THE COMPARATIVE EFFECTS OF STRUCTURED GROUP AND GROUP-INDIVIDUAL COUNSELING ON SELF-CONCEPT, STUDY-HABITS AND ATTITUDES, ACADEMIC ACHIEVEMENT, AND OBSERVED CLASSROOM BEHAVIOR OF LOW-MOTIVATED MALE HIGH SCHOOL JUNIORS

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This is to certify that the

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ABSTRACT

THE COMPARATIVE EFFECTS OF STRUCTURED GROUP AND GROUP-INDIVIDUAL COUNSELING ON SELF-CONCEPT, STUDY-HABITS AND ATTITUDES, ACADEMIC ACHIEVEMENT, AND OBSERVED CLASSROOM BEHAVIOR OF LOW-MOTIVATED MALE HIGH SCHOOL JUNIORS

By

Ann Keese Thomas

Problem: The purpose of this study was to test the effects of two types of group counseling on the self-concept, study-habits and attitudes, academic achievement, and change in observed classroom behavior of low-motivated male eleventh grade students. The experiment was a replication and an extension of research conducted by Delores Story and Joseph Mezzano, co-researchers, who introduced team counseling into the public school setting.

Description: The design of the study was a post-test-only with control group model. The treatments were: (1) group counseling only, and (2) group plus individual counseling. Eighteen group sessions were conducted by a counseling team made up of one male and one female counselor. The counselors were active participants in the group discussions. Combined affective and structured techniques were used in each session.

The amount of counselor contact time was held constant. The basic hypotheses of the study were:

1. The self-concept scores of low-motivated students who received group counseling plus individual counseling would be greater at the completion of the experiment than the scores of students who had either group counseling only or no group counseling.

2. The study habit and attitude scores of low-motivated students who received group counseling plus individual counseling would be greater at the completion of the experiment than the scores of low-motivated students who had either group counseling only or no group counseling.

3. The academic achievement of low-motivated students who received group counseling plus indivudal counseling would be greater at the third grading period during the experiment and the fourth grading period at the completion of the experiment than those of low-motivated students who had either group counseling only or no group counseling.

4. The teachers' observed behavior rating scores of low-motivated students who received group counseling plus individual counseling would be greater at the completion of the experiment than the scores of students who had either group counseling only or no group counseling.

Six criteria measures were used to determine outcomes of the counseling experience: (1) The Minnesota Counseling Inventory, (2) The Tennessee Self-Concept Scale, (3) grade point averages at nine weeks, (4) grade point averages at the completion of the experiment, (5) Brown-Holtzman Survey of Study Habits and Attitudes, and (6) an abbreviated form of the Haggerty-Olson-Wickman Behavior Rating Scale.

Originally, 115 students from Hope High School, Hope, Arkansas, were identified as low-motivated on the Michigan M-Scales. Of the 115, one hundred students

accepted invitations to participate in the study. Stratification categories were determined according to the free hours that the 100 students had in common. From each category, ten students were randomly selected. Six groups of ten individuals per group made up the experimental groups. The six groups were randomly assigned to either group or group plus individual counseling treatments. Groups were also randomly assigned within each treatment. Randomizing techniques were used to assign the pairs of counselors to the various treatment groups. The forty students not selected by the random procedures were designated as the control group and received no treatment.

To be included in the analyses of the study, a minimum of 16 sessions for either the group counseling treatment or for the group-individual treatment was required. Individual sessions were on a flexible schedule and attendance was not a problem. Twenty-seven in the group-individual treatment and 28 in the group treatment of the original 30 in each of the treatment groups (55 of the original 60) met the requirement for post-treatment analyses. Thirty-seven of the original 40 subjects in the control group completed both the pre- and post-test measures. Proportionately, the attrition rate was evenly distributed between the treatment and the control groups.

Data for the six null hypotheses were analyzed using the one way analysis of variance (ANOVA). For

comparison purposes, the data were analyzed and reported exactly as the analyses were reported in the Story-Mezzano investigations. The F statistic was used to test for significance at the .05 level.

The data analyses were then extended and analyzed using univariate and multivariate (MANOVA) procedures to guard against the possibility of a false rejection of the null hypotheses. The level of significance for rejecting the null hypotheses was set at the .05 alpha level.

Major Findings. Three major findings that emerged from this study were:

1. The Conformity Scale scores from the Minnesota Counseling Inventory (MCI) indicated a significant difference between treatment groups, but not in the direction predicted. The other six scales did not yield significant results.

2. The grade point average changes were not significantly different between treatment groups. However, the GPA means of the counseled groups increased each grading period. The mean GPA of the control group decreased.

3. The group counseling was effective with or without the addition of individual counseling when counselor time was held constant.

No significant differences were found to exist between the means of the treatment groups for the other

three dependent measures; the Tennessee Self-Concept Scales, the Brown-Holtzman Survey of Study Habits and the Haggerty-Olson-Wickman Behavior Scale.

The assumption that low-motivated males would change behavior because of a combined structured and unstructured group counseling technique conducted by a male-female counseling team for eighteen weeks was not upheld.

The statistical evidence did not indicate that students who received group plus individual counseling developed a more positive self-concept, achieved improved social relationships, acquired a greater degree of emotional stability, or earned more acceptance from teachers than those students who experienced either group counseling only or no counseling.

THE COMPARATIVE EFFECTS OF STRUCTURED GROUP AND GROUP-INDIVIDUAL COUNSELING ON SELF-CONCEPT, STUDY-HABITS AND ATTITUDES, ACADEMIC ACHIEVEMENT, AND OBSERVED CLASSROOM BEHAVIOR OF LOW-MOTIVATED MALE HIGH SCHOOL JUNIORS

By

Ann Keese Thomas

A DISSERTATION

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Department of Counseling, Personnel
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Dedicated

With love to

Sam

Terry Ann and Jim

My Parents

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CHAPTER I

THE PROBLEM

Change and adaptations to it are realities counselors cannot ignore. The counselors in the public schools face many tests, wondering each year about budgets and survival.[1] Miller and Engin[2] extend the following challenges to 1976 counselors: Account for yourself. Can you facilitate a group? Have you kept up with the literature? Are you competent? Can you demonstrate a technique by role-playing before peers or on video tape? Janury, 1986, will you be a counselor? Competent or unemployed? Alvin Toffler, in his keynote address at the 1975 APGA Convention, described the current economic, environmental and societal crises and emphasized the crises as problems that are without historical precedent. Yet, society is trying to deal with the issues by using old procedures which worked in the past but are now ineffective. Toffler used

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[1]Helen Washburn, "Vice-President's Message," Elementary School Guidance and Counseling, (December, 1975), pp. 84-85.

[2]Jane M. Miller and Ann W. Engin, "Tomorrow's Counselor: Competent or Unemployed," Personnel and Guidance Journal, (January 1976), pp. 262-266.

the economic analogy to describe the dilemma counselors in education face today.

> The need is evident for change, many urge a return to old ways, others voice concern for the need to provide young people with the skills to cope with new complexities. These internal problems of education, complicated by the effects of global crises, make educational change a monumental task.[3]

Counselors, as a professional body, publicize their commitment to change. However, are individual counselors in practice really committed to the published commitment? Do counselors merely give lip-service to finding solutions to problems of guidance in the public schools because they are confused, limited or bound by the old customs, traditions, and conventional habits of school routine?

Educators became interested in group counseling as one way to assist large numbers of students in academic adjustment, educational-vocational planning and personal-social difficulties about twenty years ago. Most secondary school counselors were uncertain about using group process for guidance functions; there was not enough research to justify the risks they might encounter. The problems of group methods were not completely understood; the reported research was vague, and it had been conducted in laboratory settings.

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[3]Helen Washburn, p. 84.

By 1964, counselor educators were proponents of the group process and there was a flood of research that clearly defined or demonstrated the types of situations and/or conditions for which group counseling was appropriate.[4] Counselors hesitated to conduct group counseling in the public schools because critics believed that group counseling could not be justified without significant research results. In 1964, Stefflre[5] urged counselors to implement creative approaches in guidance. He warned that, if counselors waited for significant research results for everything they did in the name of counseling, there would be a long wait ahead and possible failure to justify their need to remain in the public schools.

The U.S. Office of Education, in 1967, supported a seminar to develop guidelines for future research in group counseling as it applied to the educational environment with normal individuals.[6] The purpose of the seminar was to help the public schools enhance the effectiveness of the typical school guidance program. Twenty-two

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[4]Delores Story, "The Effectiveness of Two Types of Group Counseling Upon the Self-Concept and Observed Classroom Behavior of Low-Motivated Male High School Juniors," (Ph.D. dissertation, Michigan State University), 1967, p. 13.

[5]Buford Stefflre, Theories of Counseling (New York: Wiley and Sons, 1965).

[6]Benjamin Cohn, Ed., Guidelines for Future Research on Group Counseling in the Public School Setting, (APGA, Washington, D.C., 1967).

consultants, nationally known for their knowledge and experience in psychological and educational fields of group work participated in the seminar. They endorsed and encouraged the use of group procedures in public school settings, defined group counseling, exchanged ideas pertaining to group process, and identified research problems to be considered in future research designs.[7]

The guidelines the conference provided and the endorsement of the U.S. Office of Education gave public school administrators the courage to allow group counseling research with students in their schools. Researchers could then move from the laboratory to on-the-site or field investigations.

The resulting investigations of group counseling were directed principally toward evaluating the effectiveness of the experience in terms of increased personal adjustment and academic achievement with problem students. Researchers were more welcome in the schools to conduct group counseling studies; however, after twenty years, counselors still have not embraced group counseling as a standard part of their role in school guidance programs. The same issues of no significant research results are being rehashed over and over. Sue[8] asked the profession if

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[7]Cohn, p.v.

[8]Donald Wing Sue, "New Directions in the Personnel and Guidance Journal," Personnel and Guidance Journal, (September 1975), pp. 16-20.

it had researched a plateau from which it could go further? Since 1956, two recognized goals of modern educational institutions were to discover methods that identified under-achieving high ability students and to find ways to develop their potential to the fullest.[9] Educators became interested in meeting these goals by using group counseling as one way to assist large numbers of students solve academic problems, personal-social problems, and educational-vocational planning. Counselors hesitated; Corsini,[10] in 1957, called group counseling the Pandora's Box of therapy. Within it, one found a plethora of notions about methods and techniques that ranged from the mystic to the scientific. One recognized need was to find a model or technique to consolidate the relationship between facts and theories.[11] Kolberg, in 1975, emphasized

> The model for counseling practice is often unclear because of ambiguous or contradicting assumptions concerning the nature of its developmental objectives. Without a systematic framework, counseling programs may become a potpourri of approaches, a set of eclectic activities oriented toward secondary prevention. The overall goal of counseling and development is well recognized but difficult to achieve. Counseling as

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[9]Educational Policies Commission, Manpower and Education, (Washington, D.C.: National Education Association of the United States of America, Association of School Administration, 1956).

[10]R. J. Corsini, Methods of Group Psychotherapy, (New York: McGraw-Hill, 1957).

[11]Story, p. 1.

> a practice and counselor education programs are at a cross-roads in the search for an effective educational model.[12]

Furthermore, Eysenck[13] in 1961 challenged counselor educators to produce counselors who could help more than two-thirds of their clients. Kohlberg, LaCrosse, and Ricks,[14] in 1971, questioned the effectiveness of counseling and psychotherapy for adolescents and young adults. Bergin,[15] in 1972, reanalyzed Eysenck's earlier conclusions and cautiously concluded that counseling "has modestly positive effects."

In 1975, Sprinthall[16] said "change is possible if we are willing to accept the consequences that ensue. In the framework of science, each generation stands on the shoulders of the previous one as the wall of knowledge

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[12]Lawrence Kohlberg, "Counseling and Counselor Education: A Developmental Approach," Counselor Education and Supervision, (June 1975), p. 250.

[13]H.J. Eysenck, Ed., "The Effects of Psychotherapy," Handbook of Abnormal Psychology: An Experimental Approach, (New York: Basic Books, 1961), p. 711.

[14]L. Kohlberg, R. LaCrosse, and D. Ricks, "The Predictability of Adult Mental Health From Childhood Behavior," in B. Wolman (ed.) Handbook of Child Psychopathology. (New York: McGraw-Hill, 1972), p. 1271.

[15]A.E. Gergin and S.L. Garfield (Eds.), "The Evaluation of Therapeutic Outcomes," Handbook of Psychotherapy and Behavior Change, (New York: Wiley, 1971), p. 228.

[16]Norman Sprinthall, "Fantasy and Reality in Research; How to Move Beyond the Unproductive Paradox," Counselor Education and Supervision, (June 1975), pp. 310-322.

grows slowly and steadily." He recommended the need to develop a model for field-based research and to conduct the research in the school and community where the process occurs as a part of the school operation. There must be a commitment on the part of school systems to such work.[17]

Story and Mezzano created and implemented such a model with companion research in 1965. The problems that led to their studies could be as accurately stated as the problems that led to the current study ten years later. Mezzano recognized that

> Most research efforts investigating group counseling with underachievers have been expended in evaluating the effectiveness of adjustment and academic achievement. But the type of counseling offered has received only limited attention. The variability of content in counseling experiences and the differential effect which it may have upon counseling outcomes has by and large been neglected by researchers. Although numerous techniques have been tried, information concerning the effectiveness of these techniques is sparse. Due to rising enrollment in educational institutions and a lack of trained personnel, the problem of wasted talents continues to grow.
>
> It is therefore of importance to further experimental investigation in this area in an attempt to discover methods which allow more students to be handled by fewer counselors in a manner which also produces significant results.[18]

Story understood that

> Counselors are well aware of the complex problems that face the modern adolescent, but solutions to these

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[17]Sprinthall, p. 314.

[18]Joseph Mezzano, "Group Counseling With the Low-Motivated Male High School Students--Comparative Effects of Two Uses of Counselor Time," (Doctor's dissertation, Michigan State University), 1966, pp. 1-2.

