ELLER, WAYNE CLARK

THE EFFECT OF ADULT ENRICHMENT COURSES ON SELF-ACTUALIZATION AS MEASURED BY SHOSTROM'S POI

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THE EFFECT OF ADULT ENRICHMENT COURSES ON SELF-ACTUALIZATION AS MEASURED BY SHOSTROM'S POI

by

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This study investigated the relationship of Adult Enrichment Courses and their effect upon growth toward self-actualization for course participants. Additionally, an attempt was made to determine if human interaction courses contributed more toward self-actualization than did other methods of instruction. It was hypothesized that (a) Participants would grow significantly toward self-actualization, (b) Subjects in a control group would not grow significantly toward self-actualization, and (c) The human interaction method of instruction would prove to be significantly more effective in aiding participants in growth toward self-actualization.

The data were collected through pre- and posttest administration of Shostrom's Personal Orientation Inventory (POI) and through two researcher-designed questionnaires. The courses and participants were selected from among 76 courses administered by the researcher during the fall term of the 1979-80 school year.

The results indicated that there were some developmental effects taking place, but error among the variables proved to be too great for the effects to be found significant at the .05 level of confidence. The following conclusions were drawn from the study:

1. Participants in all but one course increased in measured self-actualization.

2. Participants in three courses experienced significant ($p < .05$) growth from pre- to posttesting when subjected to within-group comparisons.

3. There was no significant growth toward self-actualization for the control group.

4. There were no significant differences in growth toward self-actualization among the three different methods of instruction when the data was subjected to an Analysis of Variance.

An effort was made to take into consideration a fairly strong negative correlation between POI scores and sex of participants by computing an Analysis of Covariance. The resulting F Ratios indicated no significant differences among groups when controlling for sex of participant.

Recommendations for further research included a suggestion to determine or develop a more reliable method of measuring self-actualization. The POI was shown to be unreliable in this field setting. A suggestion was made to incorporate some projective method of measurement which would rely on a panel of experts to estimate self-actualization attained by participating teachers with a speculation that more highly self-actualized teachers might bring about more growth toward self-actualization in their students.

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CHAPTER I

INTRODUCTION

In the mid-1950's Abraham Maslow, a clinical psychologist who had devoted much time and effort to the study of both mentally ill and highly competent and successful persons, published his first major work, Motivation and Personality, which consolidated and formally introduced his theory concerning a hierarchy of human needs. After years of working with persons who were considered abnormally adjusted, Maslow began to question more critically the previously accepted treatise that human beings are basically depraved and evil. Instead, he began to piece together bits and pieces from the writings of Freud, Adler, Jung, D. M. Levy, Fromm, Horney, and Goldstein which seemed to point to a completely different philosophy (Maslow, 1970). The common cord which bound these writings was that people are basically good and that they must be viewed as whole people with specific needs and experiences. Additionally, Maslow believed that if these basic needs were not met, the people experienced various neuroses. Not only did he find that neuroses could be brought about by need deprivation, but there seemed to be a specific order in which these needs were manifested. Maslow (1959) reasoned that if man is judged and categorized when he is in such a state of need, the result will be a warped categorization and an inaccurate view of his potentialities.

Upon further study Maslow refined his thinking. After noticing that neuroses do come about even after need gratification, he set

about to determine the cause. Again, after much study, Maslow attributed the neuroses brought about by need gratification, not to the actual attainment of the need, but rather to the transience of this kind of gratification. He believed that society over-sells the benefits of need attainment to the point that, once a need is attained, people expect the happiness which is brought about by need attainment to continue indefinitely. Unfortunately, for people who have experienced this "over-sell," happiness does not continue indefinitely--and disillusionment is the result. Maslow believed that even though we may reasonably expect improvements to take place, we have no reason to expect perfection or permanent happiness to set in once we reach need fulfillment in any given area.

In the preface to his second edition of Motivation and Personality, Maslow (1970) used the struggle for women's rights as an example of the disillusionment which follows need attainment. He made the following observation:

> In general it may be said that today, in our culture, the young girl's dream, a dream beyond which she cannot see, is most often of a man who falls in love with her, who gives her a home, and who gives her a baby. In her fantasies she then lives happily ever after. But the fact of the matter is that no matter how much one longs for a home or for a baby, or for a lover, that sooner or later one can become sated with these blessings, will take them for granted, and will start to feel restless and discontented as if something were lacking, as if something more had to be attained. The frequent mistake is to turn upon the home and the baby and the husband as something of a fake, or perhaps even a trap or an enslavement, and then to long for the higher needs and higher gratifications in an either/or way, e.g., for professional work, for freedom to travel, for personal autonomy, and the like. The main point . . . is that it is immature and unwise to think of these as mutually exclusive alternatives (p. xvi).

Maslow (1970) then reminded his readers that no matter how much one attains, once a need has been met, other needs will begin to be

manifested; and that, in order for people to make the most of their lives, they must "give up the dream of permanent and uninterrupted happiness" (p. xvii). Maslow believed that all people can and should be taught to count their blessings, be thankful for them; and then refrain from making either/or choices. Through this teaching, people can be taught to live life to its fullest, always enriching themselves with the next challenge without being remorseful that the preceding challenge and its accompanying excitement are over. This ability to accept life as it is and to set one's sights on another goal is one quality of what Maslow called a self-actualized person.

Self-actualization is the highest level of human need among Maslow's hierarchy of needs. The hierarchy begins with low level physiological needs such as food and water and then in very specific steps continues up the hierarchy to the safety needs, the needs for belongingness and love, the need for esteem and finally, the need for self-actualization. Maslow (1970) defined self-actualization as the drive within an individual to "become more and more what one idiosyncratically is, to become everything that one is capable of becoming" (p. 96). Of course, the fulfillment process of this drive in each individual will vary from person to person, depending upon his psychological make-up. Maslow (1970) explained the fulfillment process by indicating that "in one individual it may take the form of the desire to be an ideal mother, in another it may be expressed athletically, and in still another it may be expressed in painting pictures or in inventions. At this level, individual differences are greatest" (p. 46).

In an effort to test his theory, Maslow spent years studying abnormal as well as highly competent and successful human beings. These people ranged from patients whom he treated as a psychologist to close personal acquaintances whom he knew quite well. His observations and communications substantiated his theory (although it was in a nonscientific way since the records are confidential and are not available for scientific study).

Maslow's "Hierarchy-of-Needs Theory" was truly hierarchical with those needs which he classified as high level (love, belonging, esteem, self-actualization) not being satiated, indeed not even being fully understood, until both the physiological and safety needs had been satisfied to a considerable extent. The higher-level needs have little importance to someone who is struggling for survival.

As one considers the hierarchy of needs, it is interesting to note that the lower-level needs are experienced by other animals as well as human beings. But, as Maslow (1970) points out, "the higher need is a phyletic or evolutionary development . . . the higher the need, the more specifically human it is" (p. 98). Also, "the higher the need the less imperative it is for sheer survival" (Maslow, 1970, p. 98). Gratification can be postponed, and it is possible for the need to permanently disappear.

Theoretically, any person can experience self-actualizing episodes or spurts at any point in life according to Maslow (1968). The basic differentiation between those people who periodically experience these spurts and those whom Maslow called self-actualizing is the frequency with which self-actualizing episodes are experienced. The self-actualizing person has these experiences far more frequently than

the average person. In further explanation of these spurts, Maslow describes them as episodes which are characterized by intense joy; ones in which the individual is "more perfectly expressive, more spontaneous, more fully functioning, more creative, more humorous, more ego-transcending, more independent of his lower needs, etc. . . . Closer to the core of his Being, more fully human" (Maslow, 1968, p. 97).

Significance of the Study

The phenomenon of the increased need intensity of self-actualization as persons attain more of the lower-level needs has already been discussed. In keeping with this phenomenon, it is reasonable to believe that most people are not ready for self-actualization until they are at the middle or upper middle income level in the social strata.

In a study conducted by Centers and Bugenthal (1966) it was discovered that white-collar workers placed more emphasis on intrinsic sources of job satisfaction (skill requirement, interesting work, etc.) than workers in blue-collar jobs. The blue-collar workers were much more interested in the extrinsic sources of satisfaction (pay, social considerations, etc.). Maslow's theory can be used to interpret the results. Persons holding lower-level jobs are more apt to be motivated by the lower-order needs (pay, job security, etc.) since they still lack gratification of these needs.

Johnstone and Rivera (1965) discovered in their study of educational undertakings of American adults that those people in the lower social stratum judge the worth of education in terms of its direct, tangible worth to them. If there is no immediate, tangible reward,

then it is not worthy of the time and effort involved. This phenomenon seems to underscore Maslow's theory. It is possible that these people are more concerned with obtaining monetary rewards in their efforts to satisfy the lower-level needs (food, safety, etc.).

In this same study, the typical participant in adult education courses was characterized as being less than forty years of age, possessing a keen interest in continuing education, having more years of formal education than nonparticipants, and considered to occupy the middle or upper middle class rung of the social ladder. Although this study was conducted in 1965, the writer's own experience in administering adult education programs verifies that the characteristics are still appropriate for adult education participants today. The only difference is that the average age of participants had increased. The latest survey conducted in the North Carolina Department of Community and Technical Colleges (Shearon et al., 1980) indicates that the average age is now 38. In the same survey, it was determined that approximately 65% of participants have completed at least a high school education. Thirty-two per cent have attended at least one year beyond high school and 11% are college graduates.

Based on this summary of characteristics, most participants in adult education courses should have already satisfied their low-level needs. If this assumption is correct, then these participants should be ready to begin or to continue experiencing growth in the upper-level needs of love/affiliation, self-esteem and self-actualization.

Many adult education courses are now being designed to help meet the needs of self-esteem and self-actualization through group interaction and self-introspection. The Groeneveld study (1969), which

will be discussed in greater detail in the review of literature, found that group sessions actually do bring about a significant increase in measured self-actualization scores on Shostrom's Personal Orientation Inventory (hereafter referred to as POI). This study, however, like most other self-actualization studies, was conducted on college students in a college setting.

Only one other study that this researcher is aware of was conducted on adult education participants in an adult education setting where there were no external pressures to motivate the participants. That study is currently being written and concerns itself with human interaction-type classes only. The lack of prior research conducted on actual adult education participants in a real (as opposed to a simulated) educational environment makes the results of this study extremely significant.

Purpose of the Study

This study was conducted to ascertain if participation in adult enrichment courses, covering a broad range of interests, would have any significant effect on measured scores relating to self-actualization. Groups of subjects were selected through a stratified sampling of noncredit adult extension courses conducted during the 1979-80 fall term at Guilford Technical Institute in Jamestown, North Carolina.

