LEVEL OF MANIFEST ANXIETY AS A PREDICTOR OF ATTITUDE CHANGE THROUGH GROUP VOCATIONAL COUNSELING

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

Curtis Thomas Liston, Jr., B. A., M. Ed.

Denton, Texas

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This study was conducted to compare changes in self-concept and dogmatism among high school subjects at three levels of manifest anxiety following group vocational counseling.

The related literature includes studies of anxiety as it affects self-concept, dogmatism, and group activities. Studies of the relationship between self-concept and dogmatism are also reported.

The measuring instruments for this study were the Taylor Manifest Anxiety Scale, the Tennessee Self-Concept Scale, Counseling Form, and the Rokeach Dogmatism Scale, Form E. The Taylor was used to define the three levels of manifest anxiety. The Self-Concept and Dogmatism Scales were used as measurements of change. The pretest was administered at the first meeting and the posttest at the twelfth. This allowed for ten group vocational counseling sessions.

The subjects for the study were chosen from 141 junior and senior students of a single high school community. The total population was divided into five equal groups according
to their manifest anxiety scores. The second and fourth highest groups were eliminated to insure the mutual exclusiveness of the anxiety levels. Scheduling became a prime factor in selection of subjects, but random selection was used when possible.

The subjects participated in two group sessions each week for five weeks. The sessions were client-centered, with no preplanned activities. The students were allowed to choose their own subjects as long as they were related to some aspect of vocational choice. The groups varied in their willingness to accept the freedom and the order of the subjects discussed. A description of the groups and their activities is included.

The Scheffe test of significance was used to analyze the data and test the hypotheses. The .05 level of confidence was used as a basis for acceptance or rejection of the null hypotheses.

Hypotheses 1 and 2 predicted that the mean change self-concept score for medium manifest anxiety subjects would be significantly greater than the mean change self-concept scores for the high and low manifest anxiety subjects respectively. These hypotheses were rejected.

Hypothesis 3 predicted that the mean change self-concept scores for the high and the low manifest anxiety subjects would not be significantly different. This hypothesis was accepted.
Hypotheses 4 and 5 predicted that the mean change dogmatism score for the medium manifest anxiety subjects would be significantly greater than the mean change dogmatism score for the high and low manifest anxiety subjects respectively. These hypotheses were rejected.

Hypothesis 6 predicted that the mean change dogmatism scores for high and low manifest anxiety subjects would not be significantly different. This hypothesis was accepted.

Conclusions: (1) A subject's manifest anxiety level is not a predictor of change in self-concept or dogmatism following group vocational activities. (2) Low manifest anxiety high school students had a higher self-concept than high manifest anxiety students. (3) Medium manifest anxiety high school students were more dogmatic than low manifest anxiety students.

Recommendations: (1) For similar studies, varying time of pretest activities and total and frequency of sessions. (2) For follow-up studies of trends noted but not proven in the study.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES ..........</th>
<th>iv</th>
</tr>
</thead>
</table>

## Chapter

<table>
<thead>
<tr>
<th>I. INTRODUCTION ........</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of the Problem</td>
<td></td>
</tr>
<tr>
<td>Hypotheses</td>
<td></td>
</tr>
<tr>
<td>Definition of Terms</td>
<td></td>
</tr>
<tr>
<td>Limitations</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. RELATED LITERATURE</th>
<th>9</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>III. METHOD ...........</th>
<th>27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of Subjects</td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td></td>
</tr>
<tr>
<td>Description of Counseling Groups</td>
<td></td>
</tr>
<tr>
<td>Description of Measuring Instruments</td>
<td></td>
</tr>
<tr>
<td>Treatment of Data</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IV. RESULTS AND DISCUSSIONS</th>
<th>46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Concept</td>
<td></td>
</tr>
<tr>
<td>Dogmatism</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>V. SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS</th>
<th>62</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>APPENDIX ..........</th>
<th>73</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>BIBLIOGRAPHY ..........</th>
<th>81</th>
</tr>
</thead>
</table>
LIST OF TABLES

Table | Page
--- | ---
I. Distribution of Total Population by Manifest Anxiety Score | 28
II. Distribution of Subjects by Class Period They Were Available for Counseling | 30
III. Distribution of Subjects Within Counseling Groups by Anxiety Level | 31
IV. Distribution of Subjects Within Counseling Groups by Variables of Sex, Race, Grade Classification, and Age | 32
V. Distribution of Subjects Within Anxiety Levels by Variables of Sex, Race, Grade Classification, and Age | 33
VI. Analysis of Variance of Mean Difference in Change in Self-Concept Scores for Three Anxiety Levels | 47
VII. Mean Changes and Differences Between Mean Changes in Self-Concept for Manifest Anxiety Groups | 48
VIII. Means, Mean Differences, and Critical Difference for Pretest Scores in Self-Concept with Respect to Three Levels of Manifest Anxiety | 50
IX. Mean Scores, Standard Deviation, and t Values for Change in Self-Concept Scores of Subjects at Three Levels of Manifest Anxiety | 51
X. Analysis of Variance of Mean Differences in Change in Dogmatism for Three Anxiety Levels | 53
XI. Mean Changes and Differences Between Mean Changes in Dogmatism for Three Manifest Anxiety Levels | 54
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>XII. Means, Mean Differences and Critical Differences for Pretest Scores in Dogmatism with Respect to Three Levels of Manifest Anxiety</td>
<td>56</td>
</tr>
<tr>
<td>XIII. Mean Scores, Standard Deviation and ( t ) Values for Change in Dogmatism Scores of Subjects at Three Levels of Manifest Anxiety</td>
<td>57</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The effect of anxiety on an individual has been a subject of great concern and study. It would seem to be especially significant at this time in what Auden (1) has called "the Age of Anxiety." Never have there been more reasons for people being anxious. The threat of war and annihilation, along with other smaller but important personal threats, is ever present. What is anxiety, and why do some react to it to a greater degree than others?

Kierkegaard felt anxiety was universal and inevitable:

Just as a physician might say that there lives perhaps not one single man who is in perfect health, so one might say perhaps that there lives not one single man who after all is not to some extent in despair, in whose innermost parts there does not dwell a disquietude, a perturbation, a discord, an anxious dread of an unknown something, or of a something he does not even dare to make acquaintance with, dread of a possibility of life, or dread of himself, so that, after all, as physicians speak of a man going about and carrying a sickness of the spirit, which only rarely and in glimpses . . . gives evidence of its presence within . . . (6, p. 155).

Portnay also felt that anxiety was a natural phenomenon when he said, "Any attempt to define the nature and meaning of anxiety must begin with the statement that anxiety is a natural phenomenon which the individual experiences when
values essential to his existence, his sense of being, and his identity are threatened" (9, p. 309).

Freud also spent much time trying to determine the cause of anxiety and in so doing changed his theory regarding cause and effect of anxiety at least three times. He first theorized that the energy of a repressed impulse was turned into anxiety, but later established the ego as the "true abode of anxiety," (3, p. 84) and repression as not the cause but the effect of anxiety.

Rollo May has the following to say about anxiety: "Anxiety is the apprehension cued off by a threat to some value which the individual holds essential to his existence as a personality" (8, p. 101). May would generally agree with a statement by Lecky: "The individual's values are organized into a single system, the preservation of whose integrity is essential. The nucleus of the system, around which the rest of the system revolves, is the individual's valuation of himself" (7, p. 82).

Goldstein (4) describes anxiety as simply the subjective experience of danger to existence. Anxiety is differentiated from fear in that fear is directed toward an object, while the source of anxiety may not be determinable.

Coleman, without trying to explain anxiety, defines it as follows: "A state of emotional tension characterized by apprehension and fearfulness: psychic pain" (2, p. 657).
It is doubtful that anyone will disagree with this definition, especially those who have suffered from anxiety.

What are the effects of anxiety on an individual's view of himself or his self-concept? How does anxiety affect his attitude toward others? Horney answers these questions in this way:

Anxiety has definite implications for the person's attitude toward himself and others. It means emotional isolation, all the harder to bear as it concurs with a feeling of intrinsic weakness of the self. It means a weakening of the very foundations of self-confidence (5, p. 96).

Anxiety has many influences on the social relations of the individual. According to Horney (5), he can attack, withdraw, or submit, any of which would hamper the social interaction of the individual. The relationship with others would be marked with suspicion and mistrust. It is evident that the behavior of the individual under the stress of anxiety is abnormal and not conducive to his own best interests or wishes.

There appear to be three possible outcomes in a study of anxiety as it affects changes in behavior or attitude. (1) It acts as a positive factor, motivating the individual to change. (2) It acts as a deterrent, restricting his ability to change. (3) It has no effect on the individual's ability to change.

Within the framework of this research, changes in two areas were tested. These areas were self-concept and dogmatism. The Tennessee Self-Concept Scale, Counseling Form.
was used to measure changes in the individual's view of himself, and the Rokeach Dogmatism Scale, Form E, to measure changes in the individual's permissiveness or rigidity.

If it can be shown that the individuals within certain levels of manifest anxiety drive make no significant positive changes in behavior or attitude as measured by these instruments, the advisability of placing them in group vocational counseling activities could be questioned. An investigation of anxiety as a variable affecting change through group vocational counseling will help school counselors in assigning students to various types of vocational counseling activities.

Statement of the Problem

The problem was a comparative study of the changes in self-concept and dogmatism between groups of subjects at three mutually exclusive manifest anxiety levels, following participation in group vocational counseling activities.