> problems are less obvious. The counselor sees the adolescents' expressions of hostility, aggression, asocialness, and forced compliance in his behavior. And because this behavior pattern usually inhibits the potential development of the student and disrupts the ordinary functioning of the school routine, the counselor is faced with the problem of how to aid the student within the framework of the school setting.[19]

The Story and Mezzano investigations were creative and there were statistically significant outcomes to warrant replication. The model they provided for counselors and educators preceded the one Sprinthall recommended for current implementation. However, no further research has been conducted in education with team counseling nor have their studies been replicated. Stefflre,[20] in 1968, cautioned students against ignoring previous research. He warned "counseling goals would not be firmly identified and research findings would not be firmly established as practice until doctoral dissertations were taken from the shelves, dusted, and scientifically replicated."

Stefflre predicted the counseling profession would stagnate and stumble in research efforts, prior to 1980, unless counselor educators recognized the value of scientifically examining past research.

Sue,[21] in 1975, accused the counseling profession of "suffering from a stagnation in its own pool of ideas.

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[19]Story, pp. 1-2.

[20]Buford Stefflre, vocational theory class notes, 1968.

[21]Sue, p. 17.

Let's stir up the waters and see what surfaces." Sue[22] and Sprinthall[23] conceded that the scientific approach to research should not be abandoned or blamed for the apparent "idea stagnation" or "unproductive paradox" in current research; they advocated looking at all aspects of inquiry and not at one narrow component. For example, replication and extension of previous research is greatly needed in the counseling profession if results are to be firmly established.

The current study is designed as a replication of research conducted by Story and Mezzano for their doctoral studies.

Statement of the Problem

The purpose of this study is to assess the effects of two types of counseling with low-motivated male high school students upon self-concept, study-habits, and attitudes, academic achievement, and change in observed classroom behavior. Within the study, an attempt is made to determine if the low-motivated students are more effectively changed with (1) group counseling alone or (2) group counseling in conjunction with individual counseling.

The Theoretical Background

The theory underlying this investigation is that low-motivated male students will change behavior through

[22]Sue, pp. 18-19.

[23]Sprinthall, pp. 311-315.

the approach of dynamic group counseling conducted by a counseling team. The study is an attempt to determine if the low-motivated student's behavior is more effectively changed with group counseling alone or with group counseling in conjunction with individual counseling. The theory underlying the study attempts to explain how behavior can be effected through the group process.[24] Because adolescent behavior problems arise in social situations and often involve authority figures, one solution to the problem may be found in group situations in which authority figures are present and active.[25] Therefore, a counseling team, one male and one female, simulates a quasi-family atmosphere for the group counseling sessions.[26] A social climate results that becomes a safe testing ground for reality because the counselors will represent parental figures that may be perceived as facilitating and inhibiting; families facilitate and groups create competition. Students in high school may perceive the counselors as warm, accepting parent figures, but they will also represent potential authority.

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[24] Story, p. 3.

[25] E. E. Mintz, "Special Values of Co-Therapy and Group Psychotherapy," International Journal of Group Psychotherapy, Vol. 13, (1963), pp. 127-132.

[26] J. Adler and J. R. Berman, "Multiple Leadership in Group Treatment of Delinquent Adolescents," International Journal of Group Psychotherapy, X (1960), pp. 213-225.

In addition to the simulated family structure, the use of two counselors allows each counselor to observe and analyze student-counselor interaction.[27] In addition, two counselors provide double observance and analyses of student-peer interactions and non-verbal behaviors. Interacting with the group in a dynamic, direct manner will enable the counselors to use a variety of techniques. A partial list of techniques are:

1. Social Modeling. Using significant peers or adults to illustrate desired or undesired behaviors or attitudes.

2. Peer Pressures. Using reactions or statements of valued peers as a change force.

3. Authority Pressures. Using coercion, love-acceptance, approval-disapproval to induce change.

4. Learning. Employing principles of learning such as reinforcement, conditioning, generalization, and transfer of training to bring about desired responses and extinguish undesired ones.

5. Experience Control. Manipulating experiences to provide opportunity for feedback on success and failure or to open new awareness.

6. Knowledge Dissemination. Providing the individual with new information about himself, his environment, and his possible future.

7. Increasing Self-Confidence. Identifying desirable elements within the self and showing how they can lead to success.

8. Goal Appraising. Dividing goals into attainable elements or presenting new goals.

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[27] G. Konopka, "Group Work and Therapy," A Decade of Group Work, ed. C.E. Hendy (New York: Association Press, 1948), pp. 39-44.

9. Insight and Awareness.

   a. Developing understanding within the client about how the self's defense mechanisms work (e.g., blocks and threats such as anger; withdrawal tendencies such as fear).

   b. Exploring available alternatives of actions and their possible consequences for the client.

   c. Providing feedback to the client concerning the kind of person he is--his uniqueness and his commonness.

   d. Teaching the client to re-label experiences with more flexible or accurate categories.

10. Relationship Pressures. Using the forces of the counselor-client interaction to

   a. give understanding to the client of his and others' emotions,

   b. undergird his confidence in receiving and giving acceptance,

   c. learn to express repressed feelings, and

   d. develop selectivity in discharging certain emotions.[28]

Through the use of these techniques the counselors can actively guide, direct, and manipulate the group members toward changed behavior.

Many approaches are necessary because although participants may want change at one level of cognition, change represents fear of the unknown and is usually

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[28]William Farquhar and Norman Stewart, "Counseling the Low-Motivated Male: A Working Paper," (mimeographed paper, Michigan State University), April 1966.

frightening and anxiety-provoking.[29] Fear and anxiety may operate initially in the group situation to inhibit growth and open up competition for individual support and nurturance from one or both of the counselors.[30] To modify the fear and anxiety and increase client self-awareness, the investigation theorized that growth could be facilitated by giving the clients individual counseling as well as group counseling. In individual counseling the participant might feel less threatened. Hopefully, he would transfer his new learning to the group experience.[31] The individual counseling sessions would use stimulated recall methodology (IPR) from group session tapes to allow the participants to see themselves as observers and thus recognize and release their defenses in a manner less traumatic than individual or group counseling could provide separately. The use of stimulated recall from the individual counseling sessions would yield insights additional to those gained by delayed confrontation.[32] The

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[29] B.L. Kell and W.J. Mueller, Impact and Change: A Study of Counseling Relationships, (New York: Appleton-Century-Crafts, 1966).

[30] J. Mann, "Some Theoretical Concepts of the Group Process," International Journal of Group Psychotherapy, V (1955): 235-242

[31] Story, p. 8.

[32] Robert H. Woody, David Krathwohl, Norman Kagan, and W.W. Farquhar, "Stimulated Recall in Psychotherapy Using Hypnosis and Video Tape," The American Journal of Clinical Hypnosis, Vol. VII, No. 3, (January 1965), pp. 234-241.

introduction of the immediate recall technique will help eliminate the time problem between counseling sessions that Story gave as one reason for less student change than she expected in group-individual counseling.

Once the behavior is recognized the participants must make the decision to relinquish or to retain their self-defeating defenses.[33] For the most economical and effective behavior changes all groups will have specific structure and goals.[34] The group sessions will be designed to reinforce participants as they relinquish defenses and develop stronger self-concepts. New learning will then be transferred from the group experience to individual classroom behavior and academic performance.

Structured counseling in the group will also provide a systematic approach to reinforce attempted changes and to reach the inner core of the individual.[35] Replay of the selected parts of the previous group sessions will be introduced at the beginning of group sessions to help

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[33]Milton R. Cudney, "Elimination of Self-Defeating Behavior," (workshop materials, Western Michigan University, Kalamazoo, Michigan, 1973).

[34]Thomas L. Feister and William W. Farquhar, "An Investigation of the Process and Outcomes of the Elimination of Self-Defeating Behavior Workshops: A Minimum Group Treatment for Specific College Student Problems," (manuscript, Michigan State University), April 12, 1973.

[35]Carl Thoresen, "A Behavioral Approach to Encouraging College Accomplishment in Disadvantaged Youth: An Exploratory Study," (manuscript, Michigan State University, 1966).

overcome the time lost in recall process. The interpersonal recall technique will not be introduced until the group has become cohesive enough to have developed individual objectives and to move from the leader structure of the first few sessions.

> The continuity of interaction of the total group is a series of shifting and alternating emotional balance as changes occur. The group moves through a succession of emotional phases that will involve hostility, withdrawal, irrelevance, pairing for security and/or leadership, dependency, or combination of these. These phases characterize the group situation and work to support and further the goals of the group. Whatever change occurs in the individual group members results from the direct impact of these phases upon him. Impact of change is reinforced through an affective approach in which the adolescent can find reassurance, acceptance, understanding, and self-awareness.[36]

Stock and Thelen found group or group-individual experiences and interactions to reflect clients' behavior changes in:

(a) open self-acceptance

(b) opening lines of communication in family relationships, and

(c) social relationships

(d) developing a greater degree of emotional stability, and

(e) achieving more acceptance by teacher standards.[37]

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[36]Story, p. 6.

[37]Dorothy Stock and Herbert Thelen, "Emotional Dynamics and Group Culture," Group Therapy and Group Function, eds., Rosenbaum and Berger (New York: Basic Books, 1963), pp. 83-86.

Five assumptions underlie the theory of this study:

1. Attitudes, self concept, and self-defeating behaviors have developed over a period of years; behavior cannot be modified in a short period of time. Previous counseling of five to ten weeks has not produced significant results; 16 to 20 weeks of intensive, dynamic counseling induced some observed change. In a public school setting it is not realistic to implement group counseling for a longer time span of one semester as a part of the school's service. The addition of behavioral structure and IPR to affective counseling assumes that change can be induced and reinforced for greater behavior change than that shown in previous studies.

2. Client-centered, non-evaluative counseling should induce insight that motivates the client toward change. Research does not support this concept. Hostility, fear, anger, frustration, dejection, and "acting-out," or withdrawal, are a part of a low-motivated student's existence. The student will not wait for insight, and if he is non-verbal, he cannot interact with the counselor and group. The non-directive counseling can reinforce negatively another failure in communication and can cause increased failure. The low-motivated student requires structure and acceptance in a forceful relationship with peers and significant adults.

3. Research assumes that low-motivated underachievers are homogeneous; but many factors are combined

in each individual that developed low-motivation. Many tools must be used in a variety of ways to create change. The underachiever may be aware of his low-motivating defenses and use them in a masterful way in his defense against authority.

4. Personal-social factors such as self-concept, relationships to parents, expressions of impulses, social adjustment, academic motivation, and anxiety levels cause underachievement and refusal to apply academic skills. As behavior changes occur and self-defeating defenses are dropped, other behaviors will take their place. Improved academic achievements will occur as a by-product of these changes.

5. The behavior changes, the improved academic achievements, and the group counseling will act as a cycle of reinforcers to enable the student to internalize the changes as motivations for permanent behavior modification.

The theory adopted for this study is that low-motivated students will change behavior through the approach of affective and structured group counseling conducted by a male-female counseling team. Within the study, the prediction was made that students who receive group counseling by a male-female team in conjunction with individual counseling by a male-female team will develop a more positive self-concept, achieve improved social

relationships, acquire a greater degree of emotional stability, and have more acceptance from peers and teachers than those students who experienced only group counseling.

The Hypotheses

Within this study four basic research hypotheses were investigated:

1. The self-concept scores of low-motivated students who received group counseling in conjunction with individual counseling will be greater at the completion of the experiment than the self-concept scores of low-motivated students who had only group counseling. The self-concept scores of the students who received group counseling will be greater than the self concept scores of low-motivated students who had no counseling.

2. The study habits and attitude scores of low-motivated students who received group counseling in conjunction with individual counseling will be greater at the completion of the experiment than the study habits and attitude scores of low-motivated students who had only group counseling. The scores of the students who had group counseling will be greater than the study habit and attitude scores of low-motivated students who had no counseling.

3. The academic achievement of low-motivated students who received group counseling in conjunction with individual counseling will be greater at the third grade

period during the experiment and at the fourth grade period at the completion of the experiment than that of low-motivated students who had only group counseling. The academic achievement of the students in group counseling will be greater than that of low-motivated students who received no counseling.

4. The teacher observed behavior rating scores of low-motivated students who received group counseling in conjunction with individual counseling will be greater at the completion of the experiment than that of low-motivated students who had only group counseling. Teacher behavior ratings will be greater for the students in group counseling only than that of low-motivated students who received no counseling.

Definition of Terms

For the purposes of clarification, the terms frequently used in this research are defined as follows:

1. Michigan-M Scales: An objective measure of academic motivation, entitled the Michigan State M Scales, developed by William W. Farquhar and his staff under the auspices of the U.S. Office of Education, Project No. 846

2. Low-Motivated Student: A male in his junior year at Hope High School, Hope, Arkansas, who ranks in the lower half of his class on the Michigan M Scales

3. Counseling Team: Two professionally trained counselors, one male and one female, with experience in both individual and group counseling

4. Individual Counseling: A learning-oriented process conducted on a one to one basis in which the counseling team attempts to help one male student share, explore, and respond to his personal feelings and experiences

5. Group Counseling: A learning-oriented process shared by a group of eight to ten male students and a professional counseling team in which the students react to their experiences together, sharing personal feelings with each other and responding to these shared feelings with new and past reactions in an attempt to better understand themselves and each other

6. Group-Individual Counseling: A learning-oriented experience, defined the same as number five, except that the students and counseling team meet as a group every other week and on alternate weeks the counseling team meets with each group member for individual counseling

7. Dynamic Counseling Approach: Counseling in which the counselors take an active role in interactions and reinforce expressed feelings about self, attitudes toward teachers, parents and other authority figures, hostile-angry feelings, and stated purposes and/or goals while counselors encourage free expression of experiences

and feelings by active participation, producing irrelevant or defense-producing communication that is blocked by counselor leads and reactions

8. Structure: A procedure through which topics and goals are printed and given to the counseling teams for each counseling session until the groups have become cohesive and the students have learned to develop goals that involve personal feelings and experiences rather than talk about cars, movies, or other typical conversation content

Unique Aspects of the Study

The current study is unique because counseling teams combining affective and behavior modification techniques conducted all of the counseling. The combined approach has not been researched at the secondary level of education and it is being implemented in an attempt to motivate the underachieving male in less time than either the affective or the behavior modification techniques used separately have produced in previous studies. Delores Story[38] and Joseph Mezzano,[39] co-researchers, introduced team counseling with group and group-individual counseling at the secondary level of education. The results of their research indicated significant grade point improvement nine weeks after completion of the experiment. Teachers

[38]Story.