Subpurposes of the Study

The subpurposes of the study were:

1. To determine if changes in self-actualization would be significant among groups experiencing different types of learning situations. Three types of situations were evaluated: (a) Lecture

demonstration, (b) Human interaction, and (c) Manipulative or hands on (actually doing a given project).

2. To determine if changes in self-actualization would be significant between those persons involved in adult extension classes and those who chose not to continue after their initial enrollment.

Definition of Terms

For the purposes of this study the following terms and definitions are presented:

Self-Actualization is defined as the group mean score on the Support Ratio (I) scale and the group mean score of the Time Constant (Tc) Scale of the POI used conjunctively. The conjunctive use of both the I and Tc scales includes all 150 paired items on the inventory. More will be written on the POI in a later section of this study.

Lecture-Demonstration is defined as the method of instruction which primarily uses a combination of lecture and demonstration by the instructor with little participant involvement.

Human Interaction is defined as the method of instruction which primarily uses group interaction. The instructor initiates interaction by asking specific questions which cause the members of the group to share their own ideas and to analyze the responses of other members. A special effort is made to insure that this interaction is implemented in a noncritical manner.

Manipulative is defined as the method of instruction which makes use of the participant's desire to do. Enough instruction is given to get the individuals started in constructing, repairing, or preparing something with their hands. Then specific questions or instruction is dealt with as the need arises.

Basic Assumptions

In accepting Maslow's "Hierarchy-of-Needs Theory" and the humanistic point of view upon which it was based the following assumptions are necessary:

1. All human beings will eventually seek self-actualization as their lower level needs are fulfilled.

2. The POI, developed by Shostrom, is a valid instrument for measuring self-actualization.

3. Positive changes in scores on the I and Tc scales of the POI indicate an increase in self-actualization.

4. The control group consisted of those persons who registered for one of the sampled classes but for some reason did not attend more than two class sessions before dropping out. Subsequently, the researcher was unable to contact some of the dropouts.

5. This study does not attempt to give a review of the literature leading up to the development of Maslow's "Hierarchy-of-Needs Theory." A comprehensive review of that literature has already been completed by Groeneveld in his 1969 study of "The Positive Experience Group Encounter and Its Effect Upon Self-Actualization." That study reviews the literature pertaining to studies concerning the possible effects of adult education on self-actualization.

Hypotheses

Hypothesis I--When pretest and posttest group mean scores on the I and Tc scales of the POI are compared, there will be a significant change in self-actualization among participants in all courses.

Hypothesis II--When pretest and posttest group mean scores on the I and Tc scales of the POI are compared, there will be no significant

change in self-actualization for the control group of nonparticipants.

Hypothesis III--When pretest and posttest group mean scores on the I and Tc scales of the POI are compared, there will be a significant difference in increased self-actualization for the group representing the human interaction method of instruction as opposed to the increased self-actualization measured for the other two methods of instruction.

CHAPTER II

REVIEW OF THE LITERATURE

In studying the relationship between participation in adult education programs and self-actualization, it is helpful to understand the factors which motivate persons to enroll in adult education programs. Morstain and Smart (1974) in their study of reasons for participation in adult education courses, identified the following six major motivating factors:

Factor I: Social Relationships--This factor is totally centered around the need for people to interact with other people.

Factor II: External Expectations--Many adults seem to enroll in adult education courses out of a sense of duty or responsibility when someone else recommends or suggests that they enroll.

Factor III: Social Welfare--Some people have a burning commitment to help other people. Various adults enroll in adult education courses in an attempt to better prepare themselves to serve the needs of others.

Factor IV: Professional Advancement--Some people continue their education for the monetary advantages brought about by improved job status as a result of additional education or training.

Factor V: Escape/Stimulation--This factor is concerned with finding an escape from boredom (life contrast brought about through externally induced mental stimulation).

Factor VI: Cognitive Interest--This factor deals with the internal motivation of learning something new for the pleasure it brings to the learner--the fulfillment of the human urge to learn for its own rewards.

All of the aforementioned factors are satisfied to some extent by various educational endeavors. Some courses satisfy specific needs of job training while others satisfy those needs which are more humanitarian in nature. The degree to which these needs are met depends not only on the motivation of the individual participant but also on the philosophy that is instrumental in the development of a specific educational program.

The philosophy used in the development of adult education programs is primarily humanistic in nature--that philosophy which views people as basically good with specific needs which are unique to the individual. Malcolm Knowles (1974) defined the purpose of education as "the continuous development of individuals toward their full and unique potential through their lifespan and the continuous renewal of the larger social systems of which they are a part through their constructive interactions with them" (p. 301). According to this view, education not only benefits the learner, but also, the total population benefits from the change and improvement to the social systems brought about by those persons who are educated.

Noreen's (1966) study of growth motivation in adult education pointed up the intrinsic nature of human motivation. Similarly, Moustakas (1956) and Maslow (1970) believed that human beings have an inward drive to "actualize" themselves. And, according to Rogers

(1961), an individual's motivation is centered around his self-concept. It is the individual's view of self based on previous experiences that determines, to a great extent, the behavior exhibited in any given situation. This self-concept is, of course, changeable. Through education, an individual's concept of self is determined by perceptions formed of his/her previous experiences. If the person can experience new avenues of self-discovery through education, then his/her perceptions change and in turn bring about change in self-concept. The change in self-concept can be either positive or negative depending upon the experience. A responsibility of adult educators is to strive for the development of programs which will improve, rather than lessen, the self-concepts of program participants. According to Dale (1968) one means of achieving a positive change in self-concept, and at the same time help participants in achieving high-level self-actualization needs, is through group participation in activities considered significant by group participants. Determining what kind of activities are significant is no simple task. In order to develop a program around adult needs and expectations, adult educators must make themselves aware of what adults consider significant. In an article dealing with his thoughts on adult education programming for older adults, H. R. Moody (1976) suggested that educators use "creativity" and "vision" in developing programs which will help people to "emerge as different kinds of people, with a new and enlarged sense of values and deepened understanding of who they are" (p. 15).

Also, in an article published in the Continuing Education Newsletter (1974), educators were challenged to hold fast to the goal of developing the whole person instead of simply offering technical or

vocational training. Maslow (1971) seemed to have this same concept when he indicated that it is extremely important that education include courses in the humanities since they are so close to the human being's "biological identity." In the same article Maslow challenged society to consider the humanities as basic rather than luxury. Carl Rogers (1961) also suggested that individuals can become more responsible for their own destinies and can become more self-actualized under certain conditions which allow the individuals more flexibility in determining their own actions according to their own needs.

Malcolm Knowles (1975) reiterated the necessity for an educational environment with flexibility and freedom in order for adults to benefit significantly from their participation in it. However, he suggested the need for some structure in the form of group facilitators, resource persons, etc., in order to aid in the process of inquiry and to aid in the development of competencies necessary to benefit from this type of environment. According to Knowles, adults become ready to learn only when they have a direct need to learn. Consequently, adults approach learning with an expectation of immediate application of what is learned.

Robert Comfort (1974) also studied adult education programming. Similar to Knowles's conclusions, his findings indicated that adults approach learning with a "problem-centered" orientation and are more interested in "applied knowledge" than they are interested in theory. Comfort (1974) also noted that attendance in adult courses is not necessarily continuous. Once participants achieve specific goals, they discontinue attendance, especially if they see that the additional

planned activities will not lead to increased goal fulfillment. They desire a minimum expenditure of time to complete their educational objectives--and exercise their right to autonomy in determining the length of participation.

Knowles (1974) defined his concept of the educator as being more of a "manager of the processes and resources of educative environments" (p. 316)--rather than his being a dispenser of mere instructional logistics. Noreen (1966) similarly identified the role of the educator as that of "a guide who helps establish relationships, clarifies alternatives, and presents new information with the objective of assisting the adult in self-discovery" (p. 31). William Rivera (1971) understood the importance of adult education programming in promoting "psychic development" as can be seen in his suggestion that a significant aspect of adult education is the development of the psyche in addition to the important task of skill development. He felt strongly that any good educational program must be concerned with helping participants understand their potential to learn unsuspected phenomena. And, Knowles (1975) familiarized his readers with the findings of the International Commission on the Development of Education which stated that the rapidly accelerating pace of change in the world will require educators to help people to engage in the process of inquiry during their total life span. Educators can no longer be concerned with merely transmitting data.

Many people feel that adult education not only has the task of helping people fulfill their goals and meet their needs, but they also assume that it has the ability to do this. Sheats (1953) wrote that adult education is responsible for helping adults develop their

own abilities and unique capacities. Nancy Glaser (1975) said that "humanities, as a nonformal, interdisciplinary, person-oriented study provides the opportunity for individual development through involvement in creative, intellectual, and skill activities" (p. 107). And, Dr. Stephen K. Bailey, (1974) Vice President for Government Relations of the American Council of Education, at the opening celebration of New York's Regional Learning Service of Central New York stated that education "challenges people to aspire to those activities, skills, disciplines, and behaviors that bring lasting rewards--rewards in terms of ego satisfaction, rewards in terms of social amelioration and equity, rewards in terms of what Maslow has called self-actualization" (p. 3).

It is readily seen from this review that there are many who feel the necessity for adult education to involve itself in the task of helping people "to become." Many also believe that adult education programs have the capability of fulfilling this task. With these widespread feelings, it is difficult to understand why there have been so few scientific studies developed to determine if, in fact, adult education programming is able to live up to the expectations of educators and/or researchers mentioned before in this paper. Little evidence (through two ERIC searches and a careful study of the Comprehensive Dissertation Index) has been located to indicate that attempts have been made to measure, in a scientific manner, the effectiveness of an adult education program in increasing self-actualization.

Pertinent Research Findings

One scientific study which attempted to ascertain the effectiveness of the growth group on measured self-actualization was conducted

by Melvin Foulds (1970) on a group of college undergraduates ranging from freshmen to seniors (18-22 years old) who had shown a desire to participate in a growth group experience. A control group was selected from a population of 164 students who had taken the POI pretest as part of an educational psychology course at the college. After matching for sex and pretest scores, the experimental group was subjected to nine weekly four-hour "experiential-Gestalt"-oriented sessions conducted by the experimenter, an experienced psychotherapist and group leader. Following the treatment, both experimental and control groups were readministered Shostrom's POI as a posttest. The group mean scores changed in a positive direction on each of the twelve scales of the POI, with changes on eight of the twelve being significant at the .05 level. No significant changes occurred in the scores of the participants in the control group. This study is a follow-up to a previous study conducted by the same experimenter (Foulds, 1969) in which participants in a similarly conducted growth group with eight weekly sessions experienced positive changes on the same eight POI scales. However, as the experimenter himself points out, this study dealt with only one form of group process and the same person served as the group facilitator. Foulds recommended that future investigations should take into consideration other variables such as differential time structures, group facilitators, and forms of group process. It is felt that the inclusion of these variables would enhance the significance of such a study.