The specific purposes of the study were

1. To compare mean change in self-concept between a group of individuals demonstrating a high level of manifest anxiety and a group of individuals demonstrating a medium level of manifest anxiety, following participation in group vocational counseling.

2. To compare mean change in self-concept between a group of individuals demonstrating a high level of manifest
anxiety and a group of individuals demonstrating a low level of manifest anxiety, following participation in group vocational counseling.

3. To compare mean change in self-concept between a group of individuals demonstrating a medium level of manifest anxiety and a group of individuals demonstrating a low level of manifest anxiety, following participation in group vocational counseling.

4. To compare mean change in dogmatism between a group of individuals demonstrating a high level of manifest anxiety and a group of individuals demonstrating a medium level of manifest anxiety, following participation in group vocational counseling.

5. To compare mean change in dogmatism between a group of individuals demonstrating a high level of manifest anxiety and a group of individuals demonstrating a low level of manifest anxiety, following participation in group vocational counseling.

6. To compare mean change in dogmatism between a group of individuals demonstrating a medium level of manifest anxiety and a group of individuals demonstrating a low level of manifest anxiety, following participation in group vocational counseling.
Hypotheses

1. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater mean increases in self-concept as measured by the Tennessee Self-Concept Scale, Counseling Form, than the group designated as having a high level of manifest anxiety.

2. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater mean increases in self-concept as measured by the Tennessee Self-Concept Scale, Counseling Form, than the group designated as having a low level of manifest anxiety.

3. There will be no significant difference in changes in self-concept as measured by the Tennessee Self-Concept Scale, Counseling Form, between the group designated as having high levels of manifest anxiety and the group designated as having low levels of manifest anxiety.

4. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater decreases in dogmatism as measured by the Rokeach Dogmatism Scale, Form E, than will the group designated as having a high level of manifest anxiety.

5. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater decreases in dogmatism as measured by the Rokeach Dogmatism Scale, Form E, than will the group designated as having a low level of manifest anxiety.
6. There will be no significant difference in changes in dogmatism as measured by the Rokeach Dogmatism Scale, Form E, between the group designated as having a high level of manifest anxiety and the group designated as having a low level of manifest anxiety.

Definition of Terms

1. Group vocational counseling: The utilization of group techniques in assisting individuals in studying all aspects of vocational selection and their effects on the individual and his system.

2. Anxiety: Painful uneasiness of mind respecting an impending or anticipated ill.

3. Dogmatism: A relatively closed system of beliefs and disbeliefs regarding reality.

4. Self-concept: The way an individual sees himself. His evaluation of his worth to himself, his family, his community, his entire system.

Limitations

Only junior and senior students from the only high school of a central Texas community of approximately 7,700 were selected as subjects in the study. Students were chosen from one school and two classes in order to control for major differences in socio-economic factors, age, and educational background.


CHAPTER II

RELATED LITERATURE

A study of anxiety as it affects all facets of life would be impossible, so only its effects on group activities and relation to self-concept and dogmatism are discussed.

In studying the effects of anxiety on learning, Taylor (39) states that, within the Hullian concept, anxiety would serve as a drive in learning situations. Taylor says, "... in simple noncompetitional experimental arrangements involving only a single habit tendency, the performance level of high-drive subjects should be greater than that for low-drive groups."

Taylor reports that subjects with high manifest anxiety scores were superior to subjects making low scores in trials of learning paired associates (41). Spence and Farber (36) report that anxious subjects as measured by the Taylor Manifest Anxiety Scale perform better than non-anxious subjects in some simple conditioning experiments. However, this appears to hold true only on simple learning tasks.

Taylor and Spence (42) report that in tasks of serial learning the opposite occurred. The high-anxious subjects were inferior to low-anxious subjects. Sremson (30) reports
on a study of boys in an academic situation of varying anxiety levels. He reports that the highly anxious boy is less academically adequate, with severely impaired concentration, than the less anxious boy.

In a study that typifies investigation comparing anxiety to academic achievement, Fein (9) reports on achievement in nursing schools as it is related to anxiety. He found that, instead of a linear relationship in which the higher the anxiety the poorer the achievement, he got a curvilinear relationship. The point is that anxiety acts as motivation to a certain degree and then begins to be a deterrent. Moderate anxiety is a positive drive factor, while excessive anxiety is a liability.

Gynther (14) studied the communicative efficiency of individuals at various anxiety levels and found that the highly anxious individual was markedly unable to communicate in a face-to-face situation. The author concluded that anxiety interferes with ability to communicate. This would be a liability to the highly anxious individual in group activities, because communication is an important part of group dynamics.

Anxiety apparently affects another important aspect of group dynamics. Schacter (31) found that anxious individuals tend to have a greater need for affiliation than those of lower anxiety. As anxiety level of the individual
increased, the need for affiliation also increased, with the highly anxious subjects seeking group support under stress.

Lamb (20) studied change in self-concept and dogmatism following participation in group counseling, but he used internal-external drive as his predictor. He compared the effectiveness of directive and client-centered group activities with respect to their reward posture. He used forty college students equally divided between the internal and external subjects. The subjects participated in six counseling sessions, with half of each group being in a directive group and the other half being in a client-centered group. The external subjects in the client-centered group made the most dramatic change in self-concept, with a mean score change of 14.4, while the other groups changed insignificantly. The greatest change in dogmatism was noted in the internal subjects in the directive group. They became more dogmatic, with a change of nearly 7 points. The external subjects in the client-centered group made the greatest positive change by decreasing their mean score by nearly 5 points. None of the changes was statistically significant.

Lamb's conclusion was that client-centered counseling was more effective in facilitating positive change in self-concept than directive group counseling.

In studying the relationship between dogmatism and other human factors, including anxiety, Fruchter, Ackeach,
and Novak (13) administered a battery of ten scales to 153 subjects at Michigan State University. Among the scales were the dogmatism scale and the anxiety scale. The scores were intercorrelated by the Pearson product-moment method. The anxiety and dogmatism scales had the highest loadings on the first rotated factor. This shows that dogmatism has a factorial content similar to the factorial content of anxiety.

Fillenbaum and Jackman (12) investigated the relationship between dogmatism and anxiety as related to performance in a problem-solving situation. Using seventy-three introductory psychology students, they administered the dogmatism scale and an anxiety scale obtained from a factor analysis of responses on the Minnesota Multiphasic Personality Inventory. The subjects were also given Rokeach's Denny Doodlebug problem. A Pearson product-moment correlation of .49 (p < .01) was obtained between the dogmatism and anxiety scores.

Using 154 college males from six different fraternities at the University of Michigan, Pilisuk (26) studied the relationship between anxiety, self-acceptance and open-mindedness. The instruments used were the Taylor Manifest Anxiety Scale, Self Ideal Index of Self Acceptance, Tolerance of Ambiguity Scale, Intellectual Non-Conformity Test, Authoritarian Defense Scale, Unpleasant Situation Test, and
the Defensive Denial Test. Intercorrelations were calculated, and anxiety was shown to be negatively correlated to self-acceptance. The Taylor Manifest Anxiety Scale had a small but significant positive correlation to Authoritarian Defense and Tendency to Reject Threat and a small but significant negative correlation to Tolerance for Ambiguity, Intellectual Non-Conformity and Tendency to Accept Threat.

In studying the hypothesis that there was a relationship between anxiety and dogmatism, Rokeach (29) used students and workers in both England and the United States as subjects. The instruments used were the Dogmatism Scale and a thirty-item anxiety scale which was taken from the Minnesota Multiphasic Personality Inventory, the Taylor Manifest Anxiety Scale, or similar scale. The correlations ranged from .36 to .64, and all were significant at the .01 level. The results appear to support the hypothesis. The conclusion was that people scoring high on an anxiety scale will also score high on a dogmatism scale.

Using the Children's Manifest Anxiety Schedule, the Children's Authoritarianism Scale, along with a religious observance scale and the verbal scale of the Wechsler Intelligence Scale for Children, Siegman (34) studied the authoritarian attitude in children. He studied such variables as age, I.Q., anxiety, and parental religious attitudes. The 83 children ranged in age from nine to thirteen. It
was shown that the children scoring high on the Authoritarianism Scale scored significantly higher on the anxiety test than did their lower-scoring counterparts. This indicates that highly authoritarian children tend to be anxious or are authoritarian because they are anxious.

Byrne, Blaylock, and Goldberg (3) used seventy-six introductory psychology students at the University of Texas and 500 University of Illinois students in order to study the relationship between dogmatism and certain defense mechanisms. To measure dogmatism, an instrument combining Dogmatism Scale items and Opinionation Scale items was employed. The Repression-Sensitization Scale was used to measure differences in responding to threat. The results show that dogmatic persons utilize repression defenses more than non-dogmatic persons. It was suggested that dogmatic beliefs may have constituted a defense against anxiety, but the mechanisms used were intellectualization and sensitization instead of repression and denial.

Pannes (24) studied the relationship between dogmatism and degree of self-acceptance. The Dogmatism Scale and the Bills-Silverman Index of Self Acceptance were used to measure these variables. Six hundred and seventy-five Connecticut students in grades seven through twelve were used to test his hypotheses. The results showed a small but significant positive correlation between high dogmatism and high self-acceptance.
Schulze (32) studied the validity of the shortened form of the Dogmatism Scale. The instruments used included the Form E of the Dogmatism Scale, the Henman Anxiety Scale, and a shortened version of the Dogmatism Scale. It was hypothesized that the two dogmatism scales would have a comparable coefficient of correlation with the anxiety scale. They were, as predicted, significant at the .05 level. Two groups were used to test the hypothesis, with the Welch Anxiety Scale used the second time. It was concluded that the shortened Dogmatism Scale was reliable and that a relation did exist between anxiety and dogmatism.