[39]Mezzano.

observed significant behavior changes as a result of group-individual treatment. The researchers recommended that the counseling sessions be extended beyond the eighteen weeks of their investigation if more positive self-concept and permanent behavior changes were to occur. The public school semester is eighteen weeks long and it is impractical to plan group counseling programs for a longer time span than one semester. Replicating the Story and Mezzano studies and extending them by combining the affective and behavioral counseling techniques is an attempt to overcome the time problem indicated in both of their findings. Previously, no attempt has been made to provide secondary counselors with a technique or model that allows them to move between the affective and the behavioral poles of their respective educational backgrounds.

Organization of the Study

The general plan of the study is to present in the following chapter a review of research which is related to the problem of aiding underachievers through group procedures at the secondary level of education. In Chapter III, the design of the study will be described with reference to sampling procedure, method of treatment, the null hypotheses, and the types of analyses. The results of the analyses will be reported in Chapter IV. Chapter V will include the summary, conclusions, discussion, and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Research in group counseling in college settings grew rapidly from 1952 to 1965. The number of published articles grew proportionately with the popularity of the study of groups. The publications were confusing because the problems of group methods were not completely understood and reported research was often vague. The reports covered wide areas of concern and researchers used regular laboratory methods of research that were often inappropriate. The research problem boundaries were too broad and the problems were not adequately described.

Articles concerning groups in the broad areas of education and psychology are scattered through American professional literature. An accumulation of documented group experiences and research is recorded from a variety of sources: the retarded, the aged, the homosexuals, the married couples, the alcoholics, and the delinquents. Group methods reported in the literature range from the psychoanalytic and client-centered to lecture and inspirational methods.[1]

[1]J.W. Klapman, Group Psychotherapy: Theory and Practice, (2nd ed., New York and London: Grune and Stratton, 1959).

Counselor educators became proponents of the group process in education, and their leadership generated a flood of research that defined the type of situations for which group counseling was appropriate. In 1967, the United States Office of Education identified group counseling and defined problems to be considered for future research in the public schools.[2] A phenominal amount of school research with groups deluged the journals.[3]

The influence of counselor educators, the endorsement of the United States Office of Education, and the embryonic development of group work as a scientific investigation generated so many articles that from 1947-1971 publishers founded five new journals devoted to major specialization fields of group work. The characteristics of the publications increased the complications of any literature review because, in general, "periodicals devoted to group work appear to be less research and theory-oriented, more applied, and more readable than many periodicals primarily devoted to individual counseling and psychotherapy."[4]

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[2]Benjamin Cohn, Ed., Guidelines for Future Research on Group Counseling in the Public School Setting, APGA, Washington, D.C., (1967).

[3]William L. Mermis, Jr., "Bibliography of Group Literature," American Personnel and Guidance Journal, Vol. 49, (April 1971), pp. 652-653.

[4]Richard W. Warner, Jr., "Research in Counseling," Personnel and Guidance Journal, Vol. 53, No. 5, (January 1975), p. 382.

Richard W. Warner, PGA Research Editor, appeared to encourage the submission of articles that were in the form of subjective thought. He also encouraged investigators to report research that was not based upon objective evaluation.

In his comments in the January, 1975, PGA Journal research column, he stated

> This column is based on the belief that research can provide meaningful data to the practicing counselor. While individual studies may not provide sufficient data on which to act.... This column will provide that data by reviewing current research in a specific area and the emphasis will be on implications for the counselor, so there will be little if any information on research design or statistical procedures. Readers who desire to have results of their research and/or innovative approaches considered for review....send to....Warner.[5]

Warner[6] must have encountered problems when he reviewed the articles submitted for publication since he contradicted his earlier statement by published detailed procedures for selecting reasonable research goals and objectives in his September column. Warner further stated that he would emphasize the questions of appropriate evaluation and research design in future research columns.

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[5]Ibid.

[6]Richard W. Warner, Jr., "Planning for Research and Evaluation: Necessary Conditions," Personnel and Guidance Journal, (September 1975), pp. 10-11.

The current review is based upon publications for the past nine years. Story[7] and Mezzano,[8] companion researchers in 1965, were among the first to conduct a group experiment in the public school setting and the first to introduce team counseling in that environment. The current investigation is a replication of Story's work and an extension of Mezzano's. The empirical research they reviewed prior to 1967 was not reviewed in this study. Only empirical research studies from 1967 through 1975 that related directly to group work with secondary high school students were included.

A bibliography of studies conducted in schools other than secondary is included in Appendix A.

Story and Mezzano summarized the literature that was related to students and group counseling for the purpose of motivating underachievers.

Story[9] employed two subsections in her review

1. Studies investigating the effect of group counseling in producing behavior and/or attitude change
2. Quasi-experiments investigating the process of group counseling

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[7]Story.

[8]Mezzano.

[9]Story, pp. 13-14.

Mezzano[10] used four subsections in his review

1. Factors associated with academic motivation
2. Outcome studies that have investigated the effects of group counseling on underachievers
3. Comparative studies that have investigated the differential effects of different methods and/or techniques of counseling of underachievers
4. Team counseling

For this study, the Story-Mezzano subsections were combined into four categories:

1. Effects of group counseling in producing behavior and/or attitude change
2. Effects of group counseling on underachievers
3. Effects of different methods and/or techniques of counseling on underachievers
4. Team counseling

Effects of Group Counseling in Producing Behavior and/or Attitude Changes

One of the investigations conducted almost simultaneously with the Story research was completed by Van Stewart.[11] The purpose was to study the effects of what he labeled the Perceptual Modification Model (PMM) of group counseling as a method of modifying the behavior of failing tenth graders. Students, randomly selected

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[10]Joseph Mezzano, p. 11.

[11]Ronald Van Stewart, "The Effects of Group Counseling on Acceptance of Self, Acceptance of Others, Grade Point Averages, and Teacher Rated Behavior of Failing Tenth Grade Students," (Doctor's thesis, University of Tulsa, 1969).

for the study, were each failing one subject and had an I.Q. of at least 90 on the Lorge-Thorndike Intelligence Test. The subjects were again divided into one control group and four experimental groups, the latter being exposed to eight sessions using the Perceptual Modification Model treatment method.

Tests were given to the groups of students and data collected in an attempt to measure similarities and differences within the groups. The Acceptance of Self and Others scale was administered to the students. Grade point averages were obtained from classroom teachers at the beginning of the study and from official school records at its conclusion. Classroom behavior was measured by the use of a locally devised teacher rating scale.

The study was designed to test for significant differences between the failing tenth grade students who received the PMM counseling treatment and those of the control group who did not receive counseling on (1) acceptance of self, (2) acceptance of others, (3) academic grade point averages, and (4) teacher behavior ratings.

The *t*-test was used to test for differences between the experimental and control groups for acceptance of self, acceptance of others, and grade point averages. The results were significant at the .05 level of confidence for one of the four experimental groups on grade point average. The Mann-Whitney U test was used to test

for differences between the treatment and control groups for teacher rated behavior. The analysis was significant at the .05 level for one experimental and the total of the four experimental groups. None of the other experimental groups or total experimental groups for behavior in class, attitude toward authority, attitude toward instruction, or general enthusiasm were significant at the .05 level.

There was significant indication that the group treatment did lead to improved study habits.

Factors in Van Stewart's study which probably contributed to the negative findings were the selection of groups that were not homogeneous, the short period of counseling, and the lack of a follow-up study.

Rader[12] examined the effects of group counseling on secondary school underachievers who had had three or more negative contacts with disciplinarians. Subjects and counselors were volunteers. Rader invited counselors from 15 schools to administer biographical data forms, Behavior (FIRO-B), and the Adjustive Check List (ACL) to 238 underachievers. Ten counselors in nine schools within three states conducted the research with 125 subjects (Ss) divided into nine groups. Counselors divided the Ss into 68 experimental (Es) and 57 controls (Cs) according to

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[12]Florence C. Rader, "Group Counseling with Secondary School Norm Violators," (Doctoral dissertation, Rutgers-State University of New Jersey, 1971).

available periods on schedule cards. Es received group counseling for 12 weeks and Cs were promised treatment at a later time. Following pre-testing and 12 weeks of treatment of Es, the FIRO-B and the ACL were administered to all Ss at the 13th session.

Analysis of variance of the pre-test indicated that the Es and Cs came from different populations. Analyses of co-variance were computed with the post-test scores; pre-test scores and IQ scores were used as covariates to adjust for initial data differences. The null hypothesis of no significant differences between Es and Cs following treatment on the six scales of the FIRO-B and on the self-confidence and self-control scales of ACL were not rejected. Subject grades were not examined.

The following factors may have contaminated the Rader results: control groups were used, but outside variables influence and inter-action could not be controlled. Randomization was included in the design but was abandoned because of fixed class schedules. Control groups were not comparable to the volunteer experimental groups. Counselor interpretation and execution of their role with the groups was not examined. Twelve weeks did not allow time for treatment change to occur. Samples from the nine schools were pooled into total Es and Cs and may have obscured significant changes between Es and Cs within individual schools.

Harrison[13] replicated the Rader experiment, but she extended the treatment time to 24 weeks. She investigated the role of the counselor, assured randomization by working with the administration of the schools for scheduling, studied the process variables, and added other instruments for statistical analyses.

Harrison examined the effects of 24 weeks of group counseling on secondary school norm violators who had had three or more contacts with disciplinarians. After 12 weeks of treatment for experimentals, all subjects took the Fundamental Interpersonal Orientation Behavior (FIRO-B) and the Adjustive Check List (ACL). Both measures were readministered during the 13th week and again during the 25th week following 24 weeks of treatment.

Analysis of covariance, using pretest scores and IQs as covariates to adjust for initial differences between experimentals and controls, was computed for posttest scores of subjects on FIRO-B and ACL after 24 weeks of counseling. Differences significant at the .05 level were found in the interaction effect on only one FIRO-B scale, expressed inclusion. No significant differences were found between experimentals and controls on the other five scales of FIRO-B and the self-confidence and self-control scales of ACL.

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[13]Margaret Kirk Harrison, "Group Counseling with Secondary School Norm Violators," (Doctoral dissertation, Rutgers-State University of New Jersey, 1971).

Chi-square values of the change in the number of disciplinary contacts of Es and Cs over the 24 treatment weeks were calculated. No significant differences were found.

Analysis of covariance was computed to test the significance of the differences between grade point averages of subjects preceding and following group counseling. No significant differences were indicated.

Participating counselors took the Minnesota Teacher Attitude Inventory (MTAI) and the Strong Vocational Interest Blank (SVIB) at the beginning of the study. Scores obtained from the Es and Cs were used to analyze changes in Ss scores associated with counselors' scores. Counselors' scores were designated "high" or "low" according to their scores on the MTAI and the SVIB. A nonparametric sign test was used and Chi-squares computed to analyze changes in subjects' scores. Differences in subjects' scores in groups led by counselors who were "high" and "low" on the MTAI were significant at the .01 level on FIRO-B variable of expressed affection. Differences were not significant on the other five FIRO-B scales or the two scales of ACL. Scores of subjects led by counselors' "high" and by counselors' "low" on the SVIB were significant at the .01 level on FIRO-B, wanted affection, and the ACL, self-control, scales. The null hypotheses were not rejected for the other five scales of FIRO-B or for the self-confidence scale of ACL.

A number of dimensions in the Harrison study may be criticized. Subjects' contacts with others were not controlled. Counselors encountered difficulty finding time to complete the research requirements. Counselor skill variables were not explained. The differences between schools may have been obscured by the design which pooled all Es and Cs.

DeEsch,[14] in a dissertation directed by Merle Ohlsen, investigated the effects of group counseling for ten percent of the Pennsburg School District students who had been frequently referred to the disciplinary offices of their schools during the first ten weeks of school. The study included students in grades seven through ten and was of a cross-section of socio-economic levels. Subjects who met the criteria were randomly assigned to either the Treatment Group or to the Delayed Treatment Group. Each subject was committed to group counseling following a presentation and intake interview. Any potential subject who had not made a commitment was terminated from the study.

Within each major group, the research subjects were placed in counseling groups at the counselors' discretion and within the guidelines prescribed by Ohlsen. Pre- and

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[14]Jesse Barry DeEsch, "The Use of the Ohlsen Model of Group Counseling with Secondary School Students Identified as Being Disruptive to the Educational Process," (Doctoral dissertation, Indiana State University, 1974).

-post measures were administered prior to and following ten weeks of treatment. Analysis of variance with repeated measures was used to test data results.

The purpose of the research was to examine the effects of group counseling upon (1) specific disruptive school behaviors, (2) changes in self-concept, (3) achievement of idiosyncratic goals, and (4) changes in academic achievement. Five criterion measures were used to determine outcomes of the experience: a Pupil Behavior Inventory, an Idiosyncratic Goal Rating Scale, the Tennessee Self Concept Scale, a grade-point-average index, and the frequency of referrals to the discipline office.

Five null hypotheses related to change within the group and five related to comparing the Treatment Group with the Control Group were investigated.

The five null hypotheses tested for differences within the Group Treatment resulted in four significant levels of change at the .05 level. Self-concepts improved; grade point averages improved; self form scales improved; and the number of discipline referrals decreased. No change occurred in teacher rating scores.

The five null hypotheses tested for differences between the Treatment Group and Delayed Treatment Control Group resulted in one producing a significant difference at the .05 level. The referrals to the discipline office decreased for the Treatment Group and increased frequency

for the Control Group. No statistical differences were indicated between the groups on the other measures. The scores for the treatment groups increased on the self-concept measures and on the grade point index enough to recommend further research. Little difference was found between teacher or self rating scores between the control and treatment groups. Both groups exhibited change on the Idiosyncratic Goal Rating Form.

DeEsch's study did not specify sample size or the length of each session. The skill of the counselors was ignored or omitted in the specifications of the design, and the research conditions were scanty in description. However, these criticisms are minor in nature. In general, DeEsch conducted one of the better pieces of research related to group motivation of low achieving students.