Perhaps the most significant study, in terms of its relationship to the investigation conducted by this writer, is one conducted by Leroy Charles Groeneveld (1969) at Ball State University. Prior to

Groeneveld's study, much had been said or implied to claim that positive experiences helped in the growth toward self-actualization. However, the theory had not been scientifically tested. Groeneveld's study was designed to determine if differences in self-actualizing behavior existed between participants in groups which were subjected to differing group treatments. If the positive experience encounter group could effect a significant difference in measured self-actualization, then use of the procedures could certainly suggest applications for helping others attain greater progress toward self-actualization.

Groeneveld's subjects were selected from participants in Human Growth and Development, a required psychology course at Ball State University for those students enrolled in Teachers College. A total of 198 freshmen and sophomore students (143 females, 55 males) participated in the study. Three groups were selected to receive the experimental treatment (positive experience group encounters) and three "control" groups participated in all but one of the activities of the experimental groups. They did not participate in the positive experience group encounters.

Contrary to Groeneveld's expectation, there was no significant difference in the change of POI scores between groups. What is especially interesting is the fact that both control and experimental groups experienced significant changes in POI scores from pretesting to posttesting. The implication from this finding is that the treatment of past positive experiences in a group setting may definitely have a therapeutic effect in bringing about positive behavioral changes in group participants. However, it is also possible that any group

experience may have the same effect. Groeneveld's recommendations for future research include the development of a research design based on Maslow's "hierarchy of needs": that there be a true control group which would not experience any treatment as opposed to two groups which experienced two different treatments; that the participants be from a nonpsychology-class situation; that there be more than one person serving as group facilitator to keep down possible facilitator bias; and that a greater length of time then ten weeks be used.

In both of these studies, the two scales of the POI which were used included the inner-directed scale (I) and the time-competence scale (Tc). There is reason for their use and the study will now concern itself with a discussion of Shostrom's POI and its effectiveness.

The Test Instrument, Shostrom's POI

The POI grew out of a need for a standardized instrument to measure values and behavior which were considered important in the development of self-actualization within the individual. Since Maslow was the developer of the self-actualization concept, it is only natural that he was involved in the development of the standardized instrument to measure the extent of individual self-actualization. During the summer of 1962, Shostrom was able, through working with Maslow, to conceptualize and begin development of the POI (Knapp, 1976).

The test consists of 150 two-choice comparative-value-judgment items (Knapp, 1976). Participant responses to the items indicate those participants who are considered more self-actualized by the

nature of their indicated values and behavior choices. The "paired-opposite" choices which make up the 150 items are scored independently according to the scale being considered at any given time. There is a total of twelve scales--two major and ten minor. The two major scales are the Time Ratio (Tc), which measures the individual's orientation to time; and the Support Ratio (I), which measures an individual's ability to adequately balance the degree of "inner-directedness" and "other-directedness" when making behavior and value decisions. The ten minor scales are concerned with the measurement of values which are considered important in developing self-actualization (Knapp, 1976). The ten subscales and their definitions are as follows:

> Self-Actualizing Value (SAV) measures the affirmation of primary values of self-actualizing people. A high score indicates that the individual holds and lives by values characteristic of self-actualizing people, while a low score suggests the rejection of such values. Items in this scale cut across many characteristics.
>
> Existentiality (Ex) measures the ability to situationally or existentially react without rigid adherence to principles. Existentiality measures one's flexibility in applying values or principles to one's life. It is a measure of one's ability to use good judgment in applying these general principles. Higher scores reflect flexibility in application of values, while low scores may suggest a tendency to hold to values so rigidly that they become compulsive or dogmatic.
>
> Feeling Reactivity (Fr) measures sensitivity or responsiveness to one's own needs and feelings. A high score indicates the presence of such sensitivity, while a low score suggests insensitivity to these needs and feelings.
>
> Spontaneity (S) measures freedom to react spontaneously, or to be oneself. A high score measures the ability to express feelings in spontaneous action. A low score suggests that one is fearful of expressing feelings behaviorally.
>
> Self-Regard (Sr) measures affirmation of self because of worth or strength. A high score measures the ability to like oneself because of one's strength as a person. A low score suggests feelings of low self-worth.
>
> Self-Acceptance (Sa) measures the affirmation or acceptance of oneself in spite of one's weaknesses or deficiencies. A high score suggests acceptance of self and weaknesses, and a low score suggests inability to accept one's weakness. It is more difficult to achieve self-acceptance than self-regard, but self-actualizing requires both.

Nature of Man--Constructive (Nc) measures the degree of one's constructive view of the nature of man. A high score suggests that one sees man as essentially good and can resolve the good-evil, masculine-feminine, selfish-unselfish, and spiritual-sensual dichotomies in the nature of man. A high score, therefore, measures the self-actualizing ability to be synergic in one's understanding of human nature. A low score suggests that one sees man as essentially bad or evil.

Synergy (Sy) measures the ability to be synergistic--to transcend dichotomies. A high score is a measure of the ability to see opposites of life as meaningfully related. A low score suggests that one sees opposites of life as antagonistic. When one is synergistic one sees that work and play are not different, that lust and love, selfishness and selflessness, and other dichotomies are not really opposites at all.

Acceptance of Aggression (A) measures the ability to accept one's natural aggressiveness--as opposed to defensiveness, denial, and repression of aggression. A high score indicates the ability to accept anger or aggression within oneself as natural. A low score suggests the denial of such feelings.

Capacity for Intimate Contact (C) measures the ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations. A high score indicates the ability to develop meaningful, contactful, relationships with other human beings, while a low score suggests that one has difficulty with warm interpersonal relationships (Knapp, 1976, pp. 6-7).

There are varying degrees of acceptance concerning the validity of the POI. In an effort to determine test validity, McClain (1970) conducted a study of thirty (30) NDEA Guidance Institute Counselors at the University of Tennessee during the summer of 1968. Scores obtained from the administration of a pretest of the POE indicated that the group consisted of a "healthy" group. Scores were a little above Shostrom's "normal" but lower than those obtained from Shostrom's self-actualized sample. The participants underwent nine weeks of sensitivity training and were then rated by the three staff members who knew them most intimately. The criteria for rating were the same as those used by Maslow to indicate self-actualization: The counselors were rated along a six-point scale for self-actualization. In all

there were three ratings for each counselor. These were summed and then correlated with the POI measures. The correlations ranged from .23 to .69. The Support Ratio Scale received the highest correlation of .69 ($p < .01$). Since this scale consists of 127 of the total 150 items, it is reasonable that it received the highest score. The three shortest of the remaining scales were not found to be significant. All of the remaining scales were found to produce scores which were significant when correlated with the "highly reliable" judges ratings.

Another study conducted by Braun and LaFaro (1969) attempted to show that the POI was "highly transparent," especially in situations where people may be motivated to create a good impression. The study consisted of six groups of participants, all of which took the POI with the standard instructions. At the second testing, various groups were given differing instructions. Groups I, II, and III were told to answer the questions in a manner to produce a good impression. Group IV was instructed to answer as they thought an "exceptionally well-adjusted" person would answer. Groups V and VI were given special information about the POI, a lecture on self-actualization and special instructions to answer the questions in order to appear to be fully self-actualized. The results proved interesting. In Groups I-IV, the scores were less favorable when faking than on the original results. In fact, 23 of 48 tests were significant at .05 level of confidence or better. Each of those significant differences showed lower self-actualization scores when faking. In Groups V and VI, more favorable scores were obtained when faking than in the original results (11 of 24 "t" tests were significant at .05 level). The results indicate that

the POI scores can be increased through faking, but only if the participants have special knowledge about the test and the self-actualization concept. However, if participants are not familiar with the test and the concept of self-actualization, the test is highly resistant to faking.

In another study, Braun and Asta (1969) attempted to determine if participants would score differently on the POI if they were trying to present themselves as they would like to be as opposed to their real selves. The subjects were administered the test twice with different instructions. When the results were compared, there was a move toward self-actualization on six scales and away from self-actualization on four scales. The results indicated that there was "no discernable tendency for subjects to wish to be either higher or lower in self-actualization than they think they really are" (p. 161).

Richard Coan's (1972) review of the POI warns that the person taking the POI is frequently required to decide between two extreme responses which may not agree with his attitudes of behavior choices in various situations. Although Coan agrees that the test deserves the right to be used in exploratory research, he reminds the researcher that much needs to be clarified in the whole realm of "optimal personal functioning" through "systematic multivariate research," with the hope that more adequate test instruments will be available in the near future.

On the other hand, Bruce Bloxom's (1972) review indicates that generally the content validity of the POI is good. The test-retest reliability coefficients of the individual scales range from .55 to .85. Only three scales have substandard (less than .70) coefficients.

He suggests that the researcher use the standard scale profiles provided when interpreting data rather than the time-ratio and support-ratio scores which are purported by the manual as providing information beyond the profiles. Additionally, Bloxom points out that the I scale alone lacks some of the properties necessary for a complete measure of self-actualization. There is a possibility for persons to have high scores on the I scale which indicates that they have actions, feelings and thoughts like self-actualizers, and still not necessarily use all of their capacity to do so in certain situations. Bloxom also points out that items overlap in the POI's subscales, but indicates that this can be overcome by using only its two major scales (Tc and I) which do not overlap.

Vernon Damm's (1972) study of the POI also speaks to the item overlap. Not only do the items overlap but there are discrepancies in scoring individual items from scale to scale. Consequently, it is not possible to sum the Tc and I scales and obtain scores on all 150 items in a positive direction. Since all subscales overlap the I scale, Damm observed that the I scale would be the most likely representative of an overall measure of the POI. The researcher is reminded, however, that although the Tc Scale contains only 23 items, none of them overlap the I Scale. In summarizing his study, Damm concluded that the best overall measure of the POI is probably obtained through using the raw score of the I Scale or a combination of the raw scores obtained from the I and Tc Scales. He also indicated that converting raw score data to standard scores before combining them would not provide any significant increase in predictability.