Singer and Feshbach (35) studied the relationship of anxiety, authoritarianism, and response to frustration, using 147 male students of an introductory psychology course at a large eastern university. The California P Scale, the Taylor Manifest Anxiety Scale, and the Child and Waterhouse Scale of Frustration were administered each subject. A Pearson product-moment correlation between the anxiety scale and scores on the authoritarianism scale was computed, showing a significance at the .01 level. The conclusion drawn was that anxiety and authoritarianism scales are negatively correlated with the Child and Waterhouse Scale of Frustration.

Davis and Eriksen (5) investigated the relationship between authoritarianism and anxiousness. Twenty male undergraduates were subjects and the California P Scale and
Taylor Manifest Anxiety Scale the instruments. A significant correlation was hypothesized and confirmed. A correlation of .69, which is significant at the .01 level, was found, indicating that anxiety and authoritarianism are positively related.

A study by Bendig and Hountras (2) examined the relationship between authoritarianism, anxiety, and attitudes of students toward departmental control. The instruments were Cattell's IPAT Anxiety Scale, the Instructional Control Attitude Scale, and a shortened version of the California F Scale. Product-moment correlation average of .16 was found between anxiety and authoritarianism, which is significant at the .05 level.

A study of geographical mobility and its relationship to dogmatism, anxiety, and age was conducted by Sticht and Fox (38). The hypothesis was that individuals who tended to move frequently would be more anxious and dogmatic. Subjects were ninety introductory psychology students at the University of Arizona. The instruments were the Dogmatism Scale, the Taylor Manifest Anxiety Scale, and a geographical mobility questionnaire. They found that their results reinforced their original hypothesis.

In a study by Zagona and Zurcher (50), it was construed that high dogmatic groups would be more leader oriented, show a preference for structure in the classroom, and become insecure and waver in conviction when challenged by
an authority figure. The subjects were thirty individuals scoring the highest and thirty scoring the lowest on the Dogmatism Scale. The procedure for evaluation was by observation in classroom situations.

Scott (33) examined human drawings by children in her study of anxiety, and evaluated their self-concept. She concluded that there may be relationships, and trends were shown, but the relationship was not strong enough so that she could state a real existing relationship.

Hauser (15) used a multiple correlation approach in studying the relationship of self-concept to security, anxiety, and rigidity. He concluded that there was a significantly higher correlation between the level of self-concept and various combinations of rigidity, security, and anxiety than between stability of self-concept and these same combinations of variables.

Fiedler, Dodge, Jones, and Hutchins (11) found significant correlations between self-esteem and self-satisfaction and between each of the tested self-concept reports and the Taylor Manifest Anxiety Scale score.

In studying the correlates of manifest anxiety in perceptual reactivity, rigidity, and self-concept, Cowen, Heilizer, Axelrod, and Alexander (4) found that scores from the Taylor Manifest Anxiety Scale were associated with self-acceptance and self-ideal discrepancy as measured by Heil's Index of Adjustment and Values.
Thomas (43) used thirty-six randomly selected junior, senior, and graduate students at North Texas State University to study the relationship between self-ideal discrepancy and anxiety. He used the Cattell IPAT Anxiety and Bell's Index of Adjustment and Values. The results indicate a significant relationship between anxiety and self-ideal discrepancy, with the high-anxiety subjects showing a much higher discrepancy score than the low-anxiety subjects.

In a study of dogmatism as it is related to anxiety and self-ideal discrepancy, Davis (6) found a significant positive correlation ($r = .318, p < .01$) between self-ideal discrepancy and anxiety. He felt that these results were congruent with the current research findings and could be interpreted as supporting the position that anxiety is produced when the self-concept is threatened. A multiple correlation technique carried out between dogmatism, self-ideal discrepancy, and anxiety ($r = .27; p < .05$) offered limited support. In his final conclusions, Davis felt that his study shows there is no direct relationship between dogmatism and anxiety, but admitted that the IPAT Anxiety Scale may not have measured all facets of anxiety. It is also noted that sample differences and recent social changes may have been factors in the more dogmatic subjects' high levels of self-ideal discrepancy as compared to a relationship in the opposite direction found in other studies.
In his study of fourth, fifth, and sixth grade children, Lipsett (21) found by comparing the Children's Manifest Anxiety Scale scores and self-concept scores that the high-anxiety subjects showed low self-concepts in all sex and grade combinations.

Feldhusen and Thurston (10) investigated the relationship between anxiety and self-concept by administering the Children's Manifest Anxiety Scale to fifth graders and selecting thirty-two low and high subjects for the two anxiety groups. School and clinical psychologists interviewed each child and rated him on emotional adjustment, achievement in relation to capacity, integration of self-concept, and need for psychotherapy. The group of low-anxiety children had significantly higher mean scores on integration of self-concept than the highly anxious children.

Walvoord (45) concluded in his study of "Anxiety and Its Relationship to Self-Variables in College Students" that the literature shows the high-anxiety subject is more self-deprecatory, more preoccupied, and generally less content with himself than his low-anxiety counterpart.

In Schacter's (31) study of the psychology of affiliation, he notes that anxious individuals tend to have a greater need for affiliation than individuals of lower anxiety. The more anxious need more group support and are less able to function autonomously in stressful situations. As anxiety increased, the measured need for affiliation also
increased, and it became evident that these individuals have a greater need to be with others in ambiguous or threaten-
ing situations.

Reiter (28) studied the relationships around four meas-
ures of anxiety. He administered the Manifest Anxiety Scale, the Aarason Test Anxiety Questionnaire, the 16 P. F. and Page Fantasy Scale to seventy-six male and female undergrad-
uates. He found that the correlations among the tests were significant, but the magnitude of the correlations suggested that the tests may measure different facets of anxiety. He considers the 16 P. F. and the Manifest Anxiety Scale as measures of general anxiety.

Stanton (37) studied the Taylor Manifest Anxiety Scale, using 132 male and 108 female undergraduates. He tested them under stress and non-stress experimental conditions. He had hypothesized that the Manifest Anxiety Scale measured emotional reactivity and not chronic anxiety, and felt that this hypothesis was supported.

Puddy (27), in his study of dogmatism, anxiety, and attitudes toward the Vietnam War, used 104 male students at North Texas State University. There were 45 freshmen, 23 sophomores, 18 juniors, and 15 seniors. Their ages ranged from 17 to 37, with the mode being 19. He found a signifi-
cant positive relationship between anxiety and dogmatism.

In a study closely related to Puddy's, Williams (47) found that educational-vocational counseling restores a
normal level of adjustment and degree of congruence among the client's views of himself, his ideal self, and other persons. He notes that, prior to counseling, the clients showed a lower adjustment level and less overall concept congruence than did non-clients. However, following counseling, the adjustment level and overall concept congruence of these two groups were not significantly different. Over a four-month follow-up period, adjustment level remained constant.

In summarizing the literature, there appears to be a relationship between anxiety, dogmatism, and self-concept. The high-anxiety individual is described as having a lower self-concept and being more dogmatic than his low-anxiety counterpart. Kaplan (18) says that anxiety is a normal and necessary emotion, but how anxiety affects the individual depends on his ego strength. Kirscht and Dilleboy (19) feel that anxiety is a focal point in the hypothetical construct of dogmatism, since dogmatic people are more anxious and susceptible to anxiety. Byrne, Blaylock, and Goldberg (3) define dogmatism as a defense against anxiety. Rokeach goes further by concluding that anxiety and dogmatism are "part of a single psychological factor" (29, p. 349).
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHOD

Description of Subjects

The subjects used in this study were 45 high school juniors and seniors selected from an available population of 141. The total population consisted of all eleventh and twelfth grade students with one free period a day for group counseling.

The Taylor Manifest Anxiety Scale has no defined bands of scores associated with various levels of manifest anxiety. In a study using high school students and the Taylor Manifest Anxiety Scale, Jones (4) used scores of 19-40 for high anxiety, 14-18 for medium anxiety, and 0-12 for low anxiety. These bands of scores were considered and used as a guide, but the scores from the available population were used to define bands of scores for specific levels of anxiety for this study.

The following steps were taken to define three mutually exclusive anxiety levels, select the subjects from the available population to be used in this study, and organize five counseling groups of ten subjects each.

1. The total population was asked to complete individual questionnaires, including the Taylor Manifest Anxiety

27
Scale. The students were not informed as to the use of the instrument but were told that the information would be treated with complete confidence.

2. The Taylor Manifest Anxiety Scale was scored, and the students' names were listed in descending order of the anxiety scores and alphabetically within groups of equal scores. Table I depicts the range of manifest anxiety scores and the frequency of each score used in selecting and defining the three manifest anxiety levels for this study.

TABLE I

DISTRIBUTION OF TOTAL POPULATION BY MANIFEST ANXIETY SCORE

<table>
<thead>
<tr>
<th>Anxiety Score</th>
<th>Frequency</th>
<th>Anxiety Score</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>1</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>31</td>
<td>0</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>30</td>
<td>3</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>29</td>
<td>4</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>26</td>
<td>4</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>22</td>
<td>4</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. In order to define three mutually exclusive anxiety levels for use in the study, the total population was divided into five equal groups. The available population of 141 could not be equally divided into five groups. Therefore, one subject was randomly selected and removed from the study. The remaining subjects were divided into five groups of 28 individuals each.