Taylor[15] attempted to assess the effects of group counseling on the self-concept and on the academic achievement of high school sophomores in required health classes. Fifty-one individuals were exposed to ten weeks of group counseling while 43 control subjects were being given ten lectures on health. Pre- and post-data were examined by analysis of variance. There were no significant

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[15]Theodore David Taylor, "Effects of Group Counseling on Self-Concept and Academic Achievement of Selected High School Sophomore Health Classes," (Doctoral dissertation, Oregon State University, 1970).

differences in the Tennessee Self-Concept Scales nor in the grades of the subjects at the .05 level of confidence.

Weaknesses of design and methodology were: vacillating group size, undefined counselor role, limited time of sessions, insufficient time allowed for treatment change to occur, unreported description of techniques, and ignored randomization.

Cirigliano[16] evaluated the effects of group encounter experiences upon the self-concepts of high school students from a Long Island suburban community. The design was that of an experimental control, pre-test-post test, extended post-test design. For five months, each encounter group consisting of from ten to fourteen students and a school psychologist met twice a week for 45 minutes per session. The time involved was considered part of the students' daily educational schedule. The experimental and control groups each contained 56 students. Both groups were given the Tennessee Self-Concept Scale at three different time intervals: immediately preceding the group encounter, immediately after the encounter ended, and three months after the encounter ended. Three other variables were analyzed besides the control and experimental groups: sex, IQ, and age of the subjects. A four way analysis of variance with a factorial design of

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[16]Rocco Joseph Cirigliano, "Group Encounter Effects Upon the Self-Concepts of High School Students," (Doctoral dissertation, St. John's University, 1972).

2 x 2 x 2 x 2 was computed for all six sets of scores. An F test of variance was computed to compare the two categories of each variable on each of the six sets of scores and to examine the differences in variance that existed in self-concept scores when the experimental group was compared to itself in the three testing situations.

There were no significant results in the Cirigliano study.

Cirigliano's design controlled for treatment and time effects. There was no description of treatment content or process. The psychologist's experience and role were not reported. The sampling methods were vague and randomization was ignored.

In the suburban Pittsburgh high school, Martin[17] studied the effects of group counseling on eleventh and twelfth graders who had exhibited negative attitudes and behaviors toward teachers, had poor school attendance, and had frequent office referrals.

The experiment consisted of two experimental and one control group. The experimental groups were under the direction of two counselors. The treatment groups met twice a week for 45 minutes per session for a five month period of time. Each session was recorded so the

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[17]Samuel D. Martin, "The Effects of Group Counseling on Selected Senior High School Students Who Demonstrate Negative Attitudes and Behaviors," (doctoral dissertation, University of Pittsburgh, 1973).

goals, techniques, and results of each session were held constant. Results of each session were carefully recorded from the counselors' viewpoint and from the students' perceptions via a feedback instrument.

The Wilcoxon signed and summed rank test of statistical differences was used to analyze the K.D. Delinquency Proneness Scale, the Cohn Teacher Inventory, actual number of days absent, and the total number of office referrals during the treatment period.

The results of the study did not show statistically that group counseling produced more positive results for the experimental groups than for the control group.

Counselor and student reactions to the study indicate definite, affective modifications in the experimental groups as a result of group counseling: (1) the students had a perception of personal problems that caused difficulty in school; (2) they were able to express these problems more easily with other group members; and (3) they had a more pronounced willingness to have their attitudes and behaviors scrutinized by the other group members. The Martin study may be criticized because of: vague sampling methods, lack of follow-up evaluation, and lack of time for treatment change to occur. The focus of the group sessions was on the collection of data rather than on the attitudes, beliefs, and behavior of the students. The

design was not described; therefore, replication with other populations would not be possible.

The intent of Murphy's[18] study was to determine the effects of group counseling with chronically absent sophomores on the variables of attendance, achievement, and behavior.

From a population of 1400 sophomores enrolled in four Maryland county high schools, 120 students were identified as chronically absent. From each school, 30 students were randomly selected and assigned to one of two groups: one control and one treatment.

Practicing, experienced high school counselors with similar training conducted eight weeks of non-directive group counseling, one session per week, each lasting 46 minutes. The students in the control group received no counseling. All sessions were recorded in three schools; none were recorded in the fourth school. Randomly selected tapes were analyzed to verify that non-directive counseling had been used. Data were analyzed using *t*-tests.

Statistically, students who received group counseling had significantly fewer absences than the control group had at the .01 level. The data available could not

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[18]Francis Joseph Murphy, "A Study of the Effects of Group Counseling on Attendance at Senior High School Level," (Doctoral dissertation, The George Washington University, 1975).

be analyzed to make conclusions about grades or office referrals.

Sampling and random assignments were made more precisely than in other studies reviewed. The design for data collection and analyses was not planned to control for internal validity. The description of treatment variables was vague. Time was not allowed for follow-up nor for treatment changes to occur.

A study of the effects of different lengths of group counseling duration in relation to attendance, grades, and study habits was conducted by Chase[19] at Oliver Ames High School.

The chronic absentee was defined as any student who had been inexcusably absent 18 or more days during the 1967-68 academic year. The tenth, eleventh, and twelfth grade students made up the population from which 52 students were identified and invited to participate in group counseling.

The participants were randomly assigned to either a control or to an experimental group composed of 26 students. The experimental group was then randomly divided into five counseling groups. Two of these groups were

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[19]Bradford Stevens Chase, "A Study of the Effects of the Duration of Group Counseling on the Study Habits and Attitudes, Absenteeism, and Achievement of Chronically Absent High School Students in Easton, Massachusetts," (Doctoral dissertation, University of Wyoming, 1971).

counseled for a duration of eight weeks; two were counseled for 16 weeks; and one group was counseled for 24 weeks.

A pre-test-post test design was employed to analyze the following measurements: absence frequency, grade point averages, and the total score on the Brown-Holtzman Survey of Study Habits. Post-session measures were obtained simultaneously at the end of the 1969-1970 school year. Pre-session data were examined for differences through the use of a t-test. No significant differences were found at the .05 level of significance between either experimental or control groups, or between experimental groups of equal duration, or between participants and non-participants. Analysis of covariance was used to detect treatment differences within each dependent variable. There was a significant difference between group means on the Study Habits Survey; Scheffé's procedure showed that the treatment groups attained higher scores than did the controls. Chase concluded that the eight-week duration was the most optimal treatment; attendance did not improve, but the grades of the experimental groups tended to be higher, and the grades of the control groups dropped. The results of the study indicated that group counseling had potential for improving study habits and attitudes.

The Chase study was one of the most scientific experiments reviewed. However, replication would be

difficult because the counselors' technique and the materials used for the treatment sessions were not reported.

Effects of Group Counseling on Underachievers

Finney and Dalsem[20] reported an investigation of the effects of group counseling on gifted underachievers who fail to live up to their potentials. The unique aim of this study was the evaluation of large samples of students using a number of different groups and counselors over a two year period to allow the maximum opportunity for group process to be effective. Four groups of sophomore females and four of sophomore males were randomly assigned to counseling, and four of each sex were assigned to control groups. The groups averaged 12 students per group. The students and counselors participated from six high schools of the Sequoia High School District. Counselors' experiences with group work ranged from zero to nine years each. The groups met once per week for one hour for four semesters (two years). For training purposes, 14 counselors in the district met weekly in training seminars led by a psychologist who was experienced in group counseling.

At the end of the study, data on 69 of the counseled students were compared with data on the control group of 85 students.

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[20]Ben C. Finney and Elizabeth Van Dalsem, "Group Counseling for Gifted Underachieving High School Students,"

There were no differences or improvement in GPA, on scores of the California Study Methods Survey, or in student ratings by teachers on improved cooperation in the classroom. Student absenteeism decreased, but there was no significant difference in the number of behavior referrals.

On the California Psychological Inventory (CPI), an 18 scale inventory, there was a significant difference for the treatment groups on the Capacity for Status, Sociability, Social Presence, Tolerance, Achievement via Conformance, Achievement via Independence, and Psychological-Mindedness Scales. There were also significant differences on the factor scores "Social Poise" and "Capacity for Independent Thought and Action."

The Finney-Van Dalsem study was the most sophisticated and longitudinal one reviewed. The following limitations of this study may be noted: non-traditional underachievers were reluctantly included in the study in order to have a large sample. Group leaders changed during the two year treatment period. Some leaders attended training seminars; others did not. Techniques and their effects on the group were not reported. Students in treatment groups were identified by both teachers and peers because participants were excused from class for group

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counseling. The class absences and the teachers' knowledge about the research might have contaminated teacher ratings and grades. Attrition was high because of the long duration of the study. The elaborate design was impressive to review but impractical to undertake in a public school situation.

The most outstanding outcome of the study was the acceptance of group counseling by the teachers and administrators of the six schools involved in the research.

Tang[21] studied specific treatment conditions in group counseling that would induce academic achievement among male high school underachievers.

The male eleventh and twelfth grade students whose grade-point averages earned in the tenth and eleventh grades were more than one standard error of estimate below their predicted grade-point averages on a standardized test of mental ability were randomly assigned to three groups: the experimental groups, the aware control group, and the unaware control group. Seventeen sessions were held twice a week. Planned topics related to motivations for achievement, and effective study habits and skills were introduced in each session. The counselor used specific non-verbal and verbal cues to reinforce achievement, favorable

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[21]Kendel Sunico Tang, "Inducing Achievement Behavior Through a Planned Group Counseling Program," (Doctoral thesis, University of Hawaii, 1970).

attitudes toward school, or favorable responses made by students in reference to study, grades, and attendance.

The aware control group was composed of subjects informed of their potential but who declined to participate in the group counseling program. The unaware control group was composed of subjects who had neither been informed of their potential nor invited to attend the group counseling.

The results revealed that the experimental group was significantly better than the aware and unaware control groups on motivation criteria at the .05 level of significance. The experimental group had a significantly higher GPA than the unaware control group but it was not significantly different from the aware control group for GPA. No significant differences between the three groups on school attendance was indicated. No significant differences were apparent between the aware and the unaware control groups on any of the study criteria measures.

The reported results of the Tang study indicate that structured group reinforcement counseling was effective in improving motivation to achieve better study habits and skills and higher grade point averages of male high school underachievers. The detailed description Tang reported for the treatment would allow replication of the study with other student populations.

A doctoral study by High[22] assessed the effects of group counseling on underachievers who volunteered for counseling. From the volunteers were selected 54 tenth grade students who met the following criteria: each had a grade point average of less than 2.0 for the previous semester and stanine scores of six or higher on the Verbal Reasoning and Numerical Ability section of the Differential Aptitude Test. The students were randomly assigned to either of three treatment or three control groups that met 40 minutes, bi-weekly, for nine weeks.

The Mooney Problem Check List was administered at the end of nine weeks to all groups and the grade point average for all groups was computed at that time. The same data were obtained in follow-up testing nine weeks after treatment.

Data were analyzed, using the t-test for standardized test scores and grade point average. The Mann-Whitney U test was used to analyze data from the Mooney Problem Check List. The counseled group compared to the non-counseled group did not perform significantly better at the .05 level on standardized test performance, academic performance, or fewer problems reported.

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[22]Belva Howle High, "Group Counseling With Underachieving Tenth Graders," (Doctoral dissertation, University of South Carolina, 1970).

The purpose of a study by Cordell[23] was to evaluate the effectiveness of group counseling using a structured approach of reinforcement in reducing absenteeism among students. The study was designed to investigate the effectiveness of the treatment in improving self-concept and academic achievement.

Eleventh grade subjects who had missed 15 or more days of school were randomly assigned to either one of two treatment groups: counselor-structured, verbally-reinforced experimental or control counseling.

One male or one female counselor conducted ten sessions of 50 minute duration. Each counselor had two seven member groups, one experimental group and one control group. Counselor training sessions were held prior to and during the investigation; emphasis in training sessions was on structured group exercises.

The Tennessee Self-Concept Scales (TSCS), attendance records, and grade point averages were used to determine the differences in attendance, self-concept, and achievement. The TSCS was administered before and after the counseling experience to both the experimental and control groups.

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[23]Lonnie Gene Cordell, "The Effect of Structured Group Counseling on the Self-Concept, Attendance, and Achievement of Absentee-Prone High School Students," (Doctoral dissertation, The Ohio State University, 1973).

Data were analyzed using the two-way analysis of variance. The level of significance was set at .05.

Cordell's analyses indicated significant changes occurred at the .01 level for self-concept and attendance. Grade point averages were not significantly different for students in the structured group counseling sessions. Further statistical analyses indicated that structured group counseling seemed equally effective regardless of the sex of the student.

A planned follow-up allowing time for treatment process was not included in the design to further analyze academic achievement. The Cordell study was one of the most carefully controlled investigations reviewed.

In an exploratory study, Shirts[24] used the Self-Consistency Principle of Behavior Change and the Retroflexive Reformation process of group counseling to determine relative effectiveness in producing academic achievement and behavior change in ten deviant high school students.

The theory of the self-consistency principle focused upon eliciting behavior change in a person by changing his actions, which once changed would lead to change in his attitudes. The principle was unique because the

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[24]Elmo Shirts, "Effects of the Self-Consistency Principle of Behavior Change and the Retroflexive Reformation Process of Group Counseling on the Academic Achievement and Behavior of Selected High School Students," (Doctoral dissertation, Oregon State University, 1971).

current emphasis in group and individual counseling was directed toward changing a person's attitude, which then led to changed actions.

The practical application of the study was centered around the adage; "You learn best that which you teach." The high school students, judged by teachers to be deviant in their behavior, were used as co-therapists (retroflexive reformation).

Each student was assigned to work with an elementary school behavior problem student in an effort to improve the younger child's behavior. The high school counselor provided traditional counseling sessions to supplement role and status changes of the high school deviant (co-therapist). Shirts theorized that the emphasis away from "introspection sessions" and toward "real life" experiences tended to avoid many of the traumatic hurdles traditionally associated with and preceding change in counseling and psychotherapy. Behavior improvement as judged by parents and teachers was reported for seven of the ten participants. The same seven showed significant improvement in academic achievement and grade point average at the ten percent level of probability.

Shirts' unique approach should be replicated. He reported the technique and theory in sufficient detail for additional research of his new idea. Minor criticisms of the study are: one counselor was depended on for the

"talk sessions" and the study appeared to be weighted in favor of the "co-therapist" role. The motivation of the participating students to be involved in the study was not reported.