To state just how valid the POI is in discriminating between varying levels of self-actualization is impossible at this point. Perhaps the best action is to accept Maslow's (1971) own contention that through the use of the POI "self-actualization can now be defined quite operationally, as intelligence used to be defined, i.e., self-actualization is what the test tests. It correlates well with external variables of various kinds and keeps on accumulating correlational meanings" (p. 21).

CHAPTER III

METHODOLOGY

This chapter will discuss the methods and procedures used in this study. They will be presented in the following order: (a) Description of the Educational Program, (b) Selection of the Population, (c) Data-Collecting Procedures, (d) Group Assignment Procedures, (e) Description of the Researcher, (f) Group Treatment Procedures, (g) Pre- and Post-testing Procedures and (h) Statistical Treatment of the Data.

Description of the Educational Program

This study was conducted within the General Adult Enrichment Program Area at Guilford Technical Institute (GTI), Jamestown, North Carolina. Guilford Technical Institute is the second largest school of the total 58 institutions in the North Carolina Department of Community and Technical Colleges. Although the school offers 26 two-year associate degree programs, 12 vocational diploma programs, and 11 one-year certificate or diploma programs to an average of 6,000 curriculum students per year, the Continuing Education Programs of the school generate just over 50 percent of the school's instructional budget. Guilford Technical Institute's Continuing Education Department is also the largest in the system--serving an average of 20,000 students per year. The school's service area consists of the entire county of Guilford with a population of over 300,000 people. Guilford County is unique in that there are two large cities within its boundaries. Greensboro, North Carolina, is the larger of the two with an estimated

population of 160,000. High Point, North Carolina, is the smaller city with an estimated population of 66,632. Also unique is the fact that there are six four-year colleges and universities within the county. The Continuing Education Department at Guilford Technical Institute consists of a multitude of courses offered through seven different program areas. The areas consist of Adult Basic Education, Adult High School, General Adult Enrichment, Occupational Extension, Human Resources Development, Public Service, and Comprehensive Employment Training Act (CETA). The program area utilized for this study is the General Adult Enrichment area. This program is primarily responsible for the development and administration of those courses designed to enrich and broaden the lives of adult participants.

Selection of the Population

The population for this study was selected through a stratified sampling of the seventy-six courses administered by the researcher during the fall quarter of the 1979-80 school year. These seventy-six courses were grouped according to seven interest areas: Industrial Arts, Human Interaction, Economics, Wilderness Programs, Food Preparation, Agriculture/Horticulture, and Miscellaneous. The stratified sampling was used to ensure proportional representation from among the seven areas. A total of ten courses were selected which represent 13.2 per cent of the courses. The 147 participants involved in this study were registered for these ten courses and represent 8.9 per cent of the total of 1,627 students registered for all seventy-six courses.

Data-Collecting Procedures

The collected data fall into three major categories--descriptive, objective, and subjective. The methods of their collection are described as follows:

Descriptive Data. Each person in the population sample was asked to complete a Program Participant Survey (see Appendix A). This survey provided descriptive data such as occupation, annual family income, etc. During the same session they were administered the Personal Orientation Inventory (POI). Both the POI and the Program Participant Survey were administered within the first two class sessions. (This administration was extended beyond the first session in those classes where there was not sufficient attendance at the initial session to obtain a justifiable sample of the number preregistered.)

Objective Data. The POI was administered as a pretest during the first (and in some cases the second) class session in order to obtain the measure of self-actualization attained prior to attending this particular course. In those cases where the POI was administered during the second class session, it was administered only to those persons who had not attended the first class session. Therefore, the test was in all cases administered during the individual's first class session.

With few exceptions, the second administration of the POI was during the last class session as a posttest to determine the measure of self-actualization attained at that point.

Subjective Data. In addition to the POI posttest, each course participant in attendance during the testing session was requested to complete a course evaluation form (see Appendix B). This form asked for the participant's response to questions dealing with goal fulfillment, instructor enthusiasm and helpfulness, the method of instruction, and an overall evaluation of the fulfillment of course objectives. The resulting responses were evaluated and material

which was directly related to this study was abstracted and included in the related subjective findings section of Chapter IV.

Group Assignment Procedures

In an effort to ensure that the study would be concerned with a typical class situation rather than a manipulated setting, no effort was made to manipulate the class assignment. After a majority of the participants had registered for the 1979-80 fall quarter courses, it was possible to determine which of the courses would have to be cancelled due to insufficient registration. Therefore, those cancelled courses were deleted from the total listing of courses prior to the stratified random sampling. Every precaution was made to ensure that bias was eliminated from the sampling procedure. Since the researcher was unfamiliar with the course codes, they were used as identifiers rather than course names when conducting the sampling. Only after the sampling was taken, was the researcher able to determine which courses were selected. Also, since the instructor assignments had been made prior to the sampling, no bias was in effect in the instructor selection process.

Description of the Researcher

The individual conducting the research in this study is an Assistant Dean of Continuing Education Programs at Guilford Technical Institute, Jamestown, North Carolina. He is responsible for the administration of the Adult Enrichment Courses which are not art or clothing related. Those two areas are administered by two other assistant deans with those specific responsibilities. The researcher has administered these programs for nine years. He is also enrolled as a doctoral student at The University of North Carolina in Greensboro, North

Carolina. Prior to his entry into educational administration, the researcher taught both in public high school and at the technical institute level.

Group Treatment Procedures

Other than the pre- and posttesting of the groups selected through the stratified random sampling, the groups received no "special" treatment. The courses were allowed to be conducted in the normal manner without outside interference. As a matter of courtesy to the teachers involved, the researcher did place a telephone call to the teachers prior to the pretesting to arrange the best time for the actual "survey." A special effort was made to ensure that there would be no conditioning by the researcher of the teachers or by the teachers of their class participants. At no time were they told that the POI is a test of self-actualization. In fact, the terms "self-actualization" or "self-esteem" were never used in conjunction with the test. Since the control group was made up of those participants who attended only one or two class sessions, those persons received the same pretest treatment as the experimental groups.

Pretesting and Posttesting Procedures

Pretesting Procedures. As indicated earlier, the pretest was administered during the first class session of each course in conjunction with a Program Participant Survey. In order to eliminate an experimenter bias in giving survey and test instructions, the following prepared statement was read to all participating groups:

> I am Wayne Eller, an administrator at GTI with the responsibility of administering courses for Adult Enrichment. This course is in my area of responsibility. In addition to being an administrator, I am a doctoral student at UNC-G. As part of both my job and my studies, I am conducting a survey to give

me a better understanding of the characteristics which make up a "typical" participant in GTI's Adult Enrichment Courses.

The survey consists of two parts. The first part consists of a number of questions dealing with occupation, salaries, how you learned about GTI's Adult Education Programs, and why you are taking this course. The second part consists of a personality inventory which measures an individual's feelings, beliefs, philosophies and concerns at a given point in time. This survey will help me to develop and offer courses which will better meet the needs and interests of Guilford County's population.

No part of the individual results of this survey will be identifiable to anyone other than myself. My own interest is in the class statistics of the survey analysis, not in individual responses.

The first part of the survey will take only two or three minutes to complete. The Personality Inventory will take approximately thirty to forty minutes although there is no time limit. Instructions for the POI are printed on the front page of the booklet. Read them carefully before you begin to complete the inventory. If you have any questions, raise your hand and I will come and give you assistance.

In those cases where participants did not care to participate in either part of the survey, requests were honored. The statement read to the class participants was deliberately vague in order to prohibit the possibility of researcher bias toward more or less favorable results on the POI.

Posttesting Procedures for Experimental Groups. Due to the fact that the experimental groups were made up of participants in actual adult enrichment courses, the length of time lapse between pre- and posttesting varied according to the varying lengths of the courses. The shortest time lapse was four weeks and the longest time lapse was thirteen weeks.

According to findings discussed in Chapter II, the researcher realized there would be a certain amount of participant dropout due to the varying degrees of motivation and personal goal fulfillment. In an effort to ensure a significant number of posttest responses, the researcher wrote a letter to each participating instructor approximately

five weeks after the pretest date (see Appendix C). This letter was the first indication to the instructors that there would be a follow-up to the initial "survey." Additionally, it indicated the researcher's interest in obtaining as many repeat surveys as possible. The instructors were asked not to inform class participants of the follow-up in order to ensure as normal a class situation as possible. In this letter, a tentative date for administering part two of the survey was set with a request to inform the researcher if the instructor received any forewarning that the attendance was going to experience a rapid decline. The initial dates established for the administration of part two of the survey were scheduled within the last two regular class sessions of each course. An effort was made to allow for the maximum class time between pre- and posttesting.

The posttest session included the administration of a researcher-developed course evaluation form in addition to the POI. This form (see Appendix B) not only included items which would help the researcher in evaluating the success of the course as judged by class participants, but it also provided information which would help determine the method of instruction used.

Due to the fact that participant response to the researcher's initial request for pretest completion was less than enthusiastic, the researcher felt the necessity to call upon the course instructors to enthusiastically support the posttest procedure. This was done by telephone at the same time the researcher called the instructors a couple of days prior to the posttest date to verify the date. The researcher followed the suggestion of one of his committee members that he include a reference to his doctoral committee in the

instructions in an effort to enlist additional support from the participants in completing the retest. Again, in an effort to eliminate researcher bias, the same instructions were given to all groups posttested. The instructions were as follows:

> I am sure you remember completing a survey for me at the beginning of this course. You will recall that I indicated the second part of that survey (the Personality Inventory) measured aspects of your personal feelings, beliefs, philosophies, and concerns at a given point in time. My doctoral committee is interested in seeing if people's feelings, beliefs, etc., change over a period of time and, therefore, have asked me to retest the participants in an effort to determine to what extent this is so. I will sincerely appreciate your cooperation in completing the inventory a second time. I would also like for you to complete a short Course Evaluation Form.
>
> I realize that I am taking away from your class time, but in talking with your instructor (s)he assures me that (s)he will be able to complete the planned instruction in the time remaining.
>
> Remember to read the instructions on both the booklet and Course evaluation before answering the questions.
>
> Thank you for your willingness to cooperate in this study. The results will be available in both the GTI Learning Resource Center and UNC-G's library effective December, 1980.

Posttesting Procedures for the Control Group

The control group, as already indicated, consisted of those participants who registered for a class, but who attended only one or two class sessions within the first two weeks. Since these individuals dropped out of the various classes following the pretest, it was necessary to determine their identities in order to contact them for posttesting. This was possible through the use of their identification numbers which were placed on the pretest answer sheets. Following the administering of posttests in the ten classes (an elapsed time of approximately 13 weeks), a list was made for each class of those identification numbers in the class for which there was not a posttest score. A check was made of the individual class rosters to determine

the attendance records of those 71 people who were not present during the session in which the posttest was administered. Those identification numbers of participants who had attended more than two class sessions before dropping the course were deleted from the list of potential control group members. After this deletion, there remained twenty persons who had taken the pretest but who had dropped out after only two class sessions (within the first two weeks of class). This group of twenty persons became the potential control group participants. After determining the identities of these twenty persons a concerted effort was made to contact them by telephone. Out of the twenty persons, fourteen were eventually contacted. The remaining six persons were not able to be contacted through repeated attempts on two consecutive days. The fourteen persons contacted were given the same request. The text of that request was as follows:

> This is Wayne Eller, Assistant Dean for Continuing Education at Guilford Technical Institute. Our records indicate that you were registered for the course _____ during the fall term. Our records also indicate that you were not able to attend more than one or two class sessions. Do you remember taking a survey for me at the start of the course? (Reply.) Since you attended a minimum of class sessions, I would like to have you serve as a member of a control group for my research if you will consent to retaking the Personality Inventory part of that survey. Do you remember my saying that the inventory measures a person's feelings, beliefs, etc., at a given point in time? (Reply.) Well, people's attitudes, feelings, etc., are known to change over a period of time and I am interested in determining whether there has been a change in your feelings since the original testing. Your retaking the inventory will allow me to determine the stability of the instrument.

Of the fourteen persons contacted, thirteen consented to retake the inventory. One person forcefully declined. Test booklets, answer sheets, and a prestamped, preaddressed envelope were mailed to each of the thirteen who consented, along with a cover letter (see Appendix D)

requesting return by December 19 (the beginning of Guilford Technical Institute's Christmas holidays). Nine responses were obtained by the time the researcher returned from Christmas holidays on December 31. On January 15, an effort was made to contact the remaining four persons. Two were unable to be contacted. Two were contacted and one promised to send the survey the next day. The other person had misplaced the inventory and was mailed another. Neither of them ever responded.

Statistical Treatment of the Data

To test hypotheses I and II the pre- and post-POI scores were subjected to a within-group comparison to determine if any significant changes had occurred within either of the experimental or control groups. The comparison required that pre- and posttest scores on the same instrument be obtained with a given time lapse for each subject. In this case, the pre- and posttest scores on the POI were correlated.

In order to implement this correlation, the "t" test for non-independent samples was selected. The researcher followed the procedures for computing "t" as outlined by Gay (1976). The formula used to compute the "t" scores is:

$$t = \frac{\bar{D}}{\sqrt{\frac{D^2 - \frac{(D)^2}{N}}{N(N-1)}}}$$

Where D = Difference between matched scores

$\bar{D}$ = Mean of differences

N = Number in sample

In order to test hypothesis III, the analysis of variance was selected to statistically determine the significance of differences between pre- and posttest scores of the various groupings of courses according to teaching method used.

Upon analyzing the results of the computer-calculated Analysis of Variance, an Analysis of Covariance was also used to determine if the within error could be reduced by controlling for an evident bias due to sex of participants. More about this phenomenon will be discussed in Chapter IV which follows.

CHAPTER IV

FINDINGS

The data obtained through this study are separated into two main categories. The first category deals with the testing of the hypotheses. The second deals with related statistical findings. This chapter will be presented accordingly.

Testing Hypotheses

In Chapter I of this study, three major hypotheses were stated and were to be tested in this experiment. The hypotheses, restated in the null, are as follows:

Null Hypothesis I--When pretest and posttest group mean scores on the I and Tc Scales of the POI are compared, there will be no significant change in self-actualization among participants in any course.

Null Hypothesis II--When pretest and posttest group mean scores on the Tc and I Scales of the POI are compared, there will be no significant change in self-actualization for the control group of nonparticipants.

Null Hypothesis III--When pretest and posttest group mean scores on the Tc and I Scales of the POI are compared, there will be no significant difference in increased self-actualization for the group representing the human interaction method of instruction as opposed to the increased self-actualization measured for the other two methods of instruction.

These null hypotheses were tested to see if the different groups did experience any significant changes in self-actualization due to their exposure to instruction in various adult enrichment courses. This exposure was in varying lengths from four weeks to thirteen weeks and differing amounts of time per week, from three to six regularly scheduled hours per week (see Table 1). One course, Wildwater II, met considerably more hours due to several weekend practicums associated with the course. The results of testing each hypothesis are given below:

Null Hypothesis I

H_o:

When pretest and posttest group mean scores on the Tc and I Scales of the POI are compared, there will be no significant change in self-actualization among participants in any course.

Null Hypothesis I was rejected. The changes in group mean scores on the Tc and I Scales from pre- to posttest administrations indicated significant increases within three of the ten courses. The t test for nonindependent samples indicated that in three of the ten experimental groups, there was a significant increase in self-actualization during the time lapse of the treatment (see Table 2).

Although the Null Hypothesis was rejected for Hypothesis I, the original hypothesis stated in Chapter I is not proven to be totally correct. That hypothesis stated that all groups (with the exception of the control group) would experience significant increases in self-actualization due to their participation in adult enrichment courses. Although only three of the ten groups experienced increases considered significant, it should be pointed out that, with one exception, all experimental groups did experience net increases of from 10 to 78

Table 1

Analysis of Courses and Participants Selected for the Study

Course Code	Course Title	Method of Instruction*	No. Students Regis.	No. Students Pretested	No. Students Posttested	No. Students Used in Control Group	Length of Instruction
3EAE	Brick & Stone Masonry	2	28	15	5	3	12 wks/72 hrs
3EAN	Furniture Re-finishing	2	20	14	7	2	11 wks/33 hrs
3EAZ	Solar Energy Systems	4	12	11	3	2	12 wks/36 hrs
2EEE	Investments for Profit	3	20	15	6	0	8 wks/24 hrs
3EFR	Homemade Candies	2	25	22	18	0	4 wks/12 hrs
3EFW	Gourmet Cooking	2	17	10	9	0	11 wks/33 hrs
3EGA	Holiday Cooking	4	24	13	6	2	6 wks/18 hrs
3EHD	Assertiveness Training	3	34	18	8	0	12 wks/36 hrs
3EWG	Wildwater II	2	15	11	5	0	10 wks/110 hrs
3ETC	Adv. Home Landscape Design	4	24	18	7	0	13 wks/39 hrs
Total (10 Courses)			219	147	74	9	

*2--Manipulative (Hands-on)
3--Human Interaction
4--Lecture/Demonstration

Table 2

A Comparison of Tc + I Scale Pre- and Posttest
Mean Score Changes for All Groups

Group[a]	N	Tc + I Pre-Score	$\bar{X}$	S.D.	Tc + I Post-Score	$\bar{X}$	S.D.	Change	t	df (N - 1)
Control (1)	9	885	98.33	13.51	889	98.78	12.55	+ 4	.16	8
3EAE (2)	5	428	85.60	14.98	456	91.20	17.37	+28	3.23[b]	4
3EAN (2)	7	738	105.43	10.94	729	104.14	4.85	- 9	-.97	6
3EAZ (4)	3	281	93.67	13.32	298	99.33	14.01	+17	4.66[b]	2
2EEE (3)	6	554	92.33	9.61	585	97.50	12.57	+31	2.14	5
3EFR (2)	16	1655	103.44	10.33	1733	108.31	9.02	+78	3.45[c]	15
3EFW (2)	8	807	100.88	20.54	817	102.13	21.67	+10	.43	7
3EGA (4)	6	591	98.50	8.60	602	100.33	3.78	+11	1.66	5
3EHD (3)	8	827	103.38	11.76	855	106.88	12.83	+28	1.27	7
3EWG (2)	5	542	108.40	5.23	565	113.00	2.45	+23	1.44	4
3ETC (4)	7	669	95.57	12.16	705	100.71	11.97	+36	2.19	6

[a]Numbers in parentheses ( ) indicate method of instruction predominantly used in the course: (1) Control, (2) Manipulative, (3) Human Interaction, (4) Lecture/Demonstration.

[b]$p < .05$

[c]$p < .01$

points. An analysis of the groups experiencing significant increases in self-actualization follows.

3EAE Brick and Stone Masonry (Table 3)--Fifteen participants in this group were pretested. After nine weeks of two three-hour classes per week--a total of 54 class hours--only five participants (all males) remained to be posttested. Of those five, one participant scored a net loss of one (1) point from pre- to posttesting. The remaining four scored from six to nine points more on the posttest. There was a combined increase of 28 points for this group. When the t score was calculated, the result ($t = 3.233$) indicated a significant increase at the .05 level of confidence. The biggest difficulty with this statistic is that only five persons were able to be posttested. The remaining ten persons pretested were not available for retesting. In fact, on the first posttesting date only three persons were in attendance. The researcher made a second retest effort one week later in an attempt to obtain posttest scores from more class participants. This effort resulted in two additional responses for the final total of five participants. Since the researcher wanted to keep the elapsed time closely equal for all subjects, no effort was made to return to the class a third time. This class group, it seemed, was just prone to be erratic in attendance.

3EAZ Solar Energy Systems (Table 4)--Eleven participants were pretested in this group. After ten weeks of one three-hour class per week (30 hours of instruction), only three participants were in attendance on the evening they were posttested. Of those three (all males), one dropped two points from pre- to posttesting. The other two, increased ten points and nine points respectively. The net gain

Table 3

An Analysis of Scores from Tc and I Scales of POI as Obtained Through Pretest to Posttest Administrations for Course 3EAE Brick and Stone Masonry

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
AE1	60	65	13	15	73	80	+ 7	9/25/79	11/20/79
AE2	81	88	11	13	92	101	+ 9	9/20/79	11/20/79
AE3	56	52	13	16	69	68	- 1	9/20/79	11/27/79
AE4	88	91	18	21	106	112	+ 6	9/20/79	11/20/79
AE5	75	80	13	15	88	95	+ 7	9/20/79	11/27/79
Totals N = 5	360	376	68	80	428	456	+28		

$t = 3.233$ $p < .05$

Table 4

An Analysis of Scores from Tc and I Scales of POI as Obtained Through Pretest to Posttest Administrations for Course 3EAZ Solar Energy Systems

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
AZ1	89	97	16	18	105	115	+10	9/18/79	11/27/79
AZ2	82	83	15	12	97	95	- 2	9/18/79	11/27/79
AZ3	68	74	11	14	79	88	+ 9	9/18/79	11/27/79
Totals N = 3	239	254	42	44	281	298	+17		

$t = 4.661$ $p < .05$

of seventeen points for the group was significant at the .05 level of confidence (t = 4.661). Again, the small number of participants post-tested caused concern as to the reliability of the results. In questioning the instructor, the researcher discovered that the class size had dwindled remarkably due to the highly theoretical nature of the class.

3EFR Homemade Candies (Table 5)--Twenty-two participants were pretested in this group. After four weeks of one three-hour class per week (12 hours total), eighteen female participants were posttested. Of the eighteen, one response had to be disregarded since it was not completed. Only three of the remaining seventeen participants had experienced a decrease in scores from pre- to posttest. The decreases were of one, five, and one, respectively. The remaining fourteen participants increased from one to fourteen points. The net group increase of seventy-eight points was significant at the .01 level of confidence (t = 3.454).

Null Hypothesis II

H_o:

> When pretest and posttest group mean scores on the Tc and I Scales of the POI are compared, there will be no significant change in the self-actualization for the control group of nonparticipants.

Null Hypothesis II was not rejected. The change in the group mean scores on the Tc and I Scales from pre- to posttest was not sufficiently large to reject the Null Hypothesis. By the use of the t test to determine significance, it was determined that the control group experienced no significant growth in self-actualization during the eleven-week period. An analysis of the control group follows:

Table 5

An Analysis of Scores from Tc and I Scales of the POI as Obtained Through Pretest to Posttest Administration for Course 3EFR Homemade Candies

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
FR1	83	97	19	19	102	116	+14	9/13/79	10/11/79
FR2	91	90	17	17	108	107	- 1	9/13/79	10/11/79
FR3	78	77	18	20	96	97	+ 1	9/13/79	10/11/79
FR4	70	78	12	16	82	94	+12	9/13/79	10/11/79
FR5	86	91	21	21	107	112	+ 5	9/13/79	10/11/79
FR6	87	96	16	18	103	114	+11	9/13/79	10/11/79
FR7	82	86	20	19	102	105	+ 3	9/13/79	10/11/79
FR8	100	102	17	19	117	121	+ 4	9/13/79	10/11/79
FR9	93	97	17	17	110	114	+ 4	9/13/79	10/11/79
FR10	101	99	20	17	121	116	- 5	9/13/79	10/11/79
FR11	93	94	21	19	114	113	- 1	9/13/79	10/11/79
FR12	93	97	14	20	107	117	+10	9/13/79	10/11/79
FR13	87	94	17	19	104	113	+ 9	9/13/79	10/11/79
FR14	71	75	19	16	90	91	+ 1	9/13/79	10/11/79
FR15	75	83	14	17	89	100	+11	9/13/79	10/11/79
FR16	73	59	Not Complete - - Unusable Sample - - - - - - - - - - -						10/11/79
FR17	88	90	15	13	103	103	0	9/13/79	10/11/79
Totals N = 16	1378	1446	277	287	1655	1733	+78		

$t = 3.454$ $p < .01$

Control Group (Table 6)--This group consisted of nine participants with a two-thirds (2/3) to one-third (1/3) female to male ratio--six female and three male--the same proportion as for the entire group of 82 participants. Of the eighty-two, 55 were female (67.1%) and 27 were male (32.9%). In the control group, two males and two females experienced positive score changes from pre- to posttesting with the remaining five participants (four females and one male) experiencing negative score changes from pre- to posttesting. The greatest positive score change was experienced by a male (+15 points) and the greatest negative score change was experienced by a female (-12 points). One can only speculate as to the reasons for these score changes. The positive score changes could have been brought about through some enrichment activity experienced in a different type of setting during the time elapsed from pre- to posttesting. As Maslow (1970) indicated, self-actualization spurts might be brought about through some experience entirely divorced from education. It is interesting to note that the person experiencing the greatest increase, the male with the +15 points, is also the person with the lowest combined prescore (75). It is possible that the pretest was administered on a day that the individual was not feeling well for some reason; consequently, his score was not a true measure of his self-actualized standing at that point.

Similarly, the female participant with the net loss of twelve points may not have felt well on the day she completed the posttest. The significant fact is that, over all, the control group experienced essentially no growth in self-actualization as indicated by pre- to posttesting scores on the POI.

Table 6

An Analysis of Scores from Tc and I Scales of the POI as Obtained Through Pretest to Posttest Administrations for Control Group

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
C1	64	74	11	16	75	90	+15	9/20/79	12/21/79
C2	92	94	16	21	108	115	+ 7	9/18/79	12/17/79
C3	81	85	15	16	96	101	+ 5	9/20/79	12/ 8/79
C4	88	77	17	16	105	93	-12	9/17/79	12/16/79
C5	91	89	19	20	110	109	- 1	9/17/79	12/16/79
C6	82	85	19	17	101	102	+ 1	9/18/79	12/16/79
C7	72	70	14	14	86	84	- 2	9/18/79	12/16/79
C8	96	94	21	20	117	114	- 3	10/24/79	12/17/79
C9	71	65	16	16	87	81	- 6	10/24/79	12/17/79
Totals N = 9	737	733	148	156	885	889	+ 4		

t = .16

Null Hypothesis III

H_o:

When pretest and posttest group mean scores on the Tc and I Scales of the POI are compared, there will be no significant difference in increased self-actualization for the group representing the human interaction method of instruction as opposed to the increased self-actualization measured for the other two methods of instruction (lecture-demonstration and manipulative).

Null Hypotesis III was not rejected. The value of the mean squares of differences between the treatment groups was not sufficiently large to overcome the extremely large error variance (variance within the groups). Because of this fact, the resulting F Ratio (see Tables 7 and 8) was not significant enough to indicate that the human interaction method of instruction brought about any greater increase in self-actualization than did the other instructional methods (lecture/demonstration or manipulative).

Table 7

Analysis of Variance, "Tc" Differences

SV	SS	df	MS	F
Groups	1.287	3	0.429	.07
Control vs. Others	1.001	1	1.001	.16
Hum. Int. vs. Man/LD	0.249	1	0.249	.04
Hum. Int. vs. Others	0.696	1	0.696	.11
Error	464.263	76	6.109	
Total	465.550			

Table 8

Analysis of Variance, "I" Differences

SV	SS	df	MS	F
Groups	112.646	3	37.549	1.12
Control vs. Others	106.911	1	106.911	3.19
Hum. Int. vs. Man/LD	6.550	1	6.550	0.20
Hum. Int. vs. Others	39.903	1	39.903	1.19
Error	2547.842	76	33.524	
Total	2660.488			

Related Statistical Findings

Although Null Hypothesis I was rejected on the basis of t-score findings, it is important to note that when the Tc and I difference scores for the control group were subjected to more intense scrutiny through an application of Analysis of Variance in testing Null Hypothesis III, the resulting F Ratio for "Control vs. Others" raised sufficient question to warrant further testing. When the control group was matched with the experimental groups, the resulting F Ratio for I score differences (3.19) was significant only at the .078 level of confidence. The F Ratio for Tc score differences (.16) was not significant at all. In analyzing the correlation coefficients of the known variables (age, sex, marital status, educational level, I scores--pre, post, and difference--and Tc scores--pre, post, and difference) a fairly strong negative correlation with sex was evident. Females were less likely than males to make high increases in scores from pre- to posttesting. The correlations with the differences in Tc scores and I scores were -.279 and -.233, respectively.

In an effort to remove this bias, Analysis of Covariance was computed with sex of participants as a covariant. The results (see Tables 9 and 10) indicate that when the variable of sex is controlled for, the resulting F ratios are not significant. When the control group was matched with the experimental groups the corresponding F Ratios were 2.31 (Tc score differences) and .03 (I score differences).

Table 9

Analysis of Covariance, Tc Differences Controlling for Sex of Participants

SV	SS	df	MS	F
Groups	56.795	7	8.114	1.43
Control vs. Others	13.139	1	13.139	2.31
Hum. Int. vs. Man/LD	0.999	1	0.999	.18
Hum. Int. vs. Others	0.225	1	0.225	.04
Error	408.755	72	5.677	
Total	465.550			

When the human interaction method of instruction was matched with the other two methods (manipulative and lecture/demonstration) the F Ratios were not significant for the Tc Scale differences (.18) or for the I Scale differences (.04). When the human interaction group was matched with all of the other groups the resulting F Ratios again were not significant for Tc Scale (.04) or I Scale (.01).

In addition to the test results obtained through the POI, certain descriptive information was gathered by the researcher through the use of a survey form developed for the purpose. From that survey, a fairly

good description of the typical adult education participant in this experiment was obtained.

Table 10

Analysis of Covariance, I Differences
Controlling for Sex of Participants

SV	SS	df	MS	F
Groups	275.299	7	39.328	1.19
Control vs. Others	1.146	1	1.146	.03
Hum. Int. vs. Man/LD	1.376	1	1.376	.04
Hum. Int. vs. Others	0.401	1	0.401	.01
Error	2385.188	72	33.128	
Total	2660.488			

Sex--As noted earlier, of the 82 participants involved in the experiment, 55 or 67.1% were female; 27 or 32.9% were male.

Age--The mean age was 38.35 years. This is the same as the mean age for the typical adult participating in the programs offered through North Carolina's Department of Community Colleges (see Significance of Study, p. 5). The youngest participant was 19 and the oldest was 69. The standard deviation was 12 years.

Education--The average level of education was 14.26 years with a standard deviation of 2.25 years. The minimum was eleven years and the maximum was 21 years.

Marital Status--Eighty-two per cent (82%) of the participants were married; eleven and a half per cent (11.5%) were single; five per cent (5%) were divorced; and the remaining one and one half per cent (1.5%) were widowed.

Annual Family Income--Thirty-one of the 82 respondents indicated an annual family income of over $25,000--37.8%. Seventeen per cent (17%) of the families made between $20,001 and $25,000 annually; thirteen per cent (13%) made between $15,001 and $20,000; twenty-four per cent (24%) were in the $10,0001-$15,000 range; four per cent (4%) made between $5,001 and $10,000; and the remaining four per cent (4%) made less than $5,000 annually. Over two-thirds of the participants (67%) had annual family earnings of over $15,000.

Reason for Taking the Course--Of the eight choices given as possible reasons for taking the course, only one ("To meet other people") was not selected at least once. The predominant reason given was "To learn something I have always wanted to know about or how to do." There were 57 responses to that one reason. The reasons and the corresponding number of responses are listed below:

a. 3 To gain a better insight of myself.

b. 7 To learn a marketable skill for part-time or full-time use.

c. 8 To get a break from the daily "grind."

d. 4 My spouse or friend suggested I take this course.

e. 57 To learn something I have always wanted to know about or how to do.

f. 0 To meet other people.

g. 2 To receive renewal (teacher certification) credits.

h. 1 Other. (Please specify.)

The response to "Other" was "I want to build a stone wall on my lot with left over stone from fireplace."

From these statistics, it is evident that this group of participants is fairly synonymous with the typical adult education participant

as outlined in the Johnstone and Rivera (1965) study previously discussed (see Significance of Study, p. 5).

In summary, significant t scores representing significant increases in self-actualization as a result of participating in general adult enrichment courses was a result in three of the ten courses tested. Although there were significant t scores for these three courses, the small size of the samples makes it impossible to place much significance on the findings. Additionally, when the courses were grouped according to instructional method and subjected to an analysis of variance, it was determined that females had a smaller tendency than males to experience large difference scores from pre- to posttest on the POI. Further, in an attempt to control for this bias, the group mean scores for the classes, when combined according to instructional method, were subjected to an analysis of covariance. The resulting F ratios indicated that there was no significant difference from one method of instruction to another.

CHAPTER V

CONCLUSIONS, RECOMMENDATIONS, AND SUMMARY STATEMENTS

As far as can be determined, this is the only study of its kind which attempts to measure the effectiveness of adult enrichment courses in increasing self-actualization among course participants. Additionally, this is the only study of its kind which attempts to measure self-actualization levels of adults in a true field setting. Because of the "ground-breaking" nature of the study, the results must be considered tentative.

In this chapter, the writer will present conclusions, recommendations for further research, and a summary of the findings of this study.

Conclusions

As a result of the limitations of this study, the following guarded conclusions seem warranted:

1. Participants in all but one course increased in measured self-actualization during the period of course enrollment.

2. Participants in three courses experienced significant growth in self-actualization--two at the .05 level of confidence, and one at the .01 level of confidence.

3. There was no significant growth in self-actualization for the control group.

4. Although there seems to have been some variable functioning to bring about differences among class groups, there were no significant

differences in growth toward self-actualization experienced by any combination of courses when grouped according to instructional method.

Recommendations

Educational research, more often than not, raises as many questions as it answers. With the questions raised by this study and with its limitations in mind, the following recommendations are made for further research:

1. Clearer definitions of the concepts involved in self-actualization. The vague terminology used by psychologists in defining self-actualization presents an extremely difficult task for someone trying to measure it.

2. An improved method for measuring self-actualization. The POI has shown in this study that it has difficulty with internal reliability when subjects are hesitant to participate in its administration.

3. Attempt to determine the measure of self-actualization already attained by participating teachers prior to participating in the study. It is possible that more highly self-actualized teachers bring about more growth toward self-actualization in their students.

4. Determine whether participants feel good about their own accomplishments during the course as well as how they feel toward their teacher as a person. Possibly some relationship exists between these two phenomena.

5. Until there is a more reliable instrument than the POI, perhaps some projective method of measurement could be developed which would rely on a panel of experts to estimate the level of self-actualization attained.

6. Additional research with the aforementioned changes in methodology.

Summary Statements

This study was implemented to determine if there is a relationship between participation in adult enrichment courses and growth toward self-actualization among those persons participating. Additionally, an effort was made to determine if the instructional method used by teachers had any effect upon measured self-actualization.

Based upon Maslow's "Hierarchy-of-Needs Theory" and the degree to which most participants in adult enrichment programs have satiated their lower-level needs, three hypotheses were presented for testing. Hypothesis I stated that when pretest and posttest group mean scores on the I and Tc Scales of Shostrom's POI were compared, there would be significant increases in self-actualization among participants in all courses. Hypothesis II stated that when pretest and posttest group mean scores on the I and Tc Scales of the POI were compared, there would be no significant change in self-actualization for the control group of nonparticipants. And, Hypothesis III stated that when pretest and posttest group mean scores on the I and Tc Scales of the POI were compared, there would be a significant difference in increased self-actualization for the group representing the human interaction method of instruction as opposed to the increased self-actualization measured for the other two methods of instruction.

In order to test these hypotheses a stratified sampling was taken from 76 adult enrichment courses supervised by the researcher during the fall term of the 1979-80 school year. A total of ten courses were selected through the sampling procedure. The 147

participants involved in this study were registered for these ten courses representing 8.9 per cent of the 1,627 participants registered for all 76 courses.

All participants involved were administered the POI as a pretest to determine their level of self-actualization prior to course participation. Additionally, a Program Participant Survey was administered to provide descriptive data on course participants. From that point, the courses were conducted in the normal manner. The only other interruption was for a second administration of the POI as a posttest as close as possible to the last class session of each course.

A control group was selected from those persons pretested but who, for some reason, did not attend after the first two class sessions. After all courses had been allowed to complete their total number of scheduled class sessions, participants in the control group were identified and requested to retake the POI as a posttest. Of the fourteen persons contacted, nine responded favorably to the request.

After an analysis of the scores obtained from both pre- and posttest administrations of the POI and from the results of the Program Participant Survey and Course Evaluation, the hypotheses were then tested.

Through a within-group comparison of the POI group mean score changes, t tests were computed for the experimental and control groups. These t test computations resulted in the following conclusions concerning Hypotheses I and II.

Hypothesis I was rejected. Although three courses experienced significant increases in self-actualization at the .05 or better level of confidence, the remaining seven did not. Of those seven, six

courses increased in self-actualization and one decreased but none of them in significant amounts.

Hypothesis II was accepted. The group mean score of the control group did not experience an increase considered significant. In fact, the group mean score increased a total of only four points.

In order to test Hypothesis III, an analysis of variance was computed which compared the variances of group scores against each other according to selected groupings. The three groupings tested were: (a) Control versus Others, (b) Human Interaction versus Manipulative/Lecture-Demonstration, and (c) Human Interaction versus Others. The resulting F Ratios indicated that there was no significant difference in score changes brought about by the different instructional methods. Therefore, the hypothesis that persons taught by the human interaction method would experience more growth toward self-actualization than persons taught by the other methods was proven to be erroneous.

In analyzing the results of the analysis of variance, the F Ratio for "Control versus Others" raised sufficient question to warrant further testing. When the control group was contrasted with the experimental groups, the resulting F Ratio for the I Scale (3.19) was significant at .078 level of confidence. Correlation coefficients were computed for the variables of age, sex, marital status, educational level, I Scores (pre, post, and difference) and Tc Scores (pre, post, and difference). The results showed a moderate negative correlation for the sex variable. Females were less likely than males to make high increases in scores from pre- to posttesting.

An analysis of covariance was computed with sex of participants as a covariant. The resulting F Ratios indicated no significant differences among groups when sex of participants was controlled for.

Although this study did not determine that there is a direct relationship between participation in adult enrichment courses and growth toward self-actualization, the evidence indicates that there were some developmental effects taking place. Error among the variables in this study proved to be the major hurdle which prevented the detection of any significant amount of these developmental effects.

Possible sources of error are as follows:

1. Vagueness of Terminology--Maslow's own definition of self-actualization is broad, general, and full of adjectives and, consequently, does not lend itself well to this kind of study unless there is an acceptable method of measurement.

2. The Personal Orientation Inventory--Although the POI is purported to be a reliable instrument for measuring self-actualization, it does not lend itself well to a field study application.

3. Different Teacher Personalities and Philosophies--There was no effort made to determine to what extent the teachers were self-actualized or if their levels of self-actualization had any effect upon growth or lack of growth of their students.

4. The Experimental Design--Campbell and Stanley's (1969) Quasi-Experimental Design Number Ten, The Non-Equivalent Control Group Design, was used in this study. Although this design controls for the effects of maturation, history, testing and instrumentation, one phenomenon--intrasession history--must be considered when drawing conclusions from this study. Intrasession history was controlled

for in the pretest phase since both experimental and control subjects were pretested simultaneously. During the posttest period, however, when the control subjects completed the posttest in the comfort (or discomfort) of their own homes, there is an opportunity for intra-session history to be in operation.

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APPENDIX A

PROGRAM PARTICIPANT SURVEY

PROGRAM PARTICIPANT SURVEY

Adult Education Programs, GTI

This survey is being made in conjunction with my doctoral studies to determine characteristics of the typical participant in GTI's Adult Enrichment Programs. Also, an effort will be made to determine the effectiveness of GTI's outreach program.

One part of the survey deals with a personality inventory. No part of the individual results will be identifiable to anyone other than my self. My own interest is in the class statistics of the survey analysis not in individual scores.

Your cooperation by completing this survey will be greatly appreciated.

1. _____
   (Social Security No.)

2. _____
   (Occupation)

3. _____
   (Spouse's Occupation)

4. Annual Family Income Range

   a. _____ Less than $5,000

   b. _____ $5,001-$10,000

   c. _____ $10,001-$15,000

   d. _____ $15,001-$20,000

   e. _____ $20,001-$25,000

   f. _____ Over $25,000

5. How did you first discover GTI's Adult Education Programs?

   a. _____ A friend told me about them.

   b. _____ Through reading a brochure which I received in the mail without requesting it.

   c. _____ Through the tabloid in the High Point Enterprise.

   d. _____ Through the insert in the Greensboro Ad Venture.

   e. _____ I was interested by the printed ad in the newspaper. Which paper? _____

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f. _____ I was interested by a T-V spot announcement about GTI. Which one? _____

g. _____ I was interested by a radio spot announcement about GTI. Which one? _____

h. _____ I was interested by a handout I received at a shopping mall. Which mall? _____

i. _____ Other (please specify)

6. For what reason(s) are you taking this course? (Please indicate priorities if you select more than one answer.)

a. _____ To gain a better insight of myself.

b. _____ To learn a marketable skill for part-time or full-time use.

c. _____ To get a break from the daily "grind."

d. _____ My spouse or friend suggested I take this course.

e. _____ To learn something I have always wanted to know about or how to do.

f. _____ To meet other people.

g. _____ To receive renewal credits.

h. _____ Other (please specify)

APPENDIX B

COURSE EVALUATION FORM

COURSE EVALUATION FORM

Adult Education Programs, GTI

Course Code _____ _____ Location

S M T W Th S Meeting Day(s)
(circle) _____ Meeting Time

Instructor _____ ___/___/___ Date of Evaluation
mo. day yr.

The purpose of this evaluation is to determine characteristics of this course and its instructor as viewed from your perspective. In the blanks provided, write the letter of the phrase which, in your opinion, best completes the statement.

_____ 1. When I registered, I had a specific goal that I expected this course to help me accomplish. This course:

a. Helped me to completely fulfill my goal.
b. Helped me to almost fulfill my goal (has started me well on the way toward fulfillment).
c. Did not come close to helping me fulfill my goal.

_____ 2. The instructor for this course:

a. Was enthusiastic about the subject.
b. Was fairly enthusiastic about the subject.
c. Was not enthusiastic about the subject.

_____ 3. The instructor:

a. Frequently was rude to class participants.
b. Was friendly and helpful.
c. Was not very friendly, but not rude either.
d. Was too friendly for the good of the class.

_____ 4. The method of instruction could best be described as:

a. Mainly lecture/demonstration with a small amount of class participation.
b. Mostly manipulative (hands-on/doing) with the instructor helping individuals as the need arose.
c. Mostly discussion with participants actively involved in give and take.

_____ 5. The instructor:

a. Frequently asked questions that required participants to think for themselves.
b. Did not ask many questions that required participants to think for themselves.

COURSE EVALUATION FORM, Page 2

_____ 6. My overall evaluation of this course is:

a. Excellent, I will highly recommend that others take it.
b. A good course--If asked, I would recommend it.
c. Fair--I have reservations about recommending it.
d. Poor--I would definitely not recommend it.

7. If your answer to number six (6) is either c or d, please state the reason(s) in the space provided so that we may make the necessary improvements.

8. If your answer to number six (6) is b, what improvement(s) would you suggest that, even if small in magnitude, might make the difference between your answering an a as opposed to b?

APPENDIX C

LETTER TO INSTRUCTORS

October 19, 1979

Dear

I appreciate your cooperation in supporting the survey which I conducted of your class in September. You need to be aware that there is a second part to the survey which I plan to conduct just prior to the end of the course. Please, if you get any forewarning that the attendance is going to rapidly decline, let me know. I would like to get as many repeat surveys as possible.

I would prefer that you not inform class participants that there will be a follow-up survey. If they are not expecting anything, the class will be able to be conducted as close to the normal situation as possible.

The tentative date for Part 2 of the survey for your class is _____. Please, let me know of any changes in your class schedule.

Thanks again for your cooperation!

Sincerely,

Wayne C. Eller, Assistant Dean
Adult Education Programs

d

APPENDIX D

COVER LETTER TO CONTROL

December 11, 1979

Dear

Thank you for agreeing to re-take the POI test which we discussed today on the phone.

As I mentioned, it is extremely important that I receive the completed answer sheet and test booklet no later than December 19, 1979. Remember, do not write in the test booklet itself.

Thank you again for your willingness to help in my educational research.

Sincerely,

Wayne C. Eller, Assistant Dean
Continuing Education Programs

d

APPENDIX E

AN ANALYSIS OF SCORES FROM THE Tc AND I SCALES OF THE POI AS OBTAINED THROUGH PRETEST TO POSTTEST ADMINISTRATIONS FOR THE EXPERIMENTAL GROUPS

Table 11

An Analysis of Scores from Tc and I Scales of POI as Obtained Through Pretest to Posttest Administrations for Course 3EAN Furniture Refinishing

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
AN1	77	91	15	15	92	106	+14	9/17/79	11/19/79
AN2	90	85	19	20	109	105	- 4	9/17/79	11/19/79
AN3	86	82	15	12	101	94	- 7	9/17/79	11/19/79
AN4	84	91	12	14	96	105	+ 9	9/17/79	11/19/79
AN5	83	91	21	18	104	109	+ 5	9/17/79	11/19/79
AN6	105	91	20	16	125	107	-18	9/17/79	11/19/79
AN7	92	85	19	18	111	103	- 8	9/17/79	11/19/79
Totals N = 7	617	616	121	113	738	729	- 9		

t = -.965

Table 12

An Analysis of Scores from Tc and I Scales of POI as Obtained Through Pretest to Posttest Administrations for Course 2EEE Investments for Profit

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score	Test Dates	
	Pre	Post	Pre	Post	Pre	Post	(Post - Pre)	Pre	Post
EE1	70	79	15	14	85	93	+ 8	9/13/79	10/25/79
EE2	78	86	14	16	92	102	+10	9/13/79	10/25/79
EE3	62	61	17	17	79	78	- 1	9/13/79	10/25/79
EE4	89	87	15	17	104	104	0	9/13/79	10/25/79
EE5	79	81	13	12	92	93	+ 1	9/13/79	10/25/79
EE6	83	95	19	20	102	115	+13	9/13/79	10/25/79
Totals N = 6	461	489	93	96	554	585	+31		

t = 2.140

Table 13

An Analysis of Scores from Tc and I Scales of the POI as Obtained Through Pretest to Posttest Administrations for Course 3EFW Gourmet Cooking

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
FW1	97	98	18	20	115	118	+ 3	9/18/79	11/27/79
FW2	112	117	20	21	132	138	+ 6	9/18/79	11/27/79
FW3	97	93	18	18	115	111	- 4	9/18/79	11/27/79
FW4	80	83	15	20	95	103	+ 8	9/18/79	11/27/79
FW5	91	93	17	13	108	106	- 2	9/18/79	11/27/79
FW6	76	73	18	13	94	86	- 8	9/18/79	11/27/79
FW7	65	58	11	10	76	68	- 8	9/18/79	11/27/79
FW8	63	74	9	13	72	87	+15	9/18/79	11/27/79
Totals N = 8	681	689	126	128	807	817	+10		

t = .431

Table 14

An Analysis of Scores from Tc and I Scales of the POI as Obtained Through Pretest to Posttest Administrations for Course 3EGA Holiday Cooking

Student Code	I Scores Pre	I Scores Post	Tc Scores Pre	Tc Scores Post	I + Tc Scores Pre	I + Tc Scores Post	I + Tc "D" Score (Post - Pre)	Test Dates Pre	Test Dates Post
GA1	82	82	17	19	99	101	+ 2	10/24/79	11/27/79
GA2	87	84	18	18	105	102	- 3	10/24/79	11/27/79
GA3	Not complete - -		Unusable		Sample - - - - - - - - - - - - - - - -			10/24/79	11/27/79
GA4	85	85	17	16	102	101	- 1	10/24/79	11/27/79
GA5	77	84	21	20	98	104	+ 6	10/24/79	11/27/79
GA6	70	77	12	16	82	93	+11	10/24/79	11/27/79
GA7	89	85	16	16	105	101	- 4	10/24/79	11/27/79
Totals N = 6	490	497	101	105	591	602	11		

t = 1.658

Table 15

An Analysis of Scores From Tc and I Scales of the POI as Obtained Through Pretest to Posttest Administrations for Course 3EHD Assertiveness Training

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score	Test Dates	
	Pre	Post	Pre	Post	Pre	Post	(Post - Pre)	Pre	Post
HD1	105	103	15	16	120	119	- 1	9/18/79	11/27/79
HD2	94	104	16	21	110	125	+15	9/18/79	11/27/79
HD3	90	83	13	11	103	94	- 9	9/18/79	11/27/79
HD4	73	87	12	11	85	98	+13	9/18/79	11/27/79
HD5	82	85	14	11	96	96	0	9/18/79	11/27/79
HD6	88	90	19	18	107	108	+ 1	9/18/79	11/27/79
HD7	93	99	21	21	114	120	+ 6	9/18/79	11/27/79
HD8	79	78	13	17	92	95	+ 3	9/18/79	11/27/79
Totals N = 8	704	729	123	126	827	855	+28		

T = 1.272

Table 16

An Analysis of Scores From Tc and I Scales of the POI as Obtained Through Pretest to Posttest Administrations for Course 3EWG Wildwater Techniques II

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
WG1	96	94	19	18	115	112	- 3	9/20/79	11/8/79
WG2	93	93	17	17	110	110	0	9/20/79	11/8/79
WG3	87	94	14	21	101	115	+14	9/20/79	11/8/79
WG4	91	94	19	18	110	112	+ 2	9/20/79	11/8/79
WG5	87	96	19	20	106	116	+10	9/20/79	11/8/79
Totals N = 5	454	471	88	94	542	565	+23		

t = 1.443

Table 17

An Analysis of Scores from Tc and I Scales of the POI as Obtained Through Pretest and Posttest Administrations for Course 3ETC Advanced Home Landscape Design

Student Code	I Scores		Tc Scores		I + Tc Scores		I + Tc "D" Score (Post - Pre)	Test Dates	
	Pre	Post	Pre	Post	Pre	Post		Pre	Post
TC1	93	92	15	16	108	108	0	9/18/79	12/4/79
TC2	82	80	16	15	98	95	- 3	9/18/79	12/4/79
TC3	76	83	11	11	87	94	+ 7	9/18/79	12/4/79
TC4	81	96	20	21	101	117	+16	9/18/79	12/4/79
TC5	63	69	12	13	75	82	+ 7	9/18/79	12/4/79
TC6	88	90	21	21	109	111	+ 2	9/18/79	12/4/79
TC7	74	79	17	19	91	98	+ 7	9/18/79	12/4/79
Totals N = 7	557	589	112	116	669	705	+36		

t = 2.193

APPENDIX F

CLASS ATTENDANCE--EXPERIMENTAL SUBJECTS

RAW DATA

CLASS ATTENDANCE
EXPERIMENTAL SUBJECTS

Student Code	Total # Class Meetings	Total # Meetings Attended	Student Code	Total # Class Meetings	Total # Meetings Attended
AE1	24	19	FW1	12	9
AE2	24	23	FW2	12	11
AE3	24	21	FW3	12	9
AE4	24	20	FW4	12	8
AE5	24	18	FW5	12	12
			FW6	12	10
AN1	12	11			
AN2	12	8	GA1	6	5
AN3	12	10	GA2	6	5
AN4	12	9	GA3	6	6
AN5	12	7	GA4	6	5
AN6	12	5	GA5	6	2
AN7	12	9	GA6	6	5
			GA7	6	6
AZ1	14	14			
AZ2	14	13	HD1	14	14
AZ3	14	14	HD2	14	7
			HD3	14	14
EE1	8	6	HD4	14	14
EE2	8	7	HD5	14	11
EE3	8	4	HD6	14	13
EE4	8	5	HD7	14	10
EE5	8	8	HD8	14	11
EE6	8	5			
			WG1	20	17
FR1	4	4	WG2	20	16
FR2	4	3	WG3	20	13
FR3	4	4	WG4	20	15
FR4	4	4	WG5	20	18
FR5	4	4			
FR6	4	3	TC1	14	12
FR7	4	4	TC2	14	11
FR8	4	4	TC3	14	13
FR9	4	4	TC4	14	13
FR10	4	4	TC5	14	12
FR11	4	3	TC6	14	13
FR12	4	4	TC7	14	13
FR13	4	3			
FR14	4	4			