4. From the list of the total population, the twenty-eight subjects scoring the highest on the Manifest Anxiety Scale and the twenty-eight scoring the lowest on that scale were designated as high and low anxiety subjects respectively. The frequency distribution of the subjects allowed for the selection of these groups without use of random procedures. The median manifest anxiety score was 13, and the frequency of this score was four. By taking these four subjects and twelve subjects with next higher manifest anxiety and twelve with next lower manifest anxiety scores, the medium anxiety level was defined. A table of random numbers was used to select subjects from the extreme scores where the frequency exceeded the required number. This procedure produced three groups of twenty-eight subjects whose manifest anxiety scores were mutually exclusive. The high anxiety subjects' scores ranged from 32 through 21, the medium anxiety scores ranged from 15 through 11, and the low anxiety subjects scored from 7 through 2.
5. Five counseling groups of ten subjects each were organized from the previously selected students. In the final statistical analysis, the test data from only forty-five of the subjects would be used, but the extra five would help to guarantee that fifteen subjects at each anxiety level completed the study. In selecting the fifty subjects, their availability to participate in group counseling was considered. The distribution of the eighty-four subjects by class period and anxiety level is shown in Table II.

**TABLE II**

**DISTRIBUTION OF SUBJECTS BY CLASS PERIOD THEY WERE AVAILABLE FOR COUNSELING**

<table>
<thead>
<tr>
<th>Class Period</th>
<th>High Anxiety</th>
<th>Medium Anxiety</th>
<th>Low Anxiety</th>
<th>Total Per Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>19</td>
</tr>
</tbody>
</table>

| Total        | 28           | 28             | 28          | 84              |

The subjects in the second and third periods could not be used because neither period had ten subjects available
to form a counseling group. After eliminating these twelve subjects, seventy-two remained from which to select the final fifty. After a study of the distribution of subjects in Table II, two counseling groups were formed from the twenty-four subjects in period one, and one counseling group was formed from each of the fourth, fifth, and sixth periods.

6. In selecting the fifty group participants and organizing the counseling groups, an attempt was made to balance the distribution of the groups with respect to anxiety level. In only two cases were there more than four subjects from one anxiety level in a counseling group. If more than one individual was available, a random selection was made. Table III shows the distribution of subjects within counseling groups by manifest anxiety level.

**TABLE III**

**DISTRIBUTION OF SUBJECTS WITHIN COUNSELING GROUPS BY ANXIETY LEVEL**

<table>
<thead>
<tr>
<th>Group</th>
<th>Class Period</th>
<th>High Anxiety</th>
<th>Medium Anxiety</th>
<th>Low Anxiety</th>
<th>Total Per Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>E</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>..</td>
<td>16</td>
<td>17</td>
<td>17</td>
<td>50</td>
</tr>
</tbody>
</table>
7. The distribution of subjects by the variables of sex, race, grade classification, and age is shown in Table IV. No attempt was made to control for these factors, but a review of the table shows an equal balance for sex and grade, with the races being almost equally balanced. The age factor approaches the mean of seventeen, with a nearly equal number above and below this figure.

TABLE IV

DISTRIBUTION OF SUBJECTS WITHIN COUNSELING GROUPS BY VARIABLES OF SEX, RACE, GRADE CLASSIFICATION, AND AGE

<table>
<thead>
<tr>
<th>Group</th>
<th>Sex</th>
<th>Race</th>
<th>Grade</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>W</td>
<td>B</td>
</tr>
<tr>
<td>A</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>E</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>25</td>
<td>24</td>
<td>26</td>
</tr>
</tbody>
</table>

8. After the group vocational counseling activities were completed, two high, two medium, and one low anxiety subject were selected to be eliminated from the statistical study. One medium anxiety subject failed to finish the counseling and posttesting activities and was automatically eliminated, while a random procedure was used to select the
other four. The forty-five remaining subjects were equally divided by manifest anxiety level, and the distribution with respect to the variables of sex, race, grade classification, and age is shown in Table V.

**TABLE V**

DISTRIBUTION OF SUBJECTS WITHIN ANXIETY LEVELS BY VARIABLES OF SEX, RACE, GRADE CLASSIFICATION, AND AGE

<table>
<thead>
<tr>
<th>Anxiety Level</th>
<th>Sex</th>
<th>Race</th>
<th>Grade</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>3 12</td>
<td>8 7</td>
<td>10 5</td>
<td>5 7 3</td>
</tr>
<tr>
<td>Medium</td>
<td>10 5</td>
<td>6 9</td>
<td>6 9 2</td>
<td>8 5</td>
</tr>
<tr>
<td>Low</td>
<td>10 5</td>
<td>6 9</td>
<td>6 9 5</td>
<td>5 5 5</td>
</tr>
<tr>
<td>Total</td>
<td>23 22</td>
<td>20 25</td>
<td>22 23</td>
<td>12 20 13</td>
</tr>
</tbody>
</table>

**Procedure**

Each counseling group was scheduled to meet twice a week for six weeks, or twelve sessions. Two of these sessions were for administration of tests, leaving ten counseling sessions.

A client-centered, unstructured approach to the group counseling activities was adopted, allowing each of the counseling groups to choose its own subjects and direction. The only limitation was that the discussions must be vocational in nature or related to subjects that affect vocational choice.
This allowed a great deal of flexibility within the group discussions, since most aspects of an individual's life could be related to vocational planning.

The exceptions to the non-structured approach were made in the first and twelfth sessions. These sessions were used to administer the *Tennessee Self-Concept Scale*, *Counseling Form*, and the *Rokeach Dogmatism Scale, Form E*, for pre- and posttest data to be used in the statistical analysis and testing of the hypotheses.

The second counseling session was loosely organized as an introduction to the activities. The counselor took the initiative, explained the procedures for the subsequent counseling sessions, and answered questions concerning the activities without divulging the objectives to be tested. During this session, each subject was asked to give a short verbal biographical sketch of himself, including vocational goals, reasons for vocational choice, and procedures he plans to use in accomplishing this goal. The counselor was available for questions concerning his background and other pertinent information.

Session three was used to complete the activities begun in the second session and to initiate the activities the subjects felt were of most value to them. The subjects were given the opportunity to take interest inventories and other standardized instruments if they wished, but no group chose
this activity, feeling they had been given most of the tests by the school, and further evaluation of this type would be of little value.

There was considerable variation in the group activities following the third session. There were no planned activities, and the structure of the group and its needs determined the direction the group discussion took. The counselor did introduce some activities if the group sought assistance or in cases where the group was unable to initiate activities of its own. The ability of the groups to determine their own direction varied greatly at first, but all groups moved toward a posture of self-determination. Some subjects discussed included the personality of vocations, decision-making procedure, race and sex as factors in choosing vocations, college as opposed to technical and vocational training, and factors involved in choosing a career.

Occasionally, the counseling session would evolve into information-seeking. In this situation, the counselor would become the expert, with the students asking questions concerning schools, entrance requirements, and admission procedures. The subjects were also interested in financial assistance available and the cost of an education. Where possible, the counselor answered the questions or directed the subjects to a source of information. If a specific answer was not available, the questions usually motivated a group discussion.
Description of Counseling Groups

The groups varied significantly with respect to the interaction, activity level, and depth of discussion. Some needed more structure, and the counselor was forced into a leadership role. Group A was a very accepting, active, and interested group. They assumed control of the activities, and the counselor became a participant or observer as the group wished. The discussions were serious, and participation was equally distributed among the students. The subjects discussed included the advisability of a college education as opposed to a lesser academic objective, the cost of training, and how to make a vocational decision.

Group B had difficulty starting the activities and looked to the counselor for direction. At first, the discussions were dominated by a few, but the group became more active as the sessions progressed. Two of the subjects never actively participated and took part only when asked a direct question. The subjects discussed were shallow in content and were related to selection of a training facility and financial aid available. The counselor attempted to lead the group into deeper discussion but was not very successful.

Group C was the most difficult group with which to work. They would not take the initiative and expected the counselor to direct the group. Even after an activity was started, the majority would participate only if directed or if they felt compelled to do so. A study of the group shows it was
dominated by low anxiety subjects, it met immediately after lunch, and most group members felt they had made vocational decisions and further discussion was useless. The discussions centered around personal vocational preference, with little interaction.

The subjects in Group D were extremely active and willing to participate in any discussion introduced. They were accepting of each other and the counselor, and welcomed the counselor into the group as an active participant. The counselor found it difficult to limit the group to vocational subjects, and redirection was frequently necessary. The group was interested in discussing the personality of vocations and in comparing their self-concepts with their friends evaluation of them. Considerable time was spent establishing personality profiles and making comparisons.

The fifth group, E, was predominantly black female high school juniors meeting the last period of the day. During the first counseling sessions, group activity level was poor. Two of the subjects refused to answer direct questions during the orientation session. The group interaction improved with each group session, as did the willingness of the group to accept the counselor. This group was interested in discussing the effects of race on job potential and selection of a vocational objective. They were more interested in discussing inter-racial activities than the other four groups.
Group E improved more than any of the other groups, and by the last session personal interaction was as high as any group.

Description of the Measuring Instruments

**Taylor Manifest Anxiety Scale**

The Taylor Manifest Anxiety Scale is made up of 50 items of the Minnesota Multiphasic Personality Inventory. Originally, approximately 200 items were selected and submitted to five judges along with a definition of manifest anxiety following Cameron's (1) description of chronic anxiety reaction. Sixty-five items were selected in which there was an 85 per cent agreement that the item measured manifest anxiety. Several revisions have reduced this to 50 items.

This instrument has been used in many experimental situations, ranging from simple conditioning and reaction time to therapeutic situations. It was developed to aid in the selection of experimental subjects without regard to the relationship of the scores to more common clinical definition.

On several occasions, Taylor (?) used test-retest procedures to test for reliability of the instrument, with results ranging from .89 to .81. The lower correlation was obtained when the test-retest had a greater time lapse. It was also noted that, not only did the group scores remain fairly constant, but position of the individual within the group remained constant.
Hoyt and Magoon (3) studied the validity of this instrument and concluded that the instrument shows reasonably high validity for their population. Taylor (7) validates her instrument with respect to the validation studies of the Minnesota Multiphasic Personality Inventory.

This instrument was chosen for this study because it proposes to measure a more general anxiety than other instruments available. It is easy to give and score, and the items do not confuse the subjects. In this study, the fifty items were included as part of a personal questionnaire, and there was no apparent reluctance on the part of the subjects to complete the questionnaire.

In Taylor's (7) normative data, the mean was 14.56 and the median between 13 and 14. In this study, the mean was 14.156 and the median 13. It was skewed to the positive, as were Taylor's data, indicating a close relationship between this group and the normative group.

Tennessee Self-Concept Scale, Counseling Form

Work was begun on this scale in 1955, when Pitts (2) selected items from other measures of self-concept that were of a self-descriptive nature. The system was defined for the purpose of classification of content and judged by seven clinical psychologists. These judges classified the items and determined the positive or negative content of each item. Only items on which all seven judges agreed are used in the final revision of the scale (2, p. 1).
The counseling form contains one hundred items, ninety of which are used to measure nine aspects of the self. The ten remaining items are a measurement of self-criticism. These items are purported to be less threatening and therefore measure the subject's tendency to be self-critical. Excessively high scores are an indication that the subject is overly self-critical, while excessively low scores are indicative of subjects who rate themselves too highly.

The ninety items are used to measure two dimensions of self-concept. One dimension is divided into three areas: (1) self-identity, (2) self-satisfaction, and (3) behavior. Thirty items are used to measure each of these three areas. Self-identity is how one sees himself, self-satisfaction measures one's happiness with himself, and behavior is a measurement of his actions. The second dimension is divided into five categories, using eighteen items for each. These are: (1) physical self, (2) moral-ethical self, (3) personal self, (4) family self, and (5) social self. These are measurements of how satisfied a person is with himself in regard to these five facets of his life.

The responses to these items are made on a five part scale, ranging from completely false (1) to completely true (5). Some of the items are negative, so a false answer awards more points.

This instrument was chosen because improvement in self-concept is a positive result to be sought in counseling of
any kind and this instrument appears to measure self-concept. It is easy for this age group to understand, and they do not seem threatened by the questions. There are also cross checks to measure the individual's ability to be truthful in reacting to the test.

For practical reasons, it is easy to administer and score and is not expensive. It also gives a quantitative score that makes statistical testing possible.

Rokeach Dogmatism Scale, Form E

Change in dogmatism was chosen as one dimension to be measured as an effect of group vocational counseling because it is felt that a decrease in dogmatism would indicate a positive change in the individual and, therefore, success in counseling. As the individual opens to the group and accepts others' ideas, he becomes less dogmatic and more open to change.

The Rokeach Dogmatism Scale attempts to measure Rokeach's theory of a belief-disbelief continuum. He defines his belief system as all the "beliefs, sets, expectancies or hypotheses, conscious and unconscious, that a person at a given time accepts as true of the world he lives in," (6, p. 33). A disbelief system, "Is composed of a series of subsystems rather than merely a single one, and contains all the disbeliefs, sets, expectancies, conscious and unconscious, that to one degree or another, a person at a given time rejects as false," (6, p. 33).
The Rokeach Dogmatism Scale, Form E, is the final product of five revisions. Form E contains forty items of the original eighty-nine. Responses are made on a six point scale from +3 to -3, with no 0 score. The responses are weighted according to the degree to which the subject agrees or disagrees with the statement. For all items, agreement is indicative of dogmatism (6, p. 73).

Reliabilities are purported as ranging from .68 to .93 (6, p. 90). Construct validity is supported by various studies reported by Rokeach (6).

This scale was chosen because it appears to measure a factor of one's behavior that should change with successful group interaction. A decrease in dogmatism would be considered an improvement in the individual and thus would be a good measure of the success of counseling. Rogers (14) talks about an openness to experience as characteristic of clients engaged in successful counseling, and a decrease in dogmatism should be indicative of such individuals.

Treatment of Data

After posttesting was completed, each subject had two scores, one for change in self-concept and the second for change in dogmatism. To compute the change in self-concept, the pretest score on the Tennessee Self-Concept Scale, Counseling Form, was subtracted from the posttest score. The change in dogmatism was computed by subtracting the posttest
score of the Rokeach Dogmatism Scale, Form E, from the pre-
test score. This would allow for improvement in both fac-
tors to be shown by a positive number and a deterioration
by a negative number.

A mean change was computed for each group with respect
to each test. The statistical problem was to compare these
scores for significant differences using Scheffe's test of
significance. This test was selected to reduce the chance
of a Type I error in the statistical conclusions. The use
of one set of data to test several hypotheses makes Type I
errors more likely, and Scheffe's test compensates by increas-
ing the size of the difference necessary to reject the null
hypotheses.

If the groups being compared are of the same size, a
critical difference can be computed negating the computation
of an F for each comparison. Each of the manifest anxiety
groups contains fifteen subjects.

The procedure used in testing the six research hypothe-
eses is as follows:

1. Each of the research hypotheses was restated in
the null. Research hypotheses 3 and 6 predicted no signifi-
cant change, so the null form of the hypotheses would be
identical to the research form. In the case of the other
four hypotheses, the research hypotheses were restated to
reflect no significant difference expected.
2. A mean change in self-concept and dogmatism was computed for each anxiety group.

3. A critical difference using Scheffe's test was computed for the self-concept and dogmatism scores.

4. The null hypotheses were tested by comparing the differences in the mean scores to the critical difference necessary for significance.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this chapter is to report the statistical results, analyze them, and discuss the results with respect to the purposes of the study. The chapter is divided into two sections. The first section discusses the results with respect to change in self-concept, while the second section deals with change in dogmatism.

The Scheffe test of significance was used in analyzing the statistical data and testing the null hypotheses. This statistical procedure was selected for two reasons. The procedure protects against a Type I error, finding a significant difference when none exists, and it allows for the computation of a critical difference when means of equal sized groups are being compared.

The absolute values of the differences between the group means equal to or greater than the critical difference are considered significant at a specified level of significance. For this study, the .05 level of significance was selected. In this manner, means for all groups can be computed and tested for significance simultaneously.

Self-Concept

Hypotheses 1, 2, and 3 made predictions concerning differences in mean change in self-concept shown by subjects
at three levels of manifest anxiety, as measured by the
Tennessee Self-Concept Scale, Counseling Form, after partic-
ipation in group vocational counseling.

The first hypothesis predicted that the score depict-
ing mean change in self-concept would be significantly great-
er for the medium manifest anxiety group than for the high
manifest anxiety group. The second hypothesis predicted that
the score depicting mean change in self-concept would be
significantly greater for the medium anxiety group than for
the low anxiety group. The third hypothesis predicted no
significant difference in the scores depicting mean change
in self-concept between the high manifest anxiety group and
the low manifest anxiety group.

The analysis of variance and the critical difference
for differences in mean change in self-concept as measured
by the Tennessee Self-Concept Scale, Counseling Form, is
presented in Table VI.

TABLE VI
ANALYSIS OF VARIANCE OF MEAN DIFFERENCE IN CHANGE IN
SELF-CONCEPT SCORES FOR THREE ANXIETY LEVELS

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>718.9777</td>
<td>359.4887</td>
</tr>
<tr>
<td>Within Groups</td>
<td>42</td>
<td>14202.6667</td>
<td>338.1587</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>14921.6145</td>
<td>..</td>
</tr>
</tbody>
</table>

Critical difference = 17.0101
A change in self-concept score was computed for each subject by subtracting the pretest score from the posttest score of the Tennessee Self-Concept Scale, Counseling Form. A mean change for each manifest anxiety group was computed, and the results are reported in Table VII. The mean change scores are shown in parentheses below the designated group title. A score depicting the difference between mean change scores was computed by subtracting the vertical score from the horizontal score for each block of Table VII. The numerical sign of these scores simply designates a direction for this difference, with the absolute values of the difference between any two manifest anxiety groups being the value to be tested. The absolute value of the mean difference score must exceed 17.0401 before a significant difference is indicated and the null hypothesis can be rejected.

### TABLE VII

**MEAN CHANGES AND DIFFERENCES BETWEEN MEAN CHANGES IN SELF-CONCEPT FOR MANIFEST ANXIETY GROUPS**

<table>
<thead>
<tr>
<th></th>
<th>High (-.3333)</th>
<th>Medium (-2.8000)</th>
<th>Low (-9.2333)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (-.3333)</td>
<td>. .</td>
<td>-2.4777</td>
<td>-8.9000</td>
</tr>
<tr>
<td>Medium (-2.8000)</td>
<td>2.4777</td>
<td>. .</td>
<td>-6.4333</td>
</tr>
<tr>
<td>Low (-9.2333)</td>
<td>8.9000</td>
<td>6.4333</td>
<td>. .</td>
</tr>
</tbody>
</table>
The absolute values of the mean change differences reported in Table VII are 2.1777, 6.1333, and 8.9000. These values are below the critical difference of 17.0401 necessary for rejection of the null hypotheses. This means the null form of the hypotheses must be accepted, rejecting the research form of hypotheses 1 and 2. The research form of the third hypothesis was identical to the null, allowing for acceptance of both.

The results indicate that the mean changes in self-concept for the three levels of manifest anxiety are not significantly different. Further analysis of the data was done to test for a significant change in self-concept within the three anxiety groups and to compare the levels of self-concept for the three anxiety groups prior to group vocational counseling.

To compare the levels of self-concept prior to counseling, the differences in the mean pretest scores of the Tennessee Self-Concept Scale, Counseling Form, for each of the anxiety levels were tested for significance. The Scheffe test was used to compute a critical difference. The means, mean differences, and the critical difference are reported in Table VIII.

The mean differences were computed by subtracting the vertical score from the horizontal score for each block. The signs indicate a numerical direction, and it is the absolute value that was used to test for significance.
TABLE VIII
MEANS, MEAN DIFFERENCES, AND CRITICAL DIFFERENCE
FOR PRETEST SCORES IN SELF-CONCEPT WITH RESPECT
TO THREE LEVELS OF MANIFEST ANXIETY

<table>
<thead>
<tr>
<th></th>
<th>High (322.333)</th>
<th>Medium (343.800)</th>
<th>Low (363.333)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>322.333</td>
<td>-21.467</td>
<td>41.000</td>
</tr>
<tr>
<td>Medium</td>
<td>343.800</td>
<td>21.467</td>
<td>19.533</td>
</tr>
<tr>
<td>Low</td>
<td>363.333</td>
<td>-41.000</td>
<td>-19.533</td>
</tr>
</tbody>
</table>

Critical difference = 31.981

The high and low anxiety groups have a mean difference of 41.000, indicating that the difference is not due to chance alone and is significant. The low manifest anxiety subjects have a significantly higher level of self-concept as measured by the Tennessee Self-Concept Scale, Counseling Form, than the high manifest anxiety subjects. The mean score for the medium anxiety subjects did not vary significantly from either of the extreme groups, indicating that the difference could be due to sampling error. Further study in this area is warranted.

To test for change in self-concept within the various anxiety groups, the difference between the mean pretest and mean posttest scores of the Tennessee Self-Concept Scale,
Counseling Form, were tested for significance. The mean, standard deviation, and \( t \) value for each anxiety group are shown in Table IX.

**TABLE IX**

**MEAN SCORES, STANDARD DEVIATION, AND \( t \) VALUES FOR CHANGE IN SELF-CONCEPT SCORES OF SUBJECTS AT THREE LEVELS OF MANIFEST ANXIETY**

<table>
<thead>
<tr>
<th>Anxiety Level</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>-.3333</td>
<td>14.4530</td>
<td>-.086</td>
</tr>
<tr>
<td>Medium</td>
<td>-2.8000</td>
<td>17.9154</td>
<td>-.585</td>
</tr>
<tr>
<td>Low</td>
<td>-9.2333</td>
<td>20.4205</td>
<td>-1.698</td>
</tr>
</tbody>
</table>

The absolute value of \( t \) must equal or exceed 2.145 to be significant at the .05 level of confidence with 14 degrees of freedom. None of the \( t \) values in Table IX reaches this value, and, therefore, the mean posttest score does not differ significantly from the mean pretest score for any of the anxiety groups. The low anxiety group shows a significant change at the .2 level of confidence and the medium anxiety group at the .6 level. The data indicates an inverse relationship between level of anxiety and willingness to change one's self-concept, but more study is needed with larger samples to draw specific conclusions.

The negative values of the mean change scores indicate the subjects' self-concept worsened following group vocational
counseling. In an attempt to understand the negative change, a study of the students' comments following group counseling was made. The students indicated they became more comfortable with the counselor and the other students during the counseling procedure. They admitted to being skeptical at first and a little restrained during the pretest activities. Apparently, the level of anxiety does affect the subjects' willingness to reevaluate their self-concept, since the mean change for the low anxiety subjects was higher than the mean change for the high anxiety subjects. No specific conclusions can be drawn, and more study is warranted.

The following points are made in summary:

1. There was no significant difference in the mean change in self-concept for subjects at three levels of manifest anxiety.

2. The low manifest anxiety subjects had a significantly higher mean self-concept pretest score than the high manifest anxiety subjects.

3. There was no significant difference between the mean pretest scores and mean posttest scores in self-concept for any of the manifest anxiety groups.

4. The changes were negative and inversely related to the level of anxiety, indicating the level of anxiety did affect the subjects' willingness to change, and the subjects became more critical following group vocational counseling.
Dogmatism

Hypotheses 4, 5, and 6 made predictions concerning differences in mean change in dogmatism shown by subjects at three levels of manifest anxiety, as measured by the Rokeach Dogmatism Scale, Form E, after participation in group vocational counseling.

Hypothesis 4 predicted that the score depicting mean change in dogmatism would be significantly greater for the medium manifest anxiety group than for the high manifest anxiety group. Hypothesis 5 predicted that the score depicting mean change in dogmatism would be greater for the medium manifest anxiety group than for the low manifest anxiety group. Hypothesis 6 predicted no significant difference in the scores depicting mean change in dogmatism between the high and low manifest anxiety groups.

The analysis of variance and the critical difference for differences in mean change in dogmatism as measured by the Rokeach Dogmatism Scale, Form E, is presented in Table X.

TABLE X

ANALYSIS OF VARIANCE OF MEAN DIFFERENCES IN CHANGE IN DOGMATISM FOR THREE ANXIETY LEVELS

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>1138.2333</td>
<td>569.1167</td>
</tr>
<tr>
<td>Within groups</td>
<td>42</td>
<td>10240.2667</td>
<td>243.8159</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>11378.5</td>
<td></td>
</tr>
</tbody>
</table>
A change in dogmatism score was computed for each subject by subtracting the posttest score from the pretest score of the Rokeach Dogmatism Scale, Form E. A positive change would indicate that the subject had become less dogmatic and more open minded. A negative score would indicate the opposite. A mean change score was computed for each manifest anxiety group and is reported in Table XI, along with the difference between the means of the manifest anxiety groups. This difference was computed by subtracting the vertical scores from the corresponding horizontal score for each block. Signs of the numbers simply depict numerical direction for the difference, with the absolute values being considered when testing for a significant difference. A mean difference score must exceed 14.4692 before it designates a significant difference and the null hypothesis can be rejected.

**TABLE XI**

**MEAN CHANGES AND DIFFERENCES BETWEEN MEAN CHANGES IN DOGMATISM FOR THREE MANIFEST ANXIETY LEVELS**

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(-7.7333)</td>
<td>(4.5333)</td>
<td>(-2.6000)</td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(-7.7333)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>-12.2666</td>
<td></td>
<td>-7.1333</td>
</tr>
<tr>
<td>(4.5333)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>-5.1333</td>
<td>7.1333</td>
<td></td>
</tr>
<tr>
<td>(-2.6000)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table XI reports the absolute values of the mean differences of the manifest anxiety groups are 12.2666, 7.1333, and 5.1333. These values fail to exceed the critical difference of 14.4692, and therefore the noted differences are not significant. The null hypotheses must be accepted as true, necessitating rejection of research hypotheses 4 and 5. In hypothesis 6, the research form and the null form are identical, allowing for acceptance of this research hypothesis.

The results indicate that the mean changes in dogmatism for the three levels of manifest anxiety are not significantly different. Further analysis of the data to test for a significant change in dogmatism within the three anxiety groups and to compare the levels of dogmatism for the three anxiety groups prior to group vocational counseling was completed.

To compare the levels of dogmatism prior to counseling, the differences in the mean pretest scores of the Rokeach Dogmatism Scale, Form E, for each of the anxiety levels were tested for significance. The Scheffe test was used to compute a critical difference, and the means, mean differences, and the critical difference are reported in Table XII.

The mean difference was computed by subtracting the vertical score from the horizontal score for each block. The sign of the number indicates direction, but the absolute value of the difference is compared to the critical difference.
TABLE XII
MEANS, MEAN DIFFERENCES AND CRITICAL DIFFERENCE
FOR PRETEST SCORES IN DOGMATISM WITH RESPECT
TO THREE LEVELS OF MANIFEST ANXIETY

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>180.267</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>8.333</td>
<td>-17.267</td>
</tr>
<tr>
<td>Low</td>
<td>163.000</td>
<td>25.600</td>
<td></td>
</tr>
</tbody>
</table>

Critical difference = 20.028

The only mean difference that was significant at the
.05 level of confidence was between the high and medium anxiety groups. The medium anxiety subjects had a significantly higher mean dogmatism score than did the low anxiety subjects, indicating that the medium anxiety group entered group vocational counseling significantly more dogmatic than did the low anxiety subjects. The high anxiety subjects were more dogmatic than the low anxiety subjects, but the mean scores were not significantly different at the .05 level.

These results would lead to the assumption that medium anxiety subjects are more dogmatic than either the high or low manifest anxiety subjects. The mean difference in the dogmatism scores for the high and medium anxiety scores are small and probably due to selection procedures. However,
the mean differences between the low anxiety subjects and both the medium and high anxiety subjects could be a trend. Studies with more subjects are needed to test this trend.

To test for change in dogmatism within the various anxiety groups, the differences between the mean pretest and mean posttest scores of the Rokeach Dogmatism Scale, Form E, were tested for significance. The mean, statistical deviation, and \( t \) value for each anxiety group are reported in Table XIII.

**TABLE XIII**

**MEAN SCORES, STANDARD DEVIATION AND \( t \) VALUES FOR CHANGE IN DOGMATISM SCORES OF SUBJECTS AT THREE LEVELS OF MANIFEST ANXIETY**

<table>
<thead>
<tr>
<th>Anxiety Level</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>-7.7333</td>
<td>19.2405</td>
<td>-1.505</td>
</tr>
<tr>
<td>Medium</td>
<td>4.5333</td>
<td>13.0633</td>
<td>1.299</td>
</tr>
<tr>
<td>Low</td>
<td>-2.6000</td>
<td>11.9097</td>
<td>-0.818</td>
</tr>
</tbody>
</table>

The absolute value of \( t \) must equal or exceed 2.145 to be significant at the .05 level of confidence with 14 degrees of freedom. None of the \( t \) values in Table XIII reaches this value, and, therefore, the mean posttest score does not differ significantly from the mean pretest score for any of the anxiety groups. The high anxiety group shows a significant change at the .2 level of confidence and the medium
anxiety group at the .4 level. The data suggest curvilinear relationship between level of anxiety and change in dogmatism, since the medium anxiety subjects became less dogmatic while the high and low anxiety subjects became more dogmatic. The change for the low anxiety is small and probably can be dismissed, but the trend for the other two groups warrants further study with larger populations.

The negative mean scores indicate an increase in dogmatism following group vocational counseling. The fact that the high anxiety subjects became more dogmatic suggests that these individuals found the group activities painful and developed a more closed system as a defense. The medium anxiety subjects became more open, showing positive results from counseling. The low anxiety subjects changed very little, and this is probably more due to testing variables than to significant changes in dogmatism. There are trends in the data that suggest a relationship between level of manifest anxiety and change in dogmatism with group vocational counseling, but more study is needed to draw specific conclusions.

In summary, the following points are made:

1. There was no significant difference in the mean change in dogmatism for subjects at the three levels of manifest anxiety.

2. The medium manifest anxiety subjects had a significantly higher mean pretest dogmatism score than the low
manifest anxiety subjects, indicating the medium anxiety subjects were significantly more dogmatic prior to counseling than the low anxiety subjects.

3. For none of the manifest anxiety groups was there a significant difference between the mean pretest scores and mean posttest scores in dogmatism.

4. Though not significant, the medium anxiety subjects became less dogmatic while the high and low anxiety subjects showed trends toward becoming more dogmatic following group vocational counseling.

The following procedural problems were observed and may have been contributing factors in the results.

1. The counselor and students were not acquainted prior to the pretest activities. This allowed for speculation concerning the use of the data, possibly causing the students to overevaluate themselves on the initial tests.

2. The school could not assign a room to be used for all meetings. This caused some confusion at the beginning of each session.

Summary

Statistical results show that there was no significant difference in mean changes in self-concept or dogmatism between high, medium, and low manifest anxiety groups following ten group vocational counseling sessions. There were
indications that the levels of manifest anxiety and self-concept are inversely related, while the level of dogmatism has a curvilinear relation with the level of manifest anxiety. Conclusions and recommendations are given in Chapter V.
CHAPTER BIBLIOGRAPHY

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to compare the changes in self-concept and dogmatism resulting from group vocational counseling for individuals at three levels of manifest anxiety. The changes in self-concept and dogmatism were measured by the Tennessee Self-Concept Scale, Counseling Form, and the Rokeach Dogmatism Scale, Form E, respectively.

The hypotheses were as follows:

1. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater mean increases in self-concept as measured by the Tennessee Self-Concept Scale, Counseling Form, than those individuals designated as having a high level of manifest anxiety.

2. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater mean increases in self-concept as measured by the Tennessee Self-Concept Scale, Counseling Form, than those individuals designated as having a low level of manifest anxiety.

3. There will be no significant difference in changes in self-concept as measured by the Tennessee Self-Concept Scale, Counseling Form, between the groups of individuals
designated as having high levels of manifest anxiety and those designated as having low levels of manifest anxiety.

4. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater decreases in dogmatism as measured by the Rokeach Dogmatism Scale, Form E, than will those individuals designated as having a high level of manifest anxiety.

5. The group designated as having a medium level of manifest anxiety will demonstrate significantly greater decreases in dogmatism as measured by the Rokeach Dogmatism Scale, Form E, than will those individuals designated as having a low level of manifest anxiety.

6. There will be no significant difference in changes in dogmatism as measured by the Rokeach Dogmatism Scale, Form E, between the groups of individuals designated as having a high level of manifest anxiety and those designated as having a low level of manifest anxiety.

The subjects were selected from 141 junior and senior students in a single high school community. The Taylor Manifest Anxiety Scale was administered to the entire population and the level of the scores used to divide the subjects into five equal groups. The groups with the highest, lowest, and middle score were then chosen and designated as high, low, and medium anxiety groups, respectively. This procedure allowed the groups to be mutually exclusive.
From these groups, sixteen high, seventeen medium, and seventeen low anxiety subjects were selected to participate in group vocational counseling. These fifty students were first administered the Tennessee Self-Concept Scale, Counseling Form, and the Rokeach Dogmatism Scale, Form E. The results were recorded and used as the pretest scores. The fifty subjects, divided into five counseling groups, participated in ten group vocational counseling sessions.

Following the tenth counseling session, the subjects were again administered the Tennessee Self-Concept Scale, Counseling Form, and the Rokeach Dogmatism Scale, Form E, and these results were designated as posttest scores. One medium anxiety subject failed to complete the counseling and posttest activities. One high, one medium, and two low anxiety subjects were randomly selected, and their scores were eliminated, leaving fifteen subjects at each level of manifest anxiety for the statistical analysis.

A change in self-concept score was computed for each individual by subtracting the pretest score from the posttest score, and then a mean change score was computed for each anxiety group. A similar procedure was used to compute a mean change in dogmatism score for each group, but the posttest score was subtracted from the pretest score. In this way, a positive number would indicate an increase in self-concept and a decrease in dogmatism.
The Scheffe test of significance was used to test the null hypotheses. This test compensates for the greater chance of a Type I error due to the multiple comparisons necessary in testing the hypotheses. With the Scheffe test, a critical difference can be computed allowing for multiple comparisons from a single computation. The statistical analysis revealed the following:

Hypothesis 1 was rejected. There was no significant difference between the mean change in self-concept of the medium anxiety group and the mean change in self-concept of the high anxiety group.

Hypothesis 2 was rejected. There was no significant difference between the mean change in self-concept of the medium anxiety group and the mean change in self-concept of the low anxiety group.

Hypothesis 3 was accepted. There was no significant difference between the mean change in self-concept of the high anxiety group and the mean change in self-concept of the low anxiety group.

Hypothesis 4 was rejected. There was no significant difference between the mean change in dogmatism of the medium anxiety group and the mean change in dogmatism of the high anxiety group.

Hypothesis 5 was rejected. There was no significant difference between the mean change in dogmatism of the medium anxiety group and the mean change in dogmatism of the low anxiety group.
Hypothesis 6 was accepted. There was no significant difference between the mean change in dogmatism of the high anxiety group and the mean change in dogmatism of the low anxiety group.

In order to further analyze the data, additional comparisons were made. The mean pretest scores in self-concept and dogmatism for each manifest anxiety group were tested for significant difference. The low manifest anxiety subjects had a significantly higher mean self-concept score than the high manifest anxiety subjects. The mean self-concept score for the medium anxiety group was not significantly different from the mean scores of the other two groups.

The medium manifest anxiety subjects had significantly higher pretest dogmatism scores than the low manifest anxiety subjects. The mean pretest dogmatism score for the high manifest anxiety group was not significantly different from the mean scores of the other two groups, but this group's dogmatism score was closer to that of the medium anxiety group than the low anxiety group.

To test for significant change in self-concept and dogmatism within each of the three manifest anxiety groups, mean change scores were tested for significance. None of the mean change scores was significant. The change in self-concept was negative and became greater as the level of manifest anxiety decreased. The negative score indicates the subjects became more self-critical following group vocational counseling.
The medium anxiety subjects became less dogmatic, while the high and low anxiety subjects became more dogmatic. The mean change in dogmatism for the high anxiety subjects was almost three times as great as the mean change for the low anxiety subjects.

Findings

The findings are reported in two sections, those related to self-concept and those related to dogmatism.

Self-Concept

1. The mean change score in self-concept for high manifest anxiety subjects was not significantly different from the corresponding mean change score for the medium manifest anxiety group.

2. The mean change score in self-concept for high manifest anxiety subjects was not significantly different from the corresponding mean change score for the low manifest anxiety group.

3. The mean change score in self-concept for the medium manifest anxiety subjects was not significantly different from the corresponding mean change score for the low manifest anxiety group.

4. The mean pretest self-concept score for the low manifest anxiety subjects was significantly higher than the mean pretest self-concept score for the high manifest anxiety subjects.
5. The mean pretest self-concept score for the low manifest anxiety subjects was higher than, but not significantly different from, the mean pretest self-concept score for the medium manifest anxiety subjects.

6. The mean pretest self-concept score for the medium anxiety subjects was higher than, but not significantly different from, the mean pretest self-concept score for the high manifest anxiety subjects.

7. The mean pretest self-concept score was not significantly different from the mean posttest self-concept score for the high manifest anxiety subjects.

8. The mean pretest self-concept score was not significantly different from the mean posttest self-concept score for the medium manifest anxiety subjects.

9. The mean pretest self-concept score was not significantly different from the mean posttest self-concept score for the low manifest anxiety subjects.

10. The mean change scores in self-concept for all three manifest anxiety groups were negative.

11. The low manifest anxiety subjects had a greater mean change in self-concept than either the medium or high manifest anxiety subjects.

12. The medium manifest anxiety subjects had a greater mean change in self-concept than the high manifest anxiety subjects.
Dogmatism

1. The mean change score in dogmatism for high manifest anxiety subjects was not significantly different from the corresponding mean change score for medium manifest anxiety subjects.

2. The mean change score in dogmatism for high manifest anxiety subjects was not significantly different from the corresponding mean change score for low manifest anxiety subjects.

3. The mean change score in dogmatism for medium manifest anxiety subjects was not significantly different from the corresponding mean change score for low manifest anxiety subjects.

4. The mean pretest dogmatism score for the medium manifest anxiety subjects was significantly higher than the mean pretest dogmatism score for the low manifest anxiety subjects.

5. The mean pretest dogmatism score for the medium manifest anxiety subjects was higher than, but not significantly different from, the mean pretest dogmatism score for the high manifest anxiety subjects.

6. The mean pretest dogmatism score for the high manifest anxiety subjects was higher than, but not significantly different from, the mean pretest dogmatism score for the low manifest anxiety subjects.
7. The mean pretest dogmatism score was not significantly different from the posttest dogmatism score for the high manifest anxiety subjects.

8. The mean pretest dogmatism score was not significantly different from the posttest dogmatism score for the medium manifest anxiety subjects.

9. The mean pretest dogmatism score was not significantly different from the posttest dogmatism score for low manifest anxiety subjects.

Conclusions
The conclusions are reported in two sections, those related to self-concept and those related to dogmatism.

Self-Concept
1. A high school student's level of manifest anxiety was not a predictor of the degree of change in self-concept in comparison to other levels of manifest anxiety.

2. Group vocational counseling was not effective in changing high school students' self-concept.

3. There is a negative relationship between high school students' manifest anxiety and self-concept.

Dogmatism
1. A high school student's level of manifest anxiety was not a predictor of the degree of change in dogmatism in comparison to other levels of manifest anxiety.
2. Group vocational counseling was not effective in changing high school students' level of dogmatism.

3. There is a negative relationship between high school students' manifest anxiety and level of dogmatism.

Recommendations

The following recommendations are made with respect to future research.

1. Repeat this study with one or more of the following changes:

   A. Delay pretesting in self-concept and dogmatism until the second or third group session.

   B. Have the counselor assume more control of the counseling activities and be more directive in the group discussions.

   C. Vary the total number and frequency of group sessions.

2. Design new studies to test trends noted but not proven in this study.

   A. The correlation between a high school student's manifest anxiety and self-concept is high and negative.

   B. The correlation between a high school student's manifest anxiety and amount of change in self-concept following group counseling is high and negative.

   C. High school students become more self critical following group counseling.
D. The relationship between high school students' manifest anxiety and dogmatism is curvilinear. Dogmatism increases to a point with an increase in manifest anxiety and then decreases.

E. The correlation between high school students' manifest anxiety and amount of change in dogmatism is high and positive.

F. High school students with high and low manifest anxiety become more dogmatic, while those with medium anxiety become less dogmatic following group vocational counseling.
APPENDIX A

Name ____________________________

Last       First       Middle

Age _______________       Sex ____________

Classification ________________

Most Interesting Subject ________________________

Least Interesting Subject ________________________

Estimated School Average ________________________

Plans following graduation from high school (College and major, or type of work you plan to do)

Work Experience:

Present job

Previous jobs

Extracurricular school activities

Non-school activities

Hobbies

Plans for the future: Discuss.
Answer the following questions True or False as they pertain to you. Circle T or F.

T  F  1. I do not tire quickly.
T  F  2. I am troubled by attacks of nausea.
T  F  3. I believe I am no more nervous than most others.
T  F  4. I have very few headaches.
T  F  5. I work under a great deal of tension.
T  F  6. I cannot keep my mind on one thing.
T  F  7. I worry over money and business.
T  F  8. I frequently notice my hand shakes when I try to do something.
T  F  9. I blush no more often than others.
T  F  10. I have diarrhea once a month or more.
T  F  11. I worry quite a bit over possible misfortunes.
T  F  12. I practically never blush.
T  F  13. I am often afraid that I am going to blush.
T  F  14. I have nightmares every few nights.
T  F  15. My hands and feet are usually warm enough.
T  F  16. I sweat very easily, even on cool days.
T  F  17. Sometimes when embarrassed, I break out in a sweat which annoys me greatly.
T  F  18. I hardly ever notice my heart pounding and I am seldom short of breath.
T  F  19. I feel hungry almost all the time.
T  F  20. I am very seldom troubled by constipation.
T  F  21. I have a great deal of stomach trouble.
T F 22. I have had periods in which I lost sleep over worry.
T F 23. My sleep is fitful and disturbed.
T F 24. I dream frequently about things that are best kept to myself.
T F 25. I am easily embarrassed.
T F 26. I am more sensitive than most other people.
T F 27. I frequently find myself worrying about something.
T F 28. I wish I could be as happy as others seem to be.
T F 29. I am usually calm and not easily upset.
T F 30. I cry easily.
T F 31. I feel anxiety about something or someone almost all the time.
T F 32. I am happy most of the time.
T F 33. It makes me nervous to have to wait.
T F 34. I have periods of such great restlessness that I cannot sit long in a chair.
T F 35. Sometimes I become so excited that I find it hard to get to sleep.
T F 36. I have sometimes felt that difficulties were piling up so high that I could not overcome them.
T F 37. I must admit that I have at times been worried beyond reason over something that really did not matter.
T F 38. I have very few fears compared to my friends.
T F 39. I have been afraid of things or people that I know could not hurt me.
T F 40. I certainly feel useless at times.
T F 41. I find it hard to keep my mind on a task or job.
T F 42. I am unusually self-conscious.
T F 43. I am inclined to take things hard.
T F 44. I am a high-strung person.
T F 45. Life is a strain for me much of the time.
T F 46. At times I think I am no good at all.
T F 47. I am certainly lacking in self-confidence.
T F 48. I sometimes feel that I am about to go to pieces.
T F 49. I shrink from facing a crisis or difficulty.
T F 50. I am entirely self-confident.

Father's occupation _________________________________

Father's grade completed ___________________________

Mother's occupation ________________________________

Mother's grade completed ___________________________

Older brothers' and sisters' occupations _____________

Older brothers' and sisters' grade completed __________
ATTITUDE SCALE

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view: you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement on the answer sheet according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1: I AGREE A LITTLE    -1: I DISAGREE A LITTLE
+2: I AGREE ON THE WHOLE -2: I DISAGREE ON THE WHOLE
+3: I AGREE VERY MUCH   -3: I DISAGREE VERY MUCH

1. The United States and Russia have just about nothing in common.

2. The highest form of government is a democracy, and the highest form of democracy is a government run by those who are most intelligent.

3. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

4. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

5. Man on his own is a helpless and miserable creature.

6. Fundamentally, the world we live in is a pretty lonesome place.

7. Most people just don't give a "damn" for others.

8. I'd like it if I could find someone who would tell me how to solve my personal problems.

9. It is only natural for a person to be rather fearful of the future.
10. There is so much to be done and so little time to do it in.

11. Once I get wound up in a heated discussion I just can't stop.

12. In a discussion, I often find it necessary to repeat myself several times to make sure I am being understood.

13. In a heated discussion, I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

14. It is better to be a dead hero than to be a live coward.

15. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

16. The main thing in life is for a person to want to do something important.

17. If given the chance, I would do something of great benefit to the world.

18. In the history of mankind there have probably been just a handful of really great thinkers.

19. There are a number of people I have come to hate because of the things they stand for.

20. A man who does not believe in some great cause has not really lived.

21. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

22. Of all the different philosophies which exist in this world there is probably only one which is correct.

23. A person who gets enthusiastic about too many causes is likely to be a pretty "wissy-washy" sort of person.

24. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

25. When it comes to differences of opinion in religion, we must be careful not to compromise with those who believe differently from the way we do.
26. In times like these, a person must be pretty selfish if he considers primarily his own happiness.

27. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

28. In times like these, it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camps.

29. A group which tolerates too much difference of opinion among its own members cannot exist for long.

30. There are two kinds of people in this world: those who are for the truth and those who are against the truth.

31. My blood boils whenever a person stubbornly refuses to admit he's wrong.

32. A person who thinks primarily of his own happiness is beneath contempt.

33. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

34. In this complicated world of ours, the only way we can know what's going on is to rely on leaders or experts who can be trusted.

35. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

36. In the long run, the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.

37. The present is all too often full of unhappiness. It is only the future that counts.

38. If a man is to accomplish his mission in life, it is sometimes necessary to gamble "all or nothing at all."

39. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.

40. Most people just don't know what's good for them.
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