Effects of Different Methods and/or Techniques of Counseling On Underachievers

Hess[25] investigated the comparative effects of group counseling and individual counseling on the self-adjustment and social adjustment of 15 year old males identified as potential dropouts. The results of a Pupil-Holding Power Data Form were used to identify 55 potential dropouts. The identified students were randomly assigned to five groups: group counseling, individual counseling, group tutoring, individual tutoring, and no treatment.

The counseling was conducted over a six month period. The California Test of Personality was administered pre- and post-treatment. The pre- and post-test change in self-adjustment and social-adjustment was examined by the one-way analysis of variance.

Analyses of the results indicated: (1) Group counseling and individual counseling treatments resulted in higher gain between pre- and post-scores of three of the

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[25]Hess Tyler, "A Comparison of Group Counseling with Individual Counseling in the Modification of Self-Adjustment and Social Adjustment of Fifteen Year Old Males Identified as Potential Dropouts," (Doctoral dissertation, University of Virginia).

ten social adjustment variables when compared with the control groups. (2) There was little distinction among the five groups when changes in self-adjustment were examined. (3) The overall results of the study were statistically inconclusive; however, student and faculty reports indicated that selected group counseling procedures would help potential dropouts in positive modification of personal characteristics.

Several observed weaknesses of the Taylor study might have contributed to the negative outcomes. The students' motivation for assistance was not reported. The level of the one counselor's experience and training in relation to the tutor's training and experience was not examined. No replication of treatment was included in the design; no follow-up evaluation was conducted, and no time was allowed for treatment change to occur.

Hanley[26] completed a doctoral study in which the self-concepts, academic achievement, and vocational maturity of underachievers receiving group counseling were compared with the same variables of underachievers receiving individual counseling. The subjects were tenth and eleventh grade underachievers of average or higher ability. Hanley assigned students randomly to treatment or to

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[26]Dennis Eugene Hanley, "The Effects of Short-Term Counseling Upon High School Underachievers' Measured Self-Concepts, Academic Achievement, and Vocational Maturity," (Doctoral dissertation, Purdue University, 1970).

control groups, to one of the two counselors, and verified the homogeneity of the groups for ability, grades, and sex. Individual and group subjects participated in six 50 minute counseling sessions and one structured discussion concerning values and attitudes.

The Vocational Development Inventory (VDI), The Self-Concept Ability Scale (SCA), and Grade Point Index (GPI) were used to assess vocational maturity, self-concept, and academic achievement. The VID, SCA, and GPI were administered pre-, post-, and six weeks following the counseling treatment.

In analyzing the results, Hanley found change over treatment was reflected by statistical significance in post-experimental measurements on the VDI and on the GPI within the three factor analyses. Further, t-test analyses of the means of the counseled and control group member responses to the VDI, SCA, and GPI demonstrated that short-term group or individual counseling did not change either the high school underachievers' self-concept of ability or their academic achievement, or did it increase their vocational maturity.

The following minor criticisms are relevant to the Hanley study: (1) the sample size was inadequate and (2) the techniques used by the counselors were not described. Overall, the investigation was carefully designed and conducted in a scientific manner.

Myrick and Haight[27] investigated the comparative effects of group counseling and individual counseling on the grades and absenteeism of 427 underachieving students from grades nine through twelve in 11 schools. Each counselor from the 11 schools identified 36 students who met the underachieving criteria and randomly assigned the students to one of three experimental groups. Three additional groups of 11 students received group counseling since this was the primary variable of interest. Each counselor met with his group and his individual counselee bi-weekly over a period of four weeks; meetings were 50 minutes long. All counselors followed a basic personal growth group counseling model designed for the study.

The criterion measures for evaluation were pre- and post-grades and school attendance records. A group counseling evaluation form was administered to the participants and teacher evaluations were solicited.

Students evaluated the group experience positively; teacher evaluations of individual students were positive toward group counseling.

Myrick and Haight analyses based on teacher and student evaluations indicated that the group counseling approach used in this study had a positive impact on underachieving students. However, analyses of grades and

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[27]Robert D. Myrick and Donald A. Haight, "Growth Groups: An Encounter with Underachievers," The School Counselor, (November 1972), 20:2, 115-121.

absenteeism measures indicated that group counseling was no more effective than the individual counseling approach. The conflicting outcomes of the Myrick and Haight data could be interpreted to imply that class attendance and grade point averages were not effective for evaluating group counseling. The results appear to support the behaviorist theory that increased attention must be given to both behavioral outcomes and self-reports as opposed to global measurement criteria. Global criteria might be insensitive to steps in individual change processes.

There are several weaknesses in the Myrick and Haight design that might have led to the negative results. No mention was made in the report concerning the motivation of the students assigned to the groups. Homogeneity in the selection of the subjects was not mentioned. No socio-economic descriptions of the 11 schools from which the participants were selected were reported. No information was reported that verified the validity of either the teacher or the student criterion measures.

Detailed descriptions of the content and process for the group counseling sessions were reported; the content and process for the individual sessions appeared to have been left to chance. The weaknesses cited loaded the design in favor of the group counseling method and the statistical results of this study are to be questioned.

The theory has enough merit to warrant further investigations.

Hodge[28] explored the difference in intensive group counseling and individual counseling on failing Chicano males. The variables considered were attendance, failing grades, classroom behaviors, and verbal intelligence.

Sixty Chicano males from the tenth and eleventh grades were identified by teachers as failing. The students were randomly divided into four groups: (1) intensive group treatment, (2) individual counseling, (3) informal control group, and (4) control group.

The individual counseling technique was of a problem-solving nature and concentrated on academic failure. The group counseling technique used was intensive encounter, concentrated on self-examination.

Pre- and post-data were collected on attendance, failures, classroom behavior, and verbal intelligence. The analysis of variance, two-factor mixed design with repeated measures, was used to examine the data.

Hodges reported statistical significance at the .05 level, indicating that intensive group procedures produced more positive change in failing Chicano males than did individual counseling in attendance, failures, and

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[28]William E. Hodges, "The Effects of an Intensive Counseling Process on Failing Chicano Males," (Doctoral dissertation, University of Utah, 1975).

classroom behavior. The results indicated that no statistical significance was demonstrated between verbal intelligence scores.

The study sample size was small; motivation of subjects selected was not mentioned; homogeneity of subjects assigned to groups was assumed. The experience and training of the counselors were varied: no in-service training was reported. The factors listed tended to contaminate the study outcomes.

Gourley[29] investigated the effectiveness of three different methods of treatment to help high school underachievers improve academically: (1) individual counseling, (2) group guidance, and (3) verbal reinforcement.

The population selected for treatment consisted of 48 ninth and 48 eleventh grade underachievers as determined by discrepant scores in achievement and aptitude.

Differences in the group treatments were analyzed for achievement by pre-post-test scores on The Sequential Test of Educational Progress and the School and College Ability Test. The data were treated by analysis of covariance. Study habit and attitude tests were administered after 18 weeks of treatment. The data were treated by one-way analysis of variance.

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[29]Martha H. Gourley, "The Effects of Individual Counseling, Group Guidance, and Verbal Reinforcement on the Academic Progress of Underachievers," (Doctoral dissertation, University of North Carolina at Chapel Hill, 1970).

Gourley reported analyses of the data which revealed that neither individual non-directive counseling, group guidance, nor verbal reinforcement had helped the academic underachiever improve on academic measures. Individual non-directive counseling seemed to help improve study habits and attitudes of underachievers.

Gourley did not report design controls that would prevent inconsistent findings. The following were limitations noted: (1) pre- and post-testing had produced consistent practice effects that could have been prevented in another design; (2) the process of counseling was not explained for replication purposes; (3) the content of the treatment was not stated; (4) student motivation was not reported; and (5) neither the homogeneity of students assigned to the groups nor the homogeneity of the counseling methods employed was reported.

The effects of two group counseling approaches on the anxiety, self-concept, and the study habits and attitudes among high school seniors were compared by Birmingham.[30]

Teachers referred 40 of 96 seniors who were randomly assigned to four, ten member groups: three experimental and one control group. Prior to and immediately

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[30]Donald R. Birmingham, "The Effects of Counselor-Led Group Counseling and Leaderless Group Counseling on Anxiety, Self-Concept, and Study Habits Among High School Seniors, (Doctoral dissertation, North Texas State University, 1974).

after ten weeks of treatment, the Tennessee Self-Concept Scale, and the Brown-Holtzman Survey of Study Habits and Attitudes were administered to all subjects.

Group I subjects received counselor led counseling from an experienced group counselor who used a group centered approach. Group II received ten weeks of leaderless counseling, facilitated by programmed audio tapes prepared for the personal growth groups. Group III was exposed to ten weeks of audio-taped music. Group IV did not meet.

Birmingham's data indicated: (1) leaderless group counseling did not significantly affect anxiety, self-concept, or the study habits and attitudes of high school seniors; (2) counselor-led group counseling did not affect the anxiety, self-concept, or the study habits and attitudes of the seniors in the treatment groups. The analyzed data did not indicate significant differences between the four groups on any one of the three instruments used to measure subject behavior.

Even though more controlled than most of the studies reviewed, the limitations in Birmingham's design could have had an adverse effect on the results. The major limitations were: (1) failure to report the motivation of the students selected for treatment, (2) identification by teacher recommendation of students to receive treatment, (3) reliance upon the competency of one counselor failed to

provide for replication of treatment, and (4) failure to test for homogeneity of the assigned groups.

Garrison[31] conducted a comparative investigation to assess the effectiveness of three types of behavioral group counseling for modifying deficient study skills, attitudes, and achievement of selected tenth grade students.

Three variations of behavioral group counseling were used: (1) counselor reinforcement, (2) a combination of counselor reinforcement and peer models, and (3) peer models alone.

Four schools participated in the study; the counselors involved received training in behavioral counseling. The same treatment was used by one counselor for each school following a thorough discussion by all counselors in the training sessions.

Robinson's SQ3R method and items from the Brown-Holtzman Survey of Study Skills and Attitudes (SSHA) formed the basis for goal attainment measurement.

The sample was drawn from students' scoring in the lower quartile of the SSHA using national norms. Five groups were formed through random assignment of subjects: three behavioral counseling groups, one placebo, and one

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[31]Clifford B. Garrison, "A Comparative Investigation of Behavioral Counseling Group Techniques Used to Modify Study Skills, Attitudes and Achievement of Selected High School Pupils," (Doctoral dissertation, State University of New York at Buffalo, 1971).

control group. The groups met once a week for six sessions plus one final, post-counseling, testing session.

The goals were identified to the students and agreeable to them. The counselor reduced goal attainments to a series of clear increments of change so the increments could be positively reinforced whenever they were displayed.

Garrison reported no significant differences in the three treatment group means. Three comparisons were found to be significantly different: (1) the SSHA means were significantly different between the counselor reinforcement group and the placebo group. The fourth quarter grade point averages were significantly different between (2) the three combined reinforcement groups and the placebo group and (3) the models alone reinforcement group and the placebo group.

No significant differences occurred among the three behavior counseling groups for each of the three measurement criteria: the SSHA, the Tennessee Self-Concept Scale, and the fourth quarter academic average.

Garrison used adequate sample, and provided for process control and static control. The design provided for replication and established counselor uniformity.

A criticism relevant to Garrison's study was that the number of sessions held was possibly too few for the essential differences in counseling treatment to have a

significant effect. The homogeneity of the assigned groups was not reported and could have affected attitude change. The pre- and post-test measures could have produced consistent practice effects which might have been avoided with another statistical design.

The differences in effect between group or group-individual counseling on the achievement and self-concept of students in Coordinated Vocational-Academic Education (CVAE) programs were investigated by Siebenthall.[32]

The subjects ranged from 14 to 17 years of age. The Cattell Culture Fair Intelligence Test was administered to 81 subjects, 43 male and 38 female. Ranked from the highest to the lowest by intelligence scores, the students were assigned to three ability levels.

Students in the three levels were randomly assigned to form two treatment groups; the two groups were randomly subdivided into four smaller groups. Four equally trained and competent counselors were randomly assigned to the treatment sub-groups and to the control groups. Procedures were outlined and discussed with the counselors during one pre-training session.

Group counseling met for ten, forty minute sessions; group-individual sessions met for seven, forty

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[32]Curtis Alan Siebenthall, "The Effect of Group and Group-Individual Counseling on Achievement and Self-Concept with Coordinated Vocational-Academic Education Students," (Doctoral dissertation, North Texas State University, 1972).

minute group sessions and three 35 minute individual sessions. Pre-test and post-test scores from the ITED Assessment Survey were used to compare the achievement variables, and the Davidson-Long Adjective Checklist scores were used to compare self-concept variables. Analysis of co-variance was employed with pre-test scores as the covariant.

Siebenthall concluded that (1) group-individual counseling should be provided as an approach to aid CVAE students to become more effective in their academic environment, (2) fewer group sessions should be used, and (3) group-individual counseling should be used to help CVAE students to function more adequately in the school environment.

Relevant to the Siebenthall study, three criticisms were observed: the number of sessions was too few for the differences in treatment to have a significant effect on self-concept; no follow-up was reported; and the subjects' motivation to be involved in counseling was not considered.

In his doctoral study, Easterwood[33] compared the effectiveness of group counseling to group plus individual counseling (1) at different times of the day (a.m. versus p.m.), (2) upon the sexes, and (3) upon the races.

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[33]Harold B. Easterwood, "An Investigation of the Effectiveness of Group Versus Group-Individual Counseling with Potential High School Drop-Outs," (Doctoral dissertation, University of Southern Mississippi, 1973).

Students from 32 senior high schools were randomly selected from 174 pupils identified as potential dropouts to become subjects in the study. By stratified randomization, the subjects were divided into two counseling groups of eight pupils each and one control group of 16 pupils. The groups were one-half male and one-half female; one-half black and one-half white.

The counseling groups met twice weekly, one hour each session, for 18 weeks; one group (G1) met Tuesday and Thursday mornings; the other group (G2) met Tuesday and Thursday afternoons. The control group (G4) received only the standardized testing, but met at no other time. Group three (G3) was composed of nine students who voluntarily went to the investigator for individual counseling and agreed to attend either G1 or G2 group sessions in addition to the individual counseling.

The investigator-counselor used loosely-structured discussions that centered around topics of mutual interest to individuals in the group. The eclectic approach was used in each session and the counselor maintained a neutral position as the group facilitator.

The Tennessee Self-Concept Scale and the California Test of Personality were administered four times to all subjects: Pre-test (T1), Action Period (T2), Post-test (T3), and Post-wait Period (T4).

Conclusions were based on three-way analysis of variance with an F level of .05 for significance. The analyses comparing the mean scores for the groups that received group counseling only with the groups that received group plus individual counseling revealed the group plus individual treatment had more positive gains.

The total positive concept scores indicated significance at the .05 level for the races in G1 at the end of the post-wait period. The total adjustment score means were significantly different for the races in G2 at the end of the post-wait period. Significance at the .05 level was found between grade point averages for G2 treatment at the end of the action and post-wait periods. Comparison of morning and afternoon groups (G1 versus G2) revealed more positive gains in criterion mean scores from T1 to T4 for students who belonged to the morning group (G1).

Criticisms relevant to the Easterwood study were: (1) one counselor-investigator might have biased the results; (2) no provision was reported for testing group homogeneity; (3) testing four times in such a short time span produced consistent practice effects that could have contaminated the study.

Team Counseling

The review of literature related to team counseling with groups involving academic underachievers at the

high school level revealed no studies since the Story and Mezzano investigation.

However, two therapists working as a team continued to attract increasing attention in other group situations. Dual leadership has been reported as an effective group technique to use with the aged, drug-abusers, delinquent adolescents, schizophrenic patients, and with homosexuals.

Mintz states

> ....that in combining their insight, technical abilities and other assets, two therapists can offer more to a group than either could offer alone; that a situation close to the primary family is created, providing patients an especially good chance to work out reactions toward both parent figures; that patients of both sexes are offered a like sexed therapist with whom to identify; and that special difficulties in relating to either male or female authority figures can be worked out by patients who would have been unwilling to choose a therapist of the more threatening sex.[34]

Pfeiffer and Jones believe co-facilitating a group is superior to working alone. They discussed the following major advantages:[35]

1. Co-facilitators complement each other's styles.
2. One facilitator can work with the person experiencing significant emotionality, while the other facilitator assists participants in

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[34]E.E. Mintz, "Special Values of Co-Therapists in Group Psychotherapy," International Journal of Group Psychotherapy, 13 (1965), pp. 127-132.

[35]J. William Pfeiffer and John E. Jones, "Co-Facilitating," The 1975 Annual Handbook for Group Facilitators, University Associates Publishers, Inc., LaJolla, California, (1975), pp. 219-222.

dealing with their reactions to the situation.

3. Co-facilitating offers each partner support for his personal development.

4. Co-facilitating can generate a synergistic effect through the personal and professional interchange resulting from working toward a common task.

5. Co-facilitating provides behavioral models of individuals coping with their own life situations and it also offers a model for meaningful, affective two-person relationships.

6. Co-facilitators share leadership and the dependency problem that often develops in groups is somewhat dissipated.

7. Co-facilitators can check each others' timing of events and provide some respite from the detailed monitoring necessary to provide meaningful interventions.

8. Co-facilitating can offset biases of each facilitator and issues can be focused more sharply.

Pfeiffer and Jones[36] recognized some disadvantages of co-facilitating leadership with groups, but the disadvantages might be obviated if facilitators recognized the possible danger spots, shared an orientation with similar kinds of group situations, and regularly solicited feedback from each other to check on behavioral perceptions. If co-facilitators would be honest with each other, Pfeiffer and Jones believe the advantages outweigh any potential problems or dangers in a dual leadership model.

Mezzano[37] investigated the effects of two types of counseling on self-concept, study habits and attitudes,

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[36]Ibid., pp. 219-222.

[37]Mezzano.

behavior, and academic achievement of low-motivated male high school students. One treatment was group (G) counseling; the second treatment was group counseling and individual (GI) counseling in conjunction. In both treatments, the group counseling was conducted by a team consisting of a male counselor and a female counselor. Counselor time was kept constant for each treatment because of the implications for practicing counselors.

Ninety-six students were identified as low-motivated on the Michigan M-Scales. Of the 96 identified, 74 students accepted the invitations extended to them to participate in the study. Stratification categories were determined according to the free hours the 74 students had in common. From each group that was free to participate in group counseling, seven students were randomly selected to be members of the six experimental groups, and the others were assigned to the control group. The six groups were randomly assigned to either group (G) or group plus individual (GI) counseling treatment. Randomizing techniques were used to assign the pairs of counselors (the counseling teams) to each experimental group. The unassigned students were designated as the control (C) group and received no treatment.

For students to be included in the final analysis, attendance was compulsory to 80 percent of the group sessions; 16 sessions for the G counseling treatment, or eight

sessions for the GI treatment. Individual sessions were on a flexible schedule and attendance was not a problem. Eighteen students in each of the two experimental groups met the minimum requirements for post-treatment analysis. Twenty-eight students were in the control group for the post-treatment analyses.

All students involved in the study were low-motivated, as measured by the Michigan M-Scales; however, a number of the students could not be classified as typical underachievers, as measured by grade point average. For the purpose of the Mezzano[38] study, an underachiever was operationally defined as a student who scored at 100 or above on the Otis Test of Mental Ability and whose grade point average for the first term was 5.00 or less (5.00 = C- on a 12 point scale). Using those criteria, nine of the G counseling subjects, nine of the GI subjects, and 11 of the C group subjects were classified as underachievers. In order to equalize the groups, two students from the control (C) group were randomly excluded from the analysis.

A one-way analysis of variance was performed to test the nine null hypotheses of his study. The F statistic at the .05 level was used to test for significance between the treatment groups. Change in counseled students was assessed by comparing them to the control students on

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[38]Mezzano.

four criteria: (1) GPA, (2) study habits and attitudes, (3) self-concept, and (4) behavior ratings.

The results of the study indicated that group counseling,when conducted with low-motivated male high school students,did produce a significant and positive change in grade point average,when compared to a no-treatment control group. With underachievers, both G and GI counseling did produce a significant and positive change in grade point average when compared to a no-treatment C group. The results were delayed; the data indicated that the effects of group counseling were dependent on a period of incubation before newly gained insights were transferred to academic improvement.

Story, [39] co-researcher with Mezzano, investigated the effects of two types of group counseling upon the self-concept and observed classroom behavior of low-motivated male high school juniors. The theory underlying the study attempted to explain how behavior change was effected through the group process.

The design of the study was a post-test only with control group model.

In order for subjects to be included in the final analysis, they must have attended 80 percent of the sessions, or 16 for the G counseling treatment and eight sessions for the GI treatment. Eighteen students in each of

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[39] Story.

the two treatment groups, or 36 out of the original 42, met the minimum requirements for past-treatment analyses. Twenty-eight of the original 32 subjects were in the C group for post-treatment analyses. The proportionate attrition rate was evenly distributed between the counseled and non-counseled groups.

Change in counseled students within the treatment groups was assessed by comparing them to the control students on eight criteria: seven Minnesota Counseling Inventory sub-scales and the Haggerty-Olson-Wickman Behavior Rating Scale, abbreviated form.

The analysis of variance technique was used to test the two null hypotheses of the study. The F statistic at the .05 level was used to reject the null hypotheses.

The two basic hypotheses of the study were:[40]

1. The self-concept scores of students who received both group and individual (GI) counseling in conjunction would be more positive at the completion of treatment than the self-concept scores of students who had either group (G) counseling or no group counseling.

2. The teachers' ratings of behavior scores of students who received combined GI counseling would be more positive at the completion of treatment than the behavior rating scores of students who had either G counseling alone or no counseling.

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[40]Story, p. 9.

The Minnesota Counseling Inventory was used as the dependent measure of self-concept and an abbreviated eight item form of the Haggerty-Olson-Wickman Behavior Rating Scale was used as the dependent measure of observed classroom behavior.

The major findings which emerged from the study were:[41]

1. With exposure to treatment time held constant, group counseling was effective with or without the addition of individual counseling for self-concept and observed behavior change.

2. GI counseling exceeded G counseling alone in generating more positive perception of the student's ability to cope with reality.

3. GI counseling exceeded G counseling alone in producing teacher estimates of more conforming behavior in the classroom.

4. No differences were found among GI counseling, G counseling alone, and the control group on changes in coping with Family Relationships and in self-perception of Conformity to social standards; [two of the seven Minnesota Counseling Inventory sub-scales].

Summary

The review of literature relevant to group counseling with low-motivated secondary students emphasized:

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[41]Story, pp. 62-63.

(1) the effects of group counseling in producing behavior and/or attitude change, (2) the effects of group counseling on underachievers, (3) the effects of different methods and/or techniques of counseling on underachievers, and (4) team counseling.

Evidence justifying the effectiveness of group counseling was inconclusive.

The majority of the research reviewed on group counseling with low-motivated high school students had weaknesses in design and methodology that might have prevented consistent findings. The common limitations were: (1) inadequate sample sizes, (2) improper or vague sampling methods, (3) no control for motivation, (4) poor sampling techniques, (5) lack of control for counselor training or bias, (6) failure to provide treatment of reasonable length for change to occur, (7) no control groups, (8) inadequate reporting of treatment variables, (9) lack of follow-up evaluations, (10) inadequate or missing descriptions of the content and process of the treatment, (11) total reliance upon the skill and personality of one counselor, (12) failure to reduce variance among subjects because of no control over number of sessions attended, (13) failure to report the length of time per session, (14) weak statistical procedures, (15) weak or missing design control for internal validity, and (16) sex of subjects or counselors in groups seldom reported.

The use of groups in therapy, counseling, and guidance dates back to the early 1920's when Adler employed "collective counseling." Group therapy and counseling practice focused on correction, remediation, or crisis intervention. Research in the public schools continued that emphasis. Field research efforts became trapped between the humanistic and the scientific philosophies of the last century.

Practitioners, counselor educators, and social psychologists in the 1970's began to employ creative techniques in field research. Counselor educators recognized that evidence to support group counseling effectiveness remained problematic.

A summary of the major characteristics of the various studies may be found in Table 2.1.

TABLE 2.1 Literature review summarizing group counseling outcome studies.

Researcher	Population	Treatment Time	Experimental Conditions	Outcome Measures	Statistical Findings
			Effects of Group Counseling in Producing Behavior and/or Attitude Change		
Van Stewart (1969)	Failing 10th grade students	8 sessions	Group counseling using perceptual modification model vs. control	Acceptance of Self & Others Scale	NSD
				Grade point average	NSD
				Teacher Rating Scale for Classroom	NSD
				Behavior-Attitude Scale	NSD
				Teacher Observed Study Habits	SD - Study Habits
Rader (1971)	Secondary students with 3 or more negative discipline reports 9 schools	12 sessions	Group counseling vs. control	FIRO-B six scales	NSD
				ACL Self Confidence Scale	
				Self Control Scale	NSD
Harrison (1971)	Secondary students with 3 or more negative discipline reports 9 schools	24 sessions	Group counseling vs. control	FIRO-B Six Scales	NSD - five scales SD - expressed inclusion
				ACL Self Confidence Scale	NSD
				Self Control Scale	NSD
				Number of discipline contacts	NSD
				GPA	NSD
DeEsch (1974)	Grades 7-10 10% of student body often referred to discipline office	10 sessions	Group counseling treatment group vs. delayed treatment group Ohlsen Guidelines	Pupil Behavior Inventory	NSD
				Idiosyncratic Goal Rating Form	NSD
				Tennessee Self Concept Scale	NSD
				GPA	NSD
				Frequency referrals to discipline office	SD
Taylor (1970)	Four 10th grade health classes	10 sessions	Group counseling treatment vs. control	Tennessee Self Concept	NSD
				Teacher constructed unit for academic achievement	NSD
Cirgliano (1972)	High school students	Twice weekly for 5 months	Group counseling group encounter vs. control	Three time interval analyses for Tennessee Self Concept	NSD
				Sex, IQ, Age	NSD

Researcher	Population	Treatment Time	Experimental Conditions	Outcome Measures	Statistical Findings
Martin (1973)	11th and 12th graders with negative attitudes	Twice weekly 60 men 16 weeks	Group counseling treatment vs. control	K.D. Delinquency Proneness Scale The Cohn Teacher Inventory Number of days absent Number of office referrals Student feedback data	NSD NSD NSD NSD Positive
Murphy (1975)	10th grade students chronically absentees	46 min. per week for 8 weeks	Group counseling non-directive treatment vs. control	Attendance records GPA 2nd & 3rd grading periods Referral to discipline office	SD NSD NSD
Chase (1971)	10th, 11th, 12th grade chronic absentees	8 weeks 16 weeks 24 weeks	Group counseling non-directive vs. control	Absence frequency GPA Brown-Holtzman Survey of Study Habits and Attitudes Attendance Records	NSD SD - treatment grades improved control dropped SD NSD - 8 weeks the optimal treatment
		Effects of Group Counseling on Underachievers			
Fenney and Van Dalsem (1968)	10th grade gifted academic underachievers	Once per week for 2 years	Group counseling group vs. control	California Study Method Survey Absentee referrals Discipline referrals GPA Teacher ratings California Psychological Inventory 9 scales	NSD SD - 2nd year NSD NSD SD - 2nd year SD - 2nd year
Tang (1970)	10th & 11th grade male academic underachievers	twice weekly for 8 and a half weeks 17 sessions	Group counseling verbal reinforcement = structured for experimental group vs. aware control vs. unaware control	GPA Attendance records Motivation to achieve counseling instrument Study Habit & Skills Counselor Instrument	SD NSD SD SD

Researcher	Population	Treatment Time	Experimental Conditions	Outcome Measures	Statistical Findings
High (1970)	10th grade gifted underachievers	40 minutes twice weekly for 9 weeks	Group counseling group vs. control	Mooney Problem Check List - end	NSD
				Mooney Problem Check List - 9 weeks	NSD
				GPA - end treatment	NSD
				GPA - nine weeks post treatment	NSD
				Stanford Achievement Test - nine weeks post treatment	NSD
Cordell (1973)	11th grade cronic absentees	55 minutes once weekly for 10 weeks	Structured group counseling verbal reinforcement group vs. control	Attendance records	SD
				Tennessee Self Concept Scales	SD
				GPA	NSD
Shirts (1971)	Ten high school males deviant in behavior	5 months	Group counseling retroflexive process	Behavior ratings by teachers 7/10	SD
				parents 7/10	SD
				GPA 7/10	SD
			Effects of Different Methods and/or Techniques of Counseling on Underachievers		
Hess (1969)	15 year old males identified as drop outs	One per week for 6 months	Group counseling vs. individual counseling vs. group tutoring vs. individual tutoring vs. control, no treatment	California Test of Personality Self Adjustment 10 scales	NSD
				Social adjustment 7 scales	SD in three scales NSD in four scales
				GPA	NSD
				Teacher Behavior Evaluation	NSD
Hanley (1970)	10th and 11th grade gifted underachievers	50 minutes per week for six weeks	Group counseling vs. individual counseling	Vocational Development Inventory (VDI)	NSD
				The Self-Concept of Ability Scale (SCA)	NSD
				Grade Point Index (GPI)	NSD
				6 weeks after treatment	
				VDI	SD
				SCA	SD
				GPI	SD

Researcher	Population	Treatment Time	Experimental Conditions	Outcome Measures	Statistical Findings
Myrick and Haight (1972)	Underachievers from 9th - 12th grades	Twice per week for 50 minutes for four weeks	Group counseling vs. individual counseling	GPA Attendance records Student Evaluation Forms Teacher Evaluations	NSD NSD Positive Positive
Hodges (1975)	10th & 11th grade failing Chicano males	Once per week for 1 year	Encounter group counseling vs. control group vs. individual counseling (problem-solving nature) vs. control group	Attendance records GPA	SD SD
Gourley (1970)	9th and 11th grade bright underachievers	Once per week for 18 weeks	Non-directive individual counseling* vs. group guidance vs. verbal reinforcement group vs. control group	Sequential Test of Ed. Progress School and College Ability Test *Brown-Holtzman Survey of Study Habits and Attitudes	9 NSD 11 NSD 9 NSD 11 NSD *9 SD *11 SD
Birmingham (1974)	12th grade anxious students	Once per week for ten weeks	Counselor-led group* counseling vs. leaderless group counseling using audio tapes vs. control group using audio-taped music vs. control subjects that did not meet	IPAT Anxiety Scale Tennesse Self Concept Scale Brown-Holtzman Survey of Study Habits and Attitudes	*SD NSD NSD
Garrison (1971)	10th grade students who scored in lower quartile of the Brown-Holtzman Survey of Study Habits	Once per week for six weeks	Behavioral group counseling *counselor reinforcement vs. counselor reinforcement and peer models vs. peer models alone vs. placebo control and static control	Brown-Holtzman SSHA Tennessee Self Concept Fourth Quarter GPA	NSD NSD NSD
Silbenthall (1972)	14 to 17 year old students in vocational-academic education programs	Group forty minutes for ten sessions Group-Individual forty minutes for seven sessions and thirty-minutes for three individual sessions	Group counseling vs. *group-individual counseling vs. control groups	Achievement /TED/Assessment Survey Davidson-Lang Adjective Checklist	*SD in social studies & math achievement NSD

Researcher	Population	Treatment Time	Experimental Conditions	Outcome Measures	Statistical Findings
Easterwood (1973)	Students in grades 9-12. Potential drop-outs with ability	Twice week for one hour for eighteen weeks	Eclectic approach group counseling vs. *group-individual counseling	Tennessee Self Concept	*SD
				California Test of Personality	*SD
				Dailey attendance	NSD
				Citizenship grades	NSD
				GPA	NSD
			Team Counseling		
Mezzano (1966)	11th grade male underachievers	Once per week for 18 weeks	Team counseling (one male-one female counselor) *group counseling vs. *group-individual counseling vs. control group	Tennessee Self Concept Scale	NSD
				GPA at third and fourth grading periods	NSD
				CPA nine weeks after treatment	*SD
				Brown-Holtzman SSHA	NSD
Story (1967)	11th grade male underachievers	Once per week for 18 weeks	Team counseling (one male-one female counselor) group counseling vs. *group-individual counseling vs. control group	Minnesota Counseling Inventory Six Scales	NSD
				Reality Scale	*SD
				Haggerty-Olson-Wickman Behavior Scale	*SD

*Significant condition or measure.

CHAPTER III

DESIGN AND METHODOLOGY

The primary purpose of this research is to test the effects of two types of group counseling, using the same amount of counselors' time on the self-concept, study habits and attitudes, academic achievement (GPA) and teacher rating of observed classroom behavior. Randomization, replication, and control are incorporated in the experiment to meet the three essentials of modern design.

Design

The design of this study was a post-test-only control group model. Campbell and Stanley[1] emphasize that such a design has no definite weaknesses in the control of sources of invalidity. Kerlinger concurs.[2]

The six counseling groups were randomly divided between the two pairs of counselors and the two types of counseling: group-individual and group. The experimental

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[1]Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally and Company, 1963).

[2]Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1964).

subjects' exposure time to counseling was one hour per week for 18 weeks. Those students assigned to group counseling only held group sessions once a week. Students assigned to group-individual had group sessions alternating with individual counseling or group sessions every other week. Replication was obtained by duplicating the counseling methods. The third level of the design, the control group, received no treatment. Change in the experimental subjects was obtained by comparison with the control subjects. The design is summarized in the following table.

Table 3.1.--Summary of the basic design of the experiment.

	Group Individual Counseling Method	Group Counseling Method	No Counseling Control
Counselors A & B	2 groups	2 groups	
Counselors C & D	1 group	1 group	
Total	3 groups	3 groups	1 control group

The Population[3]

A lot-motivated male, as operationally defined in this study, was a junior attending high school during the academic year 1973-74 at Hope High School, Hope, Arkansas.

[3]See Appendix B, data on population.

The male ranked in the lower half of his class on an objective measure of academic motivation, the M-Scales,[4] administered late in the fall term to the entire population of the sophomore, junior and senior classes.

According to the above criterion, 115 male junior students were classified as low-motivated. The students were invited by letter (Appendix D) to participate in group counseling. All invitations were extended by the four individuals who were the counselors in the experiment and the counselor coordinator of the school. The 100 students who accepted the invitation and decided to participate became the subjects of the study.

Sample

Before describing the characteristics of the 92 students used in the analyses, it is appropriate to account for students who were initially included in the groups, but not included in the analyses. In order for students to be included in the final analyses of the study, they must have attended the minimum of 16 sessions for the group counseling treatment or the minimum of 16 sessions for the group-individual counseling treatment (80 percent of the sessions). The minimum number of sessions was assumed to be adequate for treatment and was chosen as a

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[4]The M-Scales are more fully described in the following sections.

baseline to allow for illness or other unavoidable absences. Since individual sessions were on a flexible schedule, attendance was not a problem.[5]

By referring to Table 3.2 it will be noted that five students did not meet the requirement: three from the group-individual treatment and two from the group treatment.

Table 3.2.--Students included in the post-treatment analyses.

	Original Sample Size	Left School	Less Than Minimum Attendance	Final Sample Size
Group-Individual	30	3	0	27
Group only	30	1	1	28
Control	40	2	1 (refused testing)	37
Total	100	6	2	92

Twenty-seven students receiving group-individual counseling from counselors A and B and students receiving group-individual counseling from counselors C and D met the minimum requirements for post-treatment analyses. Of the original thirty, three dropped out of school. Twenty-eight students receiving group counseling from counselors

[5]Mezzano and Story.

A and B and students receiving group counseling from counselors C and D met the minimum requirement for post-treatment analysis. Of the original 30 students, one dropped out of school and one did not attend 80 percent of the sessions. Each of the two experimental counseling groups contained students from the post-treatment analyses.

Forty students were designated to the control group at the beginning of the study. Of those students, one refused to complete the testing and two had moved from the city. Therefore, 37 students were in the control group for the post-treatment analyses.

Since subjects were randomly assigned to counselors and treatments, it was assumed that they were homogeneous in terms of selection criteria. To lend support to this assumption, raw scores obtained on the California Test of Mental Maturity were averaged for each group and compared by means of an analysis of variance.[6,7] Data in Tables 3.3 through 3.5 support the assumption of homogeneity of groups.

Inspection of the data in Table 3.3 reveals slight differences among the three treatment groups on the California Test of Mental Maturity (CTMM).

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[6]Allen L. Edwards, Statistical Methods for the Behavioral Sciences, (New York: Holt, Rinehart and Winston, 1963).

[7]D.T. Campbell and J.C. Stanley, Handbook of Research on Teaching, (Chicago: Rand McNally and Company, 1963).

Table 3.3.--Mean raw scores for the California Test of Mental Maturity (CTMM), GPA means for each group of randomly assigned students.

	Group-Individual N=30	Group N=30	Control N=40
CTMM	52.26	52.80	52.87
GPA	1.70	1.82	1.84

The results of the analysis of variance of the CTMM scores are summarized in Table 3.4. The null hypothesis of no difference could not be rejected and it was concluded that there were no significant differences in academic aptitude between the experimental groups.

Table 3.4.--Analysis of variance of the California Test of Mental Maturity raw scores of the randomly assigned students.

Means	GI = 52.26	G = 52.80	C = 52.87	
Source of Variation	S.S.	d.f.	M.S.	F
Between treatments	14.62	2	7.31	0.02
Within treatments	29913.12	98	305.23	
Total	29927.75	100		

Necessary: $F_{.05} \geq 3.09$ to reject H_o

A second consideration in determining the pre-experimental equivalence of the groups is the fall grade point averages (GPA). The mean fall term grade point averages for each group reported in Table 3.3 reveals only slight differences among groups.

The results of the analysis of variance of GPA are summarized in Table 3.5. The null hypothesis was not rejected and it was concluded that there were no statistically significant differences among the three groups on grade point averages.

Table 3.5.--Analysis of variance of fall term grade point averages of the randomly assigned students.

Means	GI = 1.70	G = 1.82		C = 1.84
Source of Variation	S.S.	d.f.	M.S.	F.
Between treatments	0.35	2	0.17	0.45
Within treatments	38.42	98	0.39	
Total	38.78	100		

Necessary: F .05 $\geq$ 3.09 to reject H_o

Apparently the slight differences that do appear in Table 3.3 were of a magnitude that could be expected by chance.

An F value of 3.09 is necessary for 2,98 degrees of freedom before significant differences between groups can be concluded at the .05 level of confidence.

Random Assignment

A number was assigned to each population member who decided to participate in the counseling study. Stratification categories were determined according to the free hours that the subjects would be available to participate in group counseling. From each of these groups, ten individuals by identification number were randomly selected to be members of the experimental groups and the other individuals were assigned to the control group. In this manner, six experimental groups having ten members each were formed. The six groups were randomly divided and assigned to the three group-individual counseling treatment and the three group counseling only treatment by flipping a coin. The same method was used to assign groups within each treatment to the counseling teams.

Those students who were unassigned were designated as the control group and were informed they could not participate in counseling during the term of the study because of the large number of responses and the limited staff available. They were provided with booklets[8] to assist them in improving their study skills and all subjects, both experimental and control, were assured of an interview at a later date for the purpose of test interpretation.

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[8]Thomas F. Staton, How to Study (P.O. Box 6133, Montgomery, Alabama, 1968).

Instrumentation

Independent Variable Measure

The Michigan M-Scale used as a selection instrument for this research relates task characteristics, self-concept, adult attitudes, and personality traits to academic motivation.[9] Farquhar, et. al., developed four scales for inclusion in the instrument.[10]

1. The Word Rating List was developed to measure self-concept.
2. The Human Trait Inventory was constructed from items which differentiated between discrepant achievers.
3. The Generalized Situational Choice Inventory was developed to assess academic achievement motivation.
4. The Preferred Job Characteristics Scale was developed to determine high or low occupational motivation.

With regard to the validity and reliability of the M-Scales, Farquhar states:

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[9]William W. Farquhar, "Motivation Factors Related to Academic Achievement," Cooperative Research Project 846, (East Lansing, Michigan: Michigan State University, Office of Research and Publication, 1963).

[10]W.W. Farquhar, D.A. Payne, and M.D. Thorpe, "The Michigan State M-Scales," (U.S. Office of Education, 1961).

> Reliability of the M-Scales. Using a sample of 240, a Hoyt's analysis of variance reliability estimate of .94 for 139 male cross-validated items was obtained. A female sample of 240 yielded a comparable .93 reliability estimate on 136 cross-validated items. For the most part, the reliability estimates for the sub-scales and various defined group of achievers attain a satisfactory level (r = .68 to .92 for males and .60 to .93 for females). Validity of the M-Scales. Based upon a sample of 254 males and 261 females, the validity estimates of the total M-Scales against grades was .56 and .40 respectively. The cross-validation estimates were .49 and .48 for males and females. The correlation (GPA) follows the same pattern with the female correlations lower in magnitude than the males. The range was .27 to .42 for females and .32 to .51 for males.[11]

To estimate the internal consistency of the Michigan M-Scales for this study, a sample of the Hope High School tenth and eleventh grade student scores was analyzed using Cronbach's Reliability Coefficient Alpha.[12] The results are summarized in Table 3.6. Using a sample of 209 male students, a reliability estimate of .92 was obtained for 159 items of the Male Form b-V_2. The female sample of 178 yielded a comparable .93 reliability estimate on 149 items of the Female Form b-V_2. For the most part, the reliability estimates for the sub-scales of the defined sample attain a satisfactory level (r = .70 to .87 for males and .67 to .90 for the females).

The correlation coefficients[13] were obtained to analyze the estimates between each of the M-Scale

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[11] Farquhar.

[12] Special Program for the Social Sciences (SPSS), Version 6.0, available at Michigan State Computer Center.

[13] Ibid.

Table 3.6--Population Reliability Analysis: Cronbach's Alpha (α) Reliability Coefficient for the Michigan M-Scales: tenth and eleventh grade students.

	M-Scale 1		M-Scale 2		M-Scale 3		M-Scale 4		M-Scale Total	
	α	N	α	N	α	N	α	N	α	N
MALES										
No. items examined		45		20		53		41		159
Tenth Grade	.79	(103)	.80	(107)	.88	(75)	.68	(90)	.93	(65)
Eleventh Grade	.75	(85)	.87	(96)	.87	(65)	.71	(77)	.90	(55)
Tenth & Eleventh Grades Combined	.77	(188)	.84	(203)	.87	(140)	.70	(167)	.92	(120)
FEMALES										
No. items examined		27		33		58		31		149
Tenth Grade	.79	(64)	.33	(59)	.87	(47)	.37	(63)	.68	(41)
Eleventh Grade	.43	(98)	.90	(98)	.91	(60)	.63	(90)	.92	(50)
Tenth & Eleventh Grades Combined	.88	(162)	.89	(157)	.89	(107)	.67	(153)	.92	(91)

α - Reliability Coefficient
N - Number of Students

sub-scores and the M-Scale total scores by grades. The summary is given in Table 3.7. The total score coefficient was .71 for tenth grade males and .73 for the females. The combined tenth and eleventh grade male coefficient was .75 and the combined female coefficient was .83. For the most part, the estimates between the sub-scales and the total score attain a satisfactory level. Scale three had a questionable level for the tenth grade females. The female correlations are somewhat lower than the male correlations.

Using a sample of 200 tenth and eleventh grade low-motivated males, the Pearson correlation of the sub-scales with the grade point criterion (GPA) yielded acceptable correlations at the .001 level of significance. The summary is given in the tenth grade total of Table 3.8.[14] M-Scale estimate with GPA was .60, with CTMM .37. The eleventh grade total M-Scale estimate with GPA was .52 and with CTMM .34. The correlation of the tenth grade sub-scales with the GPA was .42 to .54; the eleventh grade GPA correlation with the sub-scales range was .42 to .48. The correlation for the sub-scales with the CTMM does not follow the same pattern with the tenth grade correlations lower in magnitude than the eleventh. The range was .21 to .43 for the tenth and .00 to .44 for the eleventh grade for sub-scales one through four. The tenth

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[14] Ibid.

Table 3.7.--Pearson Correlation Coefficients for the Michigan M-Scales: tenth and eleventh grade males and females.

	TENTH GRADE				
Scales	1	2	3	4	Total
1	--	.65* (101)	.61* (74)	.53* (87)	.84* (64)
2	.31 (56) S=.010	--	.59* (73)	.39* (87)	.76* (64)
3	-.76* (46)	-.14 (44) S=.182	--	.63* (67)	.90* (64)
4	.01 (59) S=.470	.20 (55) S=.067	.35 (45) S=.010	--	.78* (64)
Total	-.21 (41) S=.095	.35 (41) S=.012	.74* (41)	.73* (41)	--

	ELEVENTH GRADE				
Scales	1	2	3	4	Total
1	--	.67* (82)	.54* (61)	.45* (67)	.80* (54)
2	.48* (92)	--	.40* (65)	.40* (73)	.63* (54)
3	.48* (57)	.18 (56) S=.098	--	.40* (56)	.81* (54)
4	.44* (84)	.23 (85)	.57* (54)	--	.75* (54)
Total	.82* (50)	.60* (50)	.85* (50)	.74* (50)	--

	COMBINED TENTH AND ELEVENTH GRADES				
Scales	1	2	3	4	Total
1	--	.66* (183)	.58* (135)	.48* (154)	.83* (118)
2	.74* (148)	--	.47* (138)	.33* (160)	.69* (118)
3	.05 (103) S=.318	.11 (100) S=.129	--	.52* (123)	.86* (118)
4	.64* (143)	.52* (140)	.45* (99)	--	.75* (118)
Total	.75* (91)	.76* (91)	.61* (91)	.83* (91)	--

Note: Intercorrelations above diagonal are male and below the diagonal are female.

*.001 (one-tailed test) level of significance.

SLevel of significance if not .001 (one-tailed test).

()Number of students.

Table 3.8.--Pearson Correlation Coefficients for the Michigan M-Scales with Grade Point Average (GPA) and California Mental Maturity Raw Scores (CTMM): tenth and eleventh grade low motivated males.

	GPA	CTMM	M-Scale 1	M-Scale 2	M-Scale 3	M-Scale 4	M-Scale Total
GPA	--	.56* (92)	.42* (98)	.53* (102)	.54* (102)	.42* (102)	.60* (102)
CTMM	.57* (92)	--	.21 (92) S=.020	.43* (94)	.37* (94)	.19 (94) S=.003	.37* (94)
M-Scale 1	.42* (98)	.22 (92) S=.020	--	.67* (102)	.46* (102)	.46* (102)	.78* (102)
M-Scale 2	.37* (98)	.33* (92)	.57* (98)	--	.52* (102)	.38* (102)	.73* (102)
M-Scale 3	.48* (98)	.44* (92)	.55* (98)	.44* (98)	--	.63* (102)	.87* (102)
M-Scale 4	.30* (98)	.00* (92) S=.487	.52* (98)	.42* (98)	.40* (98)	--	.76* (102)
M-Total Scale	.52* (98)	.34* (92)	.81* (98)	.72* (98)	.83* (98)	.70* (98)	--

COMBINED TENTH AND ELEVENTH

	GPA	CTMM	M-Scale 1	M-Scale 2	M-Scale 3	M-Scale 4	M-Scale Total
GPA	1.00						
CTMM	.46* (186)	1.00					
M-Scale 1	.44* (200)	.25* (186)	1.00				
M-Scale 2	.44* (200)	.35* (186)	.62* (200)	1.00			
M-Scale 3	.51* (200)	.38* (186)	.50* (200)	.48* (200)	1.00		
M-Scale 4	.36* (200)	.11 (186) S=.062	.48* (200)	.39* (200)	.50* (200)	1.00	
M-Total Scale	.56* (200)	.34* (186)	.79* (200)	.72* (200)	.85* (200)	.72* (200)	1.00

Note: Intercorrelations above diagonal are male and below the diagonal are female.

*.001 (one tailed test) level of significance.

S Level significance if not .001 (one tailed test)

() Number of students.

grade correlation range for the total M-Scale score with the four sub-scale scores was .70 to .83; the eleventh grade .73 to .76. The combined tenth and eleventh grade low motivated sample yielded correlations a little greater in magnitude and all estimates significant at the .001 level. The total M-Scale correlation with GPA was .51; with CTMM was .34. The four sub-scales correlation with the total M-Scale range was .75 to .85; with the GPA was .44 to .36; with the CTMM was .11 to .38.

The Michigan M-Scales and the California Mental Maturity Test (CTMM) were administered during the third week of the 1973-1974 school year. The M-Scale total score was used to identify the low-motivated students. CTMM total raw scores were used to determine the homogeneity of the groups for aptitude.

Grade point averages computed from the academic course grades earned prior to the eleventh grade were used to determine the homogeneity of the students in the experimental groups for achievement.

Dependent Variable Measures

Five instruments were used as criteria in this experiment:

(1) Measures of self-concept were obtained by the Minnesota Counseling Inventory (MCI). The MCI was used as one of the measures of self-concept and identified areas in which students were adjusting positively or

negatively. Scores on the Family Relationships (FR), Social Relationships (SR), and Emotional Stability (ES) scales were used. The four scores used of the MCI that provide information more directly related to methods students employ in making adjustments were those of the Conformity (C), Adjustment to Reality (R), Mood (M), and Leadership (L) scales.

The concepts underlying the development of the MCI were based on the needs of the adolescent and the educator in the school setting. More specifically, the purposes of the MCI were:[15]

a. To sensitize teachers and counselors to relevant personality characteristics differentiating students.

b. To identify students in need of therapeutic attention.

c. To assist in understanding students as they attempt to achieve more mature self-understanding and integration between themselves and their environment.

d. To provide a means for determining the effects of educational experiments upon relevant personality characteristics.

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[15]Ralph Berdie and Wilbur Layton, Minnesota Counseling Inventory Manual (New York: Psychological Corporation, 1957).

Two types of reliability data were reported by Berdie and Layton[16] for the scales of the MCI: Coefficients of correlation between scores on odd-even numbered items, corrected by the Spearman-Brown formula; and reliability, as estimated in the test-retest studies done at Austin and North High Schools. For boys, the average reliability coefficient of the Validity (V) scale was .67; for girls it was .64, a lower value than for the other seven scales because of the brevity of the scale (14 items).

(2) Behavior rating--eight selected items from the Haggerty-Olson-Wickman Behavior Rating Schedule (see Appendix F) were evaluated by the students' teachers' observations to obtain measures of behavior change. The continuum range was from poor to acceptable behavior. The scale consists of eight items which are related on a five point descriptive continuum that ranges from poor to acceptable behavior. The authors reported reliability of total scores at .86 for elementary children. Using an abbreviated scale with senior high students, the reliability of a single rating was .92 obtained from the correlation between halves of the scales with a prediction for the total. Analysis of results of the use of the scales reveals a tendency to emphasize behavior of an aggressive type and to miss emotionally disturbed, non-aggressive types.

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[16]Burdie and Layton, pp. 14 and 22.

To estimate the internal consistency of the abbreviated eight item scale, the Ebel[17] formula for reliability was applied to the ratings made for this study because the number of ratings per pupil was uneven and the raters were not identified. A reliability coefficient of .46 was obtained.

Unless the test items are highly homogeneous, the coefficient will be lower than the split-half reliability.[18]

A case can be made for reliability of the above magnitude. When a scale with few items is designed to measure change, a low reliability coefficient would be the proper expectation,[19] provided it is not so low that no consistency exists at all. The obtained coefficient supports this concept.

(3) The Brown-Holtzman Survey of Study Habits and Attitudes (SSHA) was used to assess attitude changes between the experimental and control groups. The SSHA asks subjects to indicate how often they feel as each of the

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[17]R. L. Ebel, "Estimation of the Reliability of Ratings," Psychometrika, 16 (1951), pp. 407-424.

[18]Ann Anastasi, "Test Reliability," Psychological Testing (New York: Macmillan Company, 1961).

[19]R. L. Thorndike and Elizabeth Hagen, Measurement and Evaluation in Education (New York: Wiley and Sons, 1961).

75 items suggest. Brown and Holtzman[20] report the split third reliability of the SSHA for men to be .92. Test-retest with a two week interval produced a reliability coefficient of .95. When grade point averages and SSHA scores were correlated, an average validity coefficient of .42 was computed. On the other hand, correlations between the SSHA and the ACE Psychological examination, a test of scholastic aptitude, were consistently low. Brown and Holtzman felt that a low correlation with measures of scholastic aptitude and an appreciable relationship of academic success made the SSHA a most useful tool to research counseling since it measured non-intellectual factors which significantly influence academic achievement.

(4) The Tennessee Self-Concept Scales and total scores were used as a second measure of self-concept. The scale consists of 100 self descriptive statements on which the subjects rate themselves on a five point scale. Fitts[21] reported that a reliability coefficient of .92 was obtained by test-retest with a two-week interval and that scores of the Scale correlate with MMPI scores in ways that would be expected from the nature of the scores. Sub-scores used to distinguish between the self-concepts

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[20]W.F. Brown and W.H. Holtzman, Brown-Holtzman Survey of Study Habits and Attitudes: Manual (New York: The Psychological Corporation, 1956).

[21]W.H. Fitts, Tennessee Self-Concept Scale: Manual (Nashville: Counselor Recordings and Tests, 1965).

of the experimental and the control groups described by Fitts follow:[22]

Physical Self. The individual is presenting his view of his body, his state of health, his physical appearance, skills, and sexuality.

Moral-Ethical Self. This scale describes the self from a moral-ethical frame of reference--moral worth, relationship to God or lack of it, feelings of being a "good" or "bad" person.

Personal Self. This scale reflects the individual's sense of personal worth and adequacy apart from his body or relationship to others.

Family Self. This scale reflects one's feelings of adequacy, worth, and value as a family member. It refers to the individual's perception of self in reference to his closest circle of associates.

Social Self. This scale is also "self as perceived in relation to others" but in a more general way. It reflects the person's sense of adequacy and social interaction with people in general.

The Self Criticism Score (SC) is composed of ten items, the mildly derogatory statements most people admit as being true for them. High scores indicate normal, healthy openness for self-criticism. Low scores indicate defensiveness.

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[22]Ibid.

The Positive Identity scores are the "what I am" items; the individual describes what he is as he sees himself.

The Positive Satisfaction scores are the "how I accept myself" items; the individual describes how he feels about the self he perceives.

The Positive Behavior scores are the "this is what I do" items; it measures the individual's perception of his own behavior.

The total positive (P) score reflects the overall level of self-esteem.

These scales were used to distinguish the self-concept of the treatment and control groups.

The four dependent measures were administered the week following the 18 experimental group sessions.

(5) Grade Point Average (GPA) on the 4.0 grade scale for the third and fourth marking periods were used to provide an assessment of treatment effectiveness during both the period of the experiment and at the end of the experiment. Only the grades of the academic courses such as English, Mathematics, History and Science were used to compute GPA. Grade point averages were compiled as part of Mezzano's[23] research. GPA for the third and fourth marking periods were calculated and used to provide an assessment of treatment effectiveness during both the

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[23]Joseph Mezzano.

experimental period and again ten weeks following the experiment. There was no significant difference until a time lapse, but the prediction of this study is that the structured treatment will cause GPA improvement between the treatment and control groups in a shorter time due to structured treatment in the counseling sessions.

The Counseling

The approach used in all of the counseling sessions stressed areas concerned with personal problems and personality dynamics thought to be the underlying factors causing low-motivation. The approaches used in all of the counseling sessions were ones in which the counselors provided types of leads and reinforced those responses which were concerned with feelings and experiences about self, school, teachers, parents, future goals, and expressions of anger-hostility. Sessions were structured so group members were led to discuss their experiences and feelings about these topics. The members were reinforced for using their own vernacular.

The counselor often interceded by clarifying, summarizing, and directing when necessary to facilitate group process. Counselors served as models for the members to increase awareness of the ways in which behavior patterns were interrelated.

Replication was an essential element of this design so it was necessary for the two types of group

counseling to be conducted in the same framework by both teams of counselors. To ensure the teams would operate in the same manner, the investigator conducted an intensive workshop for the four counselors in December, prior to the opening of the second semester. Cudney workshop materials, Kagon IPR training tapes, Mager's and Popham's objective writing materials, and systematic behