Group I and Group III. While there was a significant increase in self-actualization in the groups, there was no significant difference between the experimental group exposed to a group counseling procedure and the two control groups not exposed to a group counseling procedure.

From an analysis of the data for Hypothesis III on the pre-test for Groups I, II, and III, the null hypothesis could not be rejected and it was concluded that the experimental and two control groups were not significantly different from a normal sample. From the posttest data the null hypothesis could not be rejected and it was concluded that the experimental group exposed to a group counseling procedure and the investigator's control group (Group II) not exposed to a group counseling procedure were not significantly different from a clinically judged self-actualized sample. While the other control group (Group III) not exposed to a group counseling procedure did increase, the posttest mean was not similar to a clinically judged self-actualized sample.

An analysis of the methods employed in the "control" groups of this study reveal that these groups were exposed to another type of treatment and not a placebo. The findings of this investigation reveal a comparison of two different kinds of treatment. A group counseling procedure in the experimental group was compared to two control groups of student centered learning.

The theoretical framework of Rogers (see Background and Theoretical Framework - Chapter I) was employed for both the treatments - the group counseling procedure and self-directed learning. Both these treatments

are considered as methods to achieve growth toward self-actualization. Since two self-actualizing methods were employed in this study, the increase toward self-actualization for all groups would be expected.

While there was an orientation toward the theory of Rogers for both treatments, each individual brings his own interpretations, deviations, and uniqueness to bear on the instructional process and on the teacher-learner interactional learning process. The investigator differed significantly in his approach to the small group experience by bringing a structured exercise to the group counseling process.

The application of the self-directed learning method by the two facilitators in the control groups most likely differed. The investigator had previous experience as a student and as an "instructor" in self-directed learning, as a student and as an "instructor" in intensive group experience where he became aware of his facility with the three important attitudes of the facilitator which promote learning (Chapter I - Background and Theoretical Framework), and developed a philosophical commitment to self-actualization education. The other instructor was from a different experiential background. His lack of experience with the self-directed method was in contrast to that of the investigator. Any statement about differing effects of the two facilitators must be tentative since there was not a measuring instrument employed to investigate their effects upon this study.

Another variable of this study common to the activities of students in all three groups for their out-of-class time was each person's own personal written contract containing the area of learning he was to pursue in the course. While it was possible for each person to engage in experiences which were growth producing, maintenance of prior level, or

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Two areas from the related statistical data do clearly distinguish the differential effects within and between the experimental treatment and the controls treatment. One area was the effects on the males and females in each group as detailed in Appendixes L, M, and N. The ability to engage in self-actualizing experiences which were growthful, maintaining, or deteriorating for the males and females revealed a clear contrast in Group III when compared with the other two groups. In Group III the males, in direct contrast to the females, and the males, in direct contrast to the males from the other two groups, showed a deteriorating effect (a minus mean) on three scales though not at the level of significance. They also showed a maintenance level (a zero mean) on a fourth. The males showed a maintenance level for affirmation of the values associated with self-actualization and growth rather than conformity and frozenness (SAV); and a deteriorating effect for the ability to live more fully in the present, in the here and now, and being able to tie the past and the future to the present in meaningful continuity (Tc), for the ability to be open and disclosing, to express feelings in spontaneous action, to be oneself (S), and for the ability to transcend dichotomies, to see opposites of life as meaningfully related (Sy). Only one scale (I) showed a significant increase for the males in Group III in contrast to six scales for males of Group I and six scales for males of Group II.

The females showed significant increases in all three groups, in contrast to no increases of significance for the males, in the ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression (A). This was the only difference

in gains when comparing males or females across all three groups on the same scale.

The other area of related statistical data to clearly distinguish the differential effects of the group counseling procedure and the self-directed learning treatment in the control groups over the twelve PDI scales was detailed in Appendixes H, I, and J. The strength of the significant gains was compared with a clinically judged self-actualized sample. Five scales revealed the experimental group to be similar to the self-actualized sample after the group counseling procedure. These areas of learning were in the feelings or attitudes of personal freedom or independence and internal direction based upon inner motivations rather than upon external expectations and influence (I); in flexibility in the application of values rather than dogmatism (Ex); in awareness of and sensitivity to one's own needs and feelings rather than estrangement from one's inner world of experience (Fr); in the ability to be open and disclosing, to express feelings in spontaneous action, to be oneself (S); and in the ability to develop contactful intimate relationships with other human beings which are unencumbered by expectations and obligations (C).

Three scales revealed the investigator's control group (Group II) to be similar to the self-actualized sample after the self-directed learning. These areas of learning were in the feelings or attitudes of personal freedom or independence and internal direction based upon inner motivations rather than upon external expectations and influences (I); in the ability to be open and disclosing, to express feelings in spontaneous action, to be oneself (S); and the ability to like one's self

because of one's strength as a person as opposed to feelings of low self-worth (Sr).

None of the scales in the other instructor's control group (Group III) showed a posttest mean similar to the self-actualized sample after the self-directed learning with the exception of the S scale. The S scale had shown a pre-test mean which was similar to a self-actualized sample.

The limitations of comparing college age students in this study with the adults in the non-self-actualized, normal, and self-actualized samples are recognized. Maslow (1954) in his first research and again in 1967 retained his doubts about college students being self-actualized when he stated that we do not yet know about the applicability of the findings to young people. The possible limitation of not separating males and females in the non-self-actualized, normal, and the self-actualized samples (Shostrom, 1966) but to consider the males and the females to be equally non-self-actualized, normal, or self-actualized is recognized.

Conclusions

After consideration of the previously mentioned limitations of this study, the following conclusions were made.

1. This study was without a placebo control group. The control groups received another kind of treatment - self-directed learning. The control treatment was also a method designed to achieve growth toward self-actualization.
2. The experimental and two control groups revealed two methods successful in achieving growth toward self-actualization - a group counseling procedure and self-directed learning.

3. It cannot be concluded from this study that one self-actualization treatment takes precedence over another self-actualization treatment, but rather that both reveal growth effects.
4. The experimental group and the investigator's control group revealed a significant advantage over the control group of the other instructor in the testing of Hypothesis III. An apparent advantage was also revealed from two areas of related research - that of other scale growth similar to a self-actualized sample and other scale male growth compared to some deteriorating effects for males in Group III. A tentative explanation would seem to lie in the prior experience of the investigator with both methods of self-actualization.
5. The results of two self-actualization treatments utilized by the investigator who was experienced in both methods - group counseling and self-directed learning - did not reveal a significant advantage of one method over the other when applied in an experimental and a control group. Each group experienced growth toward self-actualization.
6. In the experimental group, growth producing effects were chosen by a facilitator with the intent of providing experiences in the affective domain which would result in growth toward self-actualization for college students in a pre-service teacher training course. In the two control groups college students in a pre-service teacher training course were given the opportunity to direct their own learning and chose experiences which resulted in their growth toward self-actualization. The effectiveness of two methods of self-actualization education seems to have been demonstrated.

Recommendations for Further Research

The present investigation seems to suggest the following possibilities for further research:

1. Additional studies utilizing specific group counseling experiences which can be replicated and studied for their effects on selected populations.
2. A replication of this study utilizing a control group that would receive a placebo rather than another type of self-actualization treatment.
3. A replication of this study utilizing the two treatments and at least two facilitators experienced in the two methods.

4. A follow up of this study to determine the strength of the gains over an extended time period for the students in all three groups.
5. A one year length of time exposure to the two methods with a placebo group included.
6. Another study as outlined in recommendation 2, 3, or 5 and the utilization of tutoring as an independent variable to determine what effects tutoring has on change of the subjects in the various groups.
7. A study with several facilitators involved in completing recommendations 1, 2, 3, 5, and 6 including a measurement of the attitudes of the facilitators and their effect on the change in self-actualization in the students.

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APPENDIXES

APPENDIX A

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Winter 1970
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Ed. 312 Educational Psychology: Learning

In Educational Psychology, Ed. 312, this year the staff (Bill Aldridge, Ed Anderson, Bill Shoemaker, Lanny Sparks, and Dick Withycombe) are undertaking an experiment. This year's class is based partially on the experiences of the instructors last year, partially on what this year's staff believes about education, and partially on writings of various prominent educators. The experiment which we are undertaking this year is an attempt to develop a student-centered approach to educational psychology.

One of the common criticisms of Educational Psychology in general has been that instructors talk about various teaching approaches, but they demonstrate only the lecture or lecture-discussion approach. In a survey of students at Oregon State University last year, negative comments typically related to lectures or the lecture approach in one way or another. There were many comments but the majority of them involved dissatisfaction with the lecture method, rigid class structure allowing very little student participation, and the apparent lack of concern of the part of the instructor for student interests and opinions. Concerns such as these have led us to develop a plan for a student-centered approach to Educational Psychology.

Basically what we have done is to leave much of the development of the curriculum of the course in the hands of the students. The course is broken down into two kinds of groupings. The entire class of 360 students meets on Mondays at noon. The staff has reserved the right to make presentations which we feel are necessary during the Monday session. The class is then broken up into nine "smaller" sections which meet for two hours during the week. The students have been left in charge of these sections with the staff member working as a resource person to help develop appropriate activities during these class meetings. Grading has also been left in the hands of the students, but they have been encouraged to develop contracts stating in what activities they will participate if they expect to earn a given grade. These contracts will be reviewed by the instructors. The student will then be grading himself on the basis of the extent to which he has completed his contract.

About two-thirds of our Monday presentations are devoted to exposition of problems in the field of education. This has included societal problems, problems with the disadvantaged, problems of minority groups, problems of professional roles, etc. During the remainder of the presentations we present information regarding possible solutions of these problems as they relate to education specifically.

It is our impression that student interests and planning have covered most of the fundamental areas of educational psychology. It has also been our observation from the supporting evidence from students both verbally and in writing that the level of enthusiasm of a high percentage of the class has been very high. They have planned field trips, undertaken projects with students in the public schools, brought in speakers and developed creative kinds of projects to meet the requirements which they have set for the course.

This course has received special funding from the State Department of Education for the Winter and Spring terms. A requirement of each proposal funded by someone else is an evaluation of what was done in relation to the objectives of the proposal. We are required to evaluate what learning took place in this course and therefore ask each student to assist us by completing a pretest and post test on:

1. Minnesota Teacher Attitude Inventory
2. Zwetschke Interpersonal Relationship Rating Scale
3. Educational Psychology Content Information

In addition I am asking that you complete the following to assist me in evaluating the course and myself on forms provided at the end of the quarter unless otherwise stated:

1. Education 312 Monday sessions and sectional meetings (your name optional)
2. Evaluation of instructor on Student Teacher Evaluation form (recently adopted for supervisor's use when you student-teach; your name optional)
3. Personal Orientation Inventory (pre-test and post test)

The above six "testing-evaluation" items have absolutely nothing to do with your grade to be turned in to the registrar.

I would like to share with you some of my concerns as an educator. While the American educational system is the recognized leader in the world, I feel it must reshape itself to meet the new conditions in the United States which are bringing pressures on the school system - pressures from an increasing population pouring into our schools, increasing technology bringing information and knowledge to the home through television, less expensive books and "educational toys", an accelerating knowledge explosion in every discipline resulting in a more sophisticated and self sufficient population, a "new" philosophy

of man being responsible for his own actions, and an active attempt by a sizable group, particularly in the 50% of our under age 25 population to bring all Americans into the active sharing of America's affluence.

Two figures are particularly alarming to me - suicide and dropouts. Suicide is the #2 cause of death in our colleges and universities and the #3 cause in our high schools. (Automobile accidents are #1 in higher education and high school and cancer #2 in high school.) A conservative compiling of suicide figures on the college campus reveal current yearly figures of 1,000 deaths, 9,000 unsuccessful attempts, and 90,000 threats to do so. For the richest nation in the world our dropout figures are 3 out of every 10 high school age students who are eligible to graduate. One of those three dropouts occur in the elementary grades. It has been estimated that 7,500,000 students would dropout in the 1960's.

Since I have an educational counselor training background and have known many of these people, I am deeply concerned with improvement of our educational system. You, the teacher, are the one to bring this change about through the kind of learning atmosphere you provide--create in your classroom. This is the purpose for the new direction of this course--so that you can experience a new approach to learning to take to your classroom.

Most of us went through--were conditioned--to the traditional system of the teacher taking most of the responsibility for the learner and his learning. So that you may encounter the rationale for a new direction in the learning process of education, my recommendation to you as a minimum learning experience for this course is to read either Freedom to Learn by Carl Rogers or Schools Without Failure by William Glasser (both are on reserve). You will have the chance to visit two schools similar to this in Portland--The Metropolitan Learning Center in its second year of operation and located in the Couch Elementary School building and the John Adams High School in its first year of operation. If you feel the books or school visits would be repetitious for you because of your past experience, feel free to readjust your contract accordingly. Structure this course so that it's involving and revelant to you!

In addition to working in the local or surrounding school districts including the Children's Farm Home some of you may want to use the facilities of the Self Learning Center (the tin building under the trees 25 years south of Education Hall); therefore a list of the films to be shown and sample of the tapes there are attached. Their hours are 9-12 and 1-5 Monday through Friday.

Since you are preparing or thinking about becoming a teacher, I would like the opportunity to get to know each one of you individually. I have set aside two thirty minute conferences during the quarter so that at least we will get a start in this direction. The first conference will be the week of January 26-30 and I'll provide a sign up

sheet for us. During the first conference we can discuss your contract for this course--what self-directed, self-structured learning you have outlined for yourself. I would like your contract turned in to me by Feb. 2 which is the start of the fifth week.

The second conference will be the week of March 9-13. During this conference we will use some of the time to discuss your completed contract and self-evaluation. I need to read these items before our conference so turn them in to me at least one day before our scheduled meeting.

Two copies of your initial contract should be made, one for each of us. To enable you to better understand a learning contract a suggested outline follows:

- I. Objectives
What have you set out to learn which is important to know?
- II. Instructional Plan
What plan do you have to enable you to carry out your objectives? (If you decide to read a book or work with students in a public school and make a report of what you read or your involvement with them, it would help me to understand you better if you would include an account of how these ideas or your involvement relate to you and education or your future role as an educator.)
- III. Evaluation (self-evaluation)
How successful were you in accomplishing your objectives?
 1. What criteria are you using to evaluate yourself?
 2. What did you say about yourself on each point of your criteria?
 3. What grade do you feel you have earned?
(Number 2 & 3 to be included in your completion of contract report)
(Freedom to Learn, Schools Without Failure, and Teaching Without Grades (also on reserve) might help you with ideas about criteria and evaluation.)

The following books are on 2 hour and over night reserve:

- The Authentic Teacher - Sensitivity & Awareness in the Classroom 1966 C. Moustakas
Challenges of Humanistic Psychology 1967 J. F. T. Bugental
Constructive Behavior: Stress, Personality, & Mental Health 1965 E. P. Torrance
Contemporary Issues in Educational Psychology 1970 Clarizio, Craig, Mehrens
Education and Ecstasy 1968 G. B. Leonard
Educational Psychology - A Programmed Text 1968 J. T. Gibson
Freedom to Learn 1969 C. R. Rogers

- Issues and Advances in Educational Psychology 1969 E. P. Torrance
& W. F. White
- Learning by Discovery - A Critical Appraisal 1966 L. S. Shulman
& E. R. Keislar
- Learning Theories for Teachers 1964 M. L. Bigge
- Schools Without Failure 1969 W. Glasser
- Summerhill 1960 A. S. Neill
- Taxonomy of Educational Objectives - The Classification of
Educational Objectives
Handbook I: Cognitive Domain 1956 Editor B. S. Bloom
Handbook II: Affective Domain 1964 Editor D. S. Krathwohl
- Teaching Without Grades 1968 M. S. Marshall

(EXPERIMENTAL GROUP ONLY)

The Monday night 7-9 section (which will be divided into two groups with one meeting on Monday night and the other on Wednesday night) will have one difference from the other sections of Ed. 312. The difference is in our class time. We will devote our efforts to learning in the affective domain. I will give you assistance as we explore this area of learning together. The learning outside of class will be more in the cognitive domain. The Taxonomy of Educational Objectives (on reserve book list) defines the affective domain as concerning feelings and emotional tone and the cognitive domain as concerning knowledge and facts.

This area of training will better enable you to establish an optimum learning atmosphere in the classroom. This is established through free flowing interaction between people; otherwise cognitive learning is blunted or blocked. You, the teacher, are vital because without skills in the affective domain you can unknowingly adversely affect the cognitive learning in your class. The affective domain training therefore has the objectives of helping you become more sensitive to your own behavior and its effect on other people, to become more sensitive to other people's behavior and its effect on you, and to help you identify your strengths and weaknesses in group (social) situations and to assist you in functioning more effectively if that is your objective.

The following excerpt is from an article which I've placed on reserve: Johnson, John L., and Seagull, Arthur A., "But Do as I Preach: Form and Function in the Affective Training of Teachers," Phi Delta Kappan, November, 1968, Vol. 50, pp. 166-70.

GOALS OF TEACHER EDUCATION

Teachers transmit information and inculcate values. One of these values is emotional maturity, and it is to this affective teaching that the present article is addressed.

Teachers should teach children to develop emotional maturity, but in order to do this they must have a similar characteristic themselves. One cannot describe color if blind from birth. But what constitutes "emotional maturity"? We propose that a child (or any person) must learn the following emotional and behavioral "skills" in order to be an effective individual.

1. Awareness of self.
2. Awareness of the process of relating to people and the environment.

3. Taking the interpersonal risks involved in being creative, critical, and independent.
4. Learning to be flexible.
5. Learning to communicate one's needs and desires unambiguously rather than engaging in maladaptive or defensive behavior.
6. Commitment to and involvement in the process of learning.
7. Learning to solve problems through discussion, so structured that solving the issue is primary and evaluation of the discussants minimal.

If we agree that the above is a description of some of the skills a mentally healthy, reasonably efficient person must have, then this implies a revolution in the role of the schools in developing good citizens. Mental health procedures and skills must be taught in the schools, just as reading and writing are. And the teachers who teach these skills must have an educational background in which these "skills" are valued and taught.

For additional reading about the affective domain from books on reserve:

Challenges of Humanistic Psychology

Carl Rogers, "The Process of the Basic Encounter Group," pp. 261-76.

Main floor Reference Desk reserve:

Psychology Today, December, 1969.

Carl Rogers, "The Group Comes of Age," pp. 261-76.

Psychology Today, December 1967.

M. H. Hall, "A Conversation with Carl Rogers," p. 18.

Fredrich H. Stoller, "The Long Weekend," p. 28.

Michael Murphy, "Esalen, Where It's At," p. 34.

APPENDIX B

Sex, Age, School Classification, and Marital Status for Groups I (N=30), II (N=43), and III (N=30)

	Group I (N=30)	Group II (N=43)	Group III (N=30)
Males	12	17	10
Females	18	26	20
Freshman	1	0	0
Sophomore	12	17	7
Junior	10	19	21
Senior	4	6	1
Graduate	3	1	1
Age Range	19-46	19-38	19-36
Average	23.4	21.4	20.9
Single	17	36	22
Married (or had been married)	13	7	8

APPENDIX C

A Comparison of the Pre-Posttest Mean Score Changes on 12 Scales of the POI for Group I (N=30)

Scale	Pre Mean	SD	Post Mean	SD	Mean Change	t-Value
Tc	16.962	3.189	17.367	3.168	.400	.923
I	83.867	12.227	91.867	13.122	8.000	6.389***
Sav	19.600	2.737	20.833	2.842	1.233	3.248**
Ex	21.433	4.454	23.633	4.545	2.200	4.852***
Fr	15.867	3.256	17.333	3.231	1.466	3.957***
S	12.167	2.949	14.233	3.070	2.066	4.520***
Sr	11.033	2.785	12.433	2.825	1.400	4.026***
Sa	15.967	3.113	17.000	3.572	1.033	1.988
Nc	11.900	1.954	12.367	1.650	.466	1.209
Sy	7.200	1.349	7.500	1.383	.300	1.179
A	16.300	3.164	17.833	2.902	1.533	3.268**
C	18.667	4.054	20.233	4.141	1.566	2.610*

* P	.05	.05	= 2.045
** P	.005	.005	= 3.038
*** P	.001	.001	= 3.659

APPENDIX D

A Comparison of the Pre-Posttest Mean Score Changes on 12 Scales of the POI for Group II (N=43)

Scale	Pre Mean	SD	Post Mean	SD	Mean Change	T-Value
Tc	17.093	2.926	18.070	2.873	.976	2.379*
I	85.326	10.364	91.000	12.520	5.674	4.167****
SAV	19.930	2.539	20.953	2.627	6.023	2.812**
Ex	21.372	3.773	22.814	4.479	1.441	3.076***
Fr	15.628	3.437	16.605	3.025	.976	2.559*
S	12.395	2.508	13.651	2.448	1.255	5.959****
Sr	12.465	2.016	12.884	1.867	.418	1.238
Sa	15.353	3.857	17.186	3.705	1.651	3.483***
Nc	12.233	1.716	12.884	1.930	.651	2.231*
Sy	7.302	2.099	7.581	1.200	.279	.887
A	15.525	3.439	16.512	3.608	.976	2.857**
C	18.279	3.692	19.372	3.710	1.093	2.674*

* P .05 = 2.018
 ** P .01 = 2.698
 *** P .005 = 2.963
 **** P .001 = 3.539

APPENDIX E

A Comparison of the Pre-Posttest Mean Score Changes on 12 Scales of the POI for Group III (N=30)

Scale	Pre Mean	SD	Post Mean	SD	Mean Change	t-Value
Tc	17.700	2.507	18.067	2.463	.366	.945
I	85.600	8.966	90.667	10.283	5.066	5.225***
SAV	20.467	2.161	20.733	2.273	.266	.525
Ex	22.067	4.160	23.200	4.213	1.133	2.752*
Fr	15.667	3.209	16.267	2.840	.600	1.385
S	12.600	2.207	12.800	2.696	.200	.519
Sr	11.767	2.176	12.667	1.493	.900	2.304*
Sa	16.267	3.600	12.800	2.933	1.600	3.545**
Nc	12.300	1.685	7.500	1.883	.500	1.463
Sy	7.500	1.333	16.667	1.333	0	0
A	15.333	2.746	19.867	3.457	1.333	2.600*
C	18.433	3.431		3.203	1.333	2.231*

* P .05 = 2.045
 ** P .005 = 3.038
 *** P .001 = 3.659

APPENDIX F

A Comparison of the Mean Score Differences for 12 Scales of the POI
between Groups I (N=30) and II (N=43)

Scale	I (N=30)		II (N=43)		Diff	t-Value
	Mean	SD	Mean	SD		
Tc	.400	2.372	.976	2.694	-0.576	-0.944
I	8.000	6.858	5.674	8.927	2.325	1.200
SAV	1.233	2.079	1.023	2.385	.210	.389
Ex	2.200	2.483	1.441	3.072	.758	1.119
Fr	1.466	2.029	.976	2.502	.489	.887
S	2.066	2.504	1.255	1.381	.810	1.774
Sr	1.400	1.904	.418	2.217	.981	1.969
Sa	1.033	2.846	1.651	3.108	-0.617	-0.864
Nc	.466	2.112	.651	1.913	-0.184	-0.388
Sy	.300	1.393	.279	2.062	.020	.048
A	1.533	2.569	.976	2.241	.566	.982
C	1.566	3.287	1.093	2.679	.473	.676

*p < .05 .05=1.994

APPENDIX G

A Comparison of the Mean Score Difference for 12 Scales of the PDI
between Groups I (N=30) and III (N=30)

Scale	I (N=30)		III (N=30)		Diff	t-Value
	Mean	SD	Mean	SD		
Tc	.400	2.372	.366	2.125	.033	.057
I	8.000	6.858	5.066	5.310	2.933	1.852
SAV	1.233	2.079	.266	2.778	.966	1.525
Ex	2.200	2.483	1.133	2.255	1.066	1.741
Fr	1.466	2.029	.600	2.372	.866	1.520
S	2.066	2.504	.200	2.107	1.866	3.123**
Sr	1.400	1.904	.900	2.139	.500	.956
Sa	1.033	2.846	1.600	2.471	-0.566	-0.823
Nc	.466	2.112	.500	1.870	-0.033	-0.064
Sy	.300	1.393	0	1.575	.300	.781
A	1.533	2.569	1.333	2.808	.200	.287
C	1.566	3.287	1.333	3.273	.233	.275

*p .05 .05=2.004

**p .005 .005=2.917

APPENDIX H

A comparison of the pre-test and the post-test mean scores on the 12 scales of the PDI with those of a Non-Self-Actualized (NSA) (N=39), a Normal (N) (N=158), and a Self-Actualized (SA) (N=29).

Sample for Group I (N=30)

NSA, N, SA	Sample Mean	SD	Scale	Pre Mean	SD	Mean Diff	t-Value	Post Mean	SD	Mean Diff	t-Value
NSA	15.8	3.6	Tc	16.967	3.189	-1.169	-1.404	17.367	3.168	-1.569	-1.890*
N	17.7	2.8	Tc	16.967	3.189	.730	1.280	17.367	3.168	.330	.580
SA	18.9	2.5	Tc	16.967	3.189	1.933	2.585**	17.367	3.168	1.533	2.059*
NSA	75.8	16.2	I	83.867	12.227	-8.078	-2.277*	91.867	13.122	-16.078	-4.430**
N	87.2	13.6	I	83.867	12.227	3.328	1.248	91.867	13.122	-4.672	-1.734*
SA	92.9	11.5	I	83.867	12.227	9.033	2.921**	91.867	13.122	1.033	.321
NSA	18.0	3.7	SAV	19.600	2.737	-1.598	-1.984*	20.833	2.842	-2.831	-3.474**
N	20.2	3.0	SAV	19.600	2.737	.597	1.013	20.833	2.842	-0.636	-1.073
SA	20.7	3.6	SAV	19.600	2.737	1.100	1.324	20.833	4.545	-0.133	-0.158
NSA	18.9	5.4	Ex	21.433	4.454	-2.533	-2.081*	23.633	4.545	-4.733	-3.861**
N	21.8	5.1	Ex	21.433	4.454	.366	.367	23.633	4.545	-1.834	-1.836*
SA	24.8	3.5	Ex	21.433	4.454	3.367	3.221**	23.633	3.231	1.167	1.102
NSA	14.3	3.8	Fr	15.867	3.256	-1.569	-1.808*	17.333	3.231	-3.035	-3.506**
N	15.7	3.3	Fr	15.867	3.256	-0.167	-0.254	17.333	3.231	-1.633	-2.492**
SA	16.3	2.8	Fr	15.867	3.256	.433	.547	17.333	3.231	-1.033	-1.310
NSA	9.8	3.4	S	12.167	2.949	-2.369	-3.037**	14.233	3.070	-4.435	-5.600**
N	11.6	3.0	S	12.167	2.949	-0.568	-0.954	14.233	3.070	-2.634	-4.393**
SA	12.7	2.9	S	12.167	2.949	.533	.700	14.233	3.070	-1.533	-1.970**
NSA	10.2	3.3	Sr	11.033	2.785	-0.833	-1.111	12.433	2.825	-2.233	-2.968**
N	12.0	2.7	Sr	11.033	2.785	.968	1.792*	12.433	2.825	-0.432	-0.798
SA	12.9	1.9	Sr	11.033	2.785	1.867	2.998**	12.433	2.825	.467	.742
NSA	14.2	4.0	Sa	15.967	3.113	-1.767	-1.997*	17.000	3.572	-2.800	-3.017**
N	17.1	4.0	Sa	15.967	3.113	1.129	1.462	17.000	3.572	.096	.122
SA	18.9	3.5	Sa	15.967	3.113	2.933	3.404**	17.000	3.572	1.900	2.063*
NSA	16.3	2.0	Nc	11.900	1.954	-0.602	-1.252	12.367	1.650	-1.069	-2.371**
N	12.4	1.9	Nc	11.900	1.954	.499	1.314	12.367	1.650	.032	.087
SA	12.3	2.2	Nc	11.900	1.954	.400	.739	12.367	1.650	-0.067	-0.133

APPENDIX H
(Cont.)

NSA, N, SA	Sample Mean	SD	Scale	Pre Mean	SD	Mean Diff	t-Value	Post Mean	SD	Mean Diff	t-Value
NSA	6.2	1.9	Sy	7.200	1.349	-1.000	-2.446**	7.500	1.383	-1.300	-3.158**
N	7.3	1.2	Sy	7.200	1.349	.099	.407	7.500	1.383	-0.201	-0.819
SA	7.6	1.2	Sy	7.200	1.349	.400	1.202	7.500	1.383	.100	.296
NSA	14.7	3.5	A	16.300	3.164	-1.600	-1.961*	17.833	2.902	-3.133	-3.964**
N	16.6	3.7	A	16.300	3.164	.296	.410	17.833	2.902	-1.237	-1.732*
SA	17.6	3.1	A	16.300	3.164	1.300	1.594	17.833	2.902	-0.233	-0.298
NSA	16.5	4.3	C	18.667	4.054	-2.167	-2.127*	20.233	4.141	-3.733	-3.633**
N	18.8	4.6	C	18.667	4.054	.130	.144	20.233	4.141	-1.436	-1.591
SA	20.2	3.4	C	18.667	4.054	1.533	1.571	20.233	4.141	-0.033	-0.033

*p .05 .05 = 1.645

**p .01 .01 = 2.326

+Significantly above SA mean

APPENDIX I

A comparison of the pre-test and the post-test mean scores on the 12 scales of the PDI with those of a Non-Self-Actualized (NSA) (N=39), a Normal (N) (N=158), and a Self-Actualized (SA) (N=29).

Sample for Group II (N=43)

NSA, N, SA	Sample Mean	SD	Scale	Pre Mean	SD	Mean Diff	t-Value	Post Mean	SD	Mean Diff	t-Value
NSA	15.8	3.6	Tc	17.093	2.926	-1.295	-1.795*	18.070	2.873	-2.272	-3.173**
N	17.7	2.8	Tc	17.093	2.926	.604	1.243	18.070	2.873	-0.373	-0.770
SA	18.9	2.5	Tc	17.093	2.926	1.807	2.721**	18.070	2.873	.830	1.265
NSA	75.8	16.2	I	85.326	10.364	-9.537	-3.206**	91.000	12.520	-15.211	-4.782**
N	87.2	13.6	I	85.326	10.364	1.869	.837	91.000	12.520	-3.805	-1.653*
SA	92.9	11.5	I	85.326	10.364	7.574	2.910**	91.000	12.520	1.900	.652
NSA	18.0	3.7	SAV	19.930	2.539	-1.928	-2.773**	20.953	2.627	-2.951	-4.194**
N	20.2	3.0	SAV	19.930	2.539	.267	.534	20.953	2.627	-0.756	-1.502
SA	20.7	3.6	SAV	19.930	2.539	.770	1.065	20.953	2.627	-0.253	-0.345
NSA	18.9	5.4	Ex	21.372	3.773	-2.472	-2.421**	22.814	4.479	-3.914	-3.585**
N	21.8	5.1	Ex	21.372	3.773	.427	.512	22.814	4.479	-1.015	-1.186
SA	24.8	3.5	Ex	21.372	3.773	3.428	3.891**	22.814	4.479	1.986	2.008*
NSA	14.3	3.8	Fr	15.628	3.437	-0.970	-1.214	16.605	3.025	-2.307	-3.055*
N	15.7	3.3	Fr	15.628	3.437	.432	.755	16.605	3.025	-0.905	-1.622
SA	16.3	2.8	Fr	15.628	3.437	1.032	1.343	16.605	3.025	-0.305	-0.432
NSA	9.8	3.4	S	12.395	2.508	-2.597	-3.961**	13.651	2.448	-3.853	-5.930*
N	11.6	3.0	S	12.395	2.508	-0.796	-1.595	13.651	2.448	-2.052	-4.125**
SA	12.7	2.9	S	12.395	2.508	.305	.475	13.651	2.448	-0.951	-1.500
NSA	10.2	3.3	Sr	12.465	2.016	-2.265	-3.789**	12.885	1.867	-2.684	-4.586**
N	12.0	2.7	Sr	12.465	2.016	-0.464	-1.050	12.885	1.867	-0.883	-2.016*
SA	12.9	1.9	Sr	12.465	2.016	.435	.919	12.885	1.867	.016	.035
NSA	14.2	4.0	Sa	15.535	3.857	-1.335	-1.538	17.186	3.705	-2.986	-3.509**
N	17.1	4.0	Sa	15.535	3.857	1.561	2.285*	17.186	3.705	-0.090	-0.133
SA	18.9	3.5	Sa	15.535	3.857	3.365	3.766**	17.186	3.705	1.714	1.968*
NSA	11.3	2.0	Nc	12.233	1.716	-0.935	-2.278*	12.884	1.930	-1.586	-3.653**
N	12.4	1.9	Nc	12.233	1.716	.166	.519	12.884	1.930	-0.485	-1.478
SA	12.3	2.2	Nc	12.233	1.716	.067	.145	12.884	1.930	-0.584	-1.190

APPENDIX I
(Cont.)

NSA, N, SA		SD	Scale	Pre		Mean		Post		Mean	
Sample Mean				Mean	SD	Diff	t-Value	Mean	SD	Diff	t-Value
NSA	6.2	1.9	Sy	7.302	2.099	-1.102	-2.484**	7.581	1.200	-1.381	-3.974**
N	7.3	1.2	Sy	7.302	2.099	-0.003	-0.011	7.581	1.200	-0.282	-1.365
SA	7.6	1.2	Sy	7.302	2.099	.298	.691	7.581	1.200	.019	.066
NSA	14.7	3.5	A	15.535	3.439	-0.835	-1.089	16.512	3.608	-1.812	-2.303*
N	16.6	3.7	A	15.535	3.439	1.061	1.691**	16.512	3.608	.084	.132
SA	17.6	3.1	A	15.535	3.439	2.065	2.598**	16.512	3.608	1.088	1.326
NSA	16.5	4.3	C	18.279	3.692	-1.779	-2.015*	19.372	3.710	-2.872	-3.247**
N	18.8	4.6	C	18.279	3.692	.518	.681	19.372	3.710	-0.575	-0.755
SA	20.2	3.4	C	18.279	3.692	1.921	2.234*	19.372	3.710	.828	.960

*p .05 .05 = 1.645

**p .01 .01 = 2.326

APPENDIX J

A comparison of the pre-test and the post-test mean scores on the 12 scales of the PDI with those of a Non-Self-Actualized (NSA) (N=39), a Normal (N) (N=158), and a Self-Actualized (SA) (N=29).

Sample for Group III (N=30)

NSA, N, SA	Sample Mean	SD	Scale	Pre Mean	SD	Mean Diff	t-Value	Post Mean	SD	Mean Diff	t-Value
NSA	15.8	3.6	Tc	17.700	2.507	-1.902	-2.468**	18.067	2.463	-2.269	-2.958**
N	17.7	2.8	Tc	17.700	2.507	-0.003	-0.005	18.067	2.463	-0.370	-0.675
SA	18.9	2.5	Tc	17.700	2.507	1.200	1.841*	18.067	2.463	.833	1.289
NSA	75.8	16.2	I	85.600	8.966	-9.811	-2.982**	90.667	10.283	-14.878	-4.392**
N	87.2	13.6	I	85.600	8.966	1.595	.617	90.667	10.283	-3.472	-1.327
SA	92.9	11.5	I	85.600	8.966	7.300	2.724**	90.667	10.283	2.233	.787
NSA	18.0	3.7	SAV	20.467	2.161	-2.465	-3.245**	20.733	2.273	-2.731	-3.557**
N	20.2	3.0	SAV	20.467	2.161	-0.270	-0.469	20.733	2.273	-0.536	-0.928
SA	20.7	3.6	SAV	20.467	2.161	.233	.303	20.733	2.273	-0.033	-0.042
NSA	18.9	5.4	Ex	22.067	4.160	-3.167	-2.660**	23.200	4.213	-4.330	-3.598**
N	21.8	5.1	Ex	22.067	4.160	-0.268	-0.271	23.200	4.213	-1.401	-1.415
SA	24.8	3.5	Ex	22.067	4.160	2.733	2.726**	23.200	4.213	1.600	1.584
NSA	14.3	3.8	Fr	15.667	3.209	-1.369	-1.585	16.267	2.840	-1.969	-2.373**
N	15.7	3.3	Fr	15.667	3.209	.033	.051	16.267	2.840	-0.567	-0.880
SA	16.3	2.8	Fr	15.667	3.209	.633	.806	16.267	2.840	.033	.045
NSA	9.8	3.4	S	12.600	2.207	-2.802	-3.920**	12.800	2.696	-3.002	-3.969**
N	11.6	3.0	S	12.600	2.207	-1.001	-1.739*	12.800	2.696	-1.201	-2.041*
SA	12.7	2.9	S	12.600	2.207	.100	.149	12.800	2.696	-0.100	-0.137
NSA	10.2	3.3	Sr	11.767	2.176	-1.567	-2.250*	12.667	1.493	-2.467	-3.801**
N	12.0	2.7	Sr	11.767	2.176	.234	.448	12.667	1.493	-0.666	-1.312
SA	12.9	1.9	Sr	11.767	2.176	1.133	2.127*	12.667	1.493	.233	.525
NSA	14.2	4.0	Sa	16.267	3.600	-2.067	-2.221*	17.867	2.933	-3.667	-4.220**
N	17.1	4.0	Sa	16.267	3.600	.829	1.056	17.867	2.933	-0.771	-1.005
SA	18.9	3.5	Sa	16.267	3.600	2.633	2.847**	17.867	2.933	-1.033	1.230
NSA	11.3	2.0	Nc	12.300	1.685	-1.002	-2.206*	12.800	1.883	-1.502	-3.172**
N	12.4	1.9	Nc	12.300	1.685	.099	.267	12.800	1.883	-0.401	-1.060
SA	12.3	2.2	Nc	12.300	1.685	0	0	12.800	1.883	-0.500	-0.939

APPENDIX J
(Cont.)

NSA, N, SA			Pre		Mean		Post		Mean	
Sample Mean	SD	Scale	Mean	SD	Diff	t-Value	Mean	SD	Diff	t-Value
NSA	6.2	1.9	7.500	1.333	-1.300	-2.552**	7.500	1.333	-1.300	-3.190**
N	7.3	1.2	7.500	1.333	-0.201	-0.701	7.500	1.333	-0.201	-0.825
SA	7.6	1.2	7.500	1.333	.100	.206	7.500	1.333	.100	.303
NSA	14.7	3.5	15.333	2.746	-0.633	-0.815	16.667	3.457	-1.967	-2.326**
N	16.6	3.7	15.333	2.746	1.263	1.777*	16.667	3.457	-0.071	-0.098
SA	17.6	3.1	15.333	2.746	2.267	2.976**	16.667	3.457	.933	1.090
NSA	16.5	4.3	18.533	3.431	-2.033	-2.121*	19.867	3.203	-3.367	-3.589**
N	18.8	4.6	18.533	3.431	.264	.299	19.867	3.203	-1.070	-1.218
SA	20.2	3.4	18.533	3.431	1.667	1.874*	19.867	3.203	.333	.387

*p .05 .05 = 1.645
 **p .01 .01 = 2.326

APPENDIX K

An Item Analysis of the 150 Paired Items of the P01 Comparing the Post-test Responses Between Groups I (N=30) and II (N=43)

Item

2.	a. When a friend does me a favor, I feel that I must return it.						
	b. <u>When a friend does me a favor, I do not feel that I must return it.</u> (SA)						
	<u>Experimental</u>	A	B	<u>Control</u>	A	B	χ^2
		9	21		24	19	3.769**
3.	a. I feel I must always tell the truth.						
	b. <u>I do not always tell the truth.</u> (SA)						
	<u>Experimental</u>	A	B	<u>Control</u>	A	B	χ^2
		7	25		21	22	3.843*
24.	a. <u>Sometimes I am cross when I am not feeling well.</u> (SA)						
	b. I am hardly ever cross.						
	<u>Experimental</u>	A	B	<u>Control</u>	A	B	χ^2
		29	1		31	12	5.708*
50.	a. Criticism threatens my self-esteem.						
	b. <u>Criticism does not threaten my self-esteem.</u> (SA)						
	<u>Experimental</u>	A	B	<u>Control</u>	A	B	χ^2
		13	17		8	35	4.136**
110.	a. Living for the future gives my life its primary meaning.						
	b. <u>Only when living for the future ties into living for the present does my life have meaning.</u> (SA)						
	<u>Experimental</u>	A	B	<u>Control</u>	A	B	χ^2
		6	24		2	41	2.838
125.	a. I suffer from memories.						
	b. <u>I do not suffer from memories.</u> (SA)						
	<u>Experimental</u>	A	B	<u>Control</u>	A	B	χ^2
		16	14		13	30	3.033*
135.	a. <u>I find some people who are stupid and uninteresting.</u> (SA)						
	b. I never find any people who are stupid and uninteresting.						
	<u>Experimental</u>	A	B	<u>Control</u>	A	B	χ^2
		20	10		19	24	2.742**

Critical Values of Chi-Square (1 d.f.) - *.05 - 3.84146

** .01 - 2.70554

APPENDIX L

Pre-posttest Mean Score Changes and t-Value for 12 Scales of the PDI
for Males (N=12) and Females (N=18) in Group I (N=30)

Scale	Males (N=12)		Females (N=18)	
	Mean Change	t-Value	Mean Change	t-Value
Tc	.083	.120	.611	1.078
I	9.833	5.623***	6.777	3.967***
SAV	1.666	2.690*	.944	1.961
Ex	1.750	2.781*	2.500	3.951**
Fr	2.000	3.727**	1.111	2.232*
S	3.166	4.422**	1.333	2.458*
Sr	2.083	3.571**	.944	2.314*
Sa	1.083	1.181	1.000	1.570
Nc	.333	.527	.555	1.111
Sy	.250	.540	.333	1.101
A	.583	.873	2.166	3.542**
C	.916	.957	2.000	2.579*

*p .05 .05=2.201
**p .005 .005=3.497
***p .001 .001=4.437

*p .05 .05=2.110
**p .005 .005=3.222
***p .001 .001=3.965

APPENDIX M

Pre-posttest Mean Score Changes and t-Value for 12 Scales of the PDI
for Males (N=17) and Females (N=26) in Group II (N=43)

Scale	Males (N=17)		Females (N=26)	
	Mean Change	t-Value	Mean Change	t-Value
Tc	1.529	2.494*	.615	1.125
I	5.352	2.786*	5.884	3.101**
SAV	1.058	1.587	1.000	2.347*
Ex	1.235	1.605	1.576	2.626*
Fr	.882	1.671	1.038	1.936
S	1.352	3.833**	1.192	4.480***
Sr	.176	.272	.576	1.547
Sa	1.764	2.737*	1.576	2.351*
Nc	1.058	2.355*	.384	1.010
Sy	.705	2.218*	0	0
A	.294	.628	1.423	3.084**
C	1.000	2.094	1.153	1.901

*p .05 .05=2.120
**p .005 .005=3.252

*p .05 .05=2.060
**p .005 .005=3.078
***p .001 .001=3.725

APPENDIX N

Pre-posttest Mean Score Changes and t-Value for 12 Scales of the PDI
for Males (N=10) and Females (N=20) in Group III (N=30)

Scale	Males (N=10)		Females (N=20)	
	Mean Change	t-Value	Mean Change	t-Value
Tc	-0.200	-0.230	.650	1.655
I	3.700	2.559*	5.750	4.569***
SAV	0	0	.400	.652
Ex	.700	.871	1.350	2.828*
Fr	1.100	1.557	.350	.637
S	-0.400	-0.514	.500	1.173
Sr	.900	2.076	.900	1.630
Sa	.900	1.196	1.950	3.485**
Nc	1.000	1.626	.250	.610
Sy	-0.300	-0.536	.150	.448
A	.400	.597	1.800	2.650*
C	1.800	1.488	1.100	1.617
*p .05	.05=2.262		*p .05	.05=2.093
			**p .005	.005=3.174
			***p .001	.001=3.883

APPENDIX 0

Pre-posttest Mean Score Changes and t-Value for 12 Scales of the PDI
for Tutors (N=18) and Non-tutors (N=12) in Group 1 (N=30)

Scale	Tutors (N=18)		Non-tutors (N=12)	
	Mean Change	t-Value	Mean Change	t-Value
Tc	.944	1.751	-0.416	-0.613
I	9.500	7.095***	5.750	2.471*
SAV	1.333	2.458*	1.083	2.106
Ex	3.111	6.515***	.833	1.130
Fr	1.111	2.513*	2.000	3.126**
S	2.277	4.209***	1.750	2.116
Sr	1.388	3.129**	1.416	2.428*
Sa	1.388	2.379*	.500	.513
Nc	.611	1.150	.250	.441
Sy	.222	.746	.416	.890
A	1.888	2.794*	1.000	1.693
C	1.500	1.942	1.666	1.675

*p .05 .05=2.110
**p .01 .01=2.898
***p .001 .001=3.965

*p .05 .05=2.201
**p .01 .01=3.106

APPENDIX P

Pre-posttest Mean Score Changes and t-Value for 12 Scales of the P01
for Tutors (N=28) and Non-tutors (N=15) in Group II (N=43)

Scale	Tutors (N=28)		Non-tutors (N=15)	
	Mean Change	t-Value	Mean Change	t-Value
Tc	1.250	2.134*	.466	1.072
I	5.928	3.153***	5.200	2.910*
SAV	.750	1.644	1.533	2.553*
Ex	1.750	2.976**	.866	1.111
Fr	1.214	2.443*	.533	.912
S	1.214	4.688****	1.333	3.567***
Sr	.428	.881	.400	1.103
Sa	1.750	2.582*	1.466	2.797*
Nc	.642	1.667	.666	1.502
Sy	.142	.313	.533	1.739
A	1.214	2.756*	.533	1.000
C	1.214	2.100*	.866	1.817

*p .05 .05=2.052
 **p .01 .01=2.771
 ***p .005 .005=3.056
 ****p .001 .001=3.690

*p .05 .05=2.145
 ***p .005 .005=3.326

APPENDIX Q

A Comparison of the Mean Score Differences for 12 Scales of the POI
between the Tutors (N=18) and the Non-tutors (N=12) in Group I (N=30)

Scale	Tutors (N=18)		Non-tutors (N=12)		Diff	t-Value
	Mean	SD	Mean	SD		
Tc	.944	2.287	-0.416	2.353	1.361	1.578
I	9.500	5.680	5.750	8.058	3.750	1.498
SAV	1.33	2.300	1.083	1.781	.250	.317
Ex	3.111	2.025	.833	2.552	2.277	2.719*
Fr	1.111	1.875	2.000	2.215	-0.888	-1.183
S	2.277	2.295	1.750	2.864	.527	.558
Sr	1.388	1.883	1.416	2.020	-0.027	-0.038
Sa	1.388	2.476	.500	3.371	.888	.833
Nc	.611	2.252	.250	1.959	.361	.452
Sy	.222	1.262	.416	1.621	-0.194	-0.368
A	1.888	2.867	1.000	2.044	.888	.925
C	1.500	3.276	1.666	3.446	-0.166	-0.133

*p .05 .05=2.048

APPENDIX R

A Comparison of the Mean Score Differences for 12 Scales of the POI
between the Tutor (N=28) and the Non-tutors (N=15) in Group II (N=43)

Scale	Tutors (N=28)		Non-tutors (N=15)		Diff	t-Value
	Mean	SD	Mean	SD		
Tc	1.250	3.098	.466	1.684	.783	.906
I	5.928	9.947	5.200	6.919	.728	.252
SAV	.750	2.413	1.533	2.325	-0.783	-1.026
Ex	1.750	3.110	.866	3.020	.883	.896
Fr	1.214	2.629	.533	2.263	.680	.847
S	1.214	1.370	1.333	1.447	-0.119	-0.266
Sr	.428	2.573	.400	1.404	.028	.039
Sa	1.750	3.586	1.466	2.030	.283	.281
Nc	.642	2.040	.666	1.718	-0.023	-0.038
Sy	.142	2.414	.533	1.187	-0.390	-0.587
A	1.214	2.331	.533	2.065	.680	.948
C	1.214	3.059	.866	1.846	.347	.401

*p .05 .05=2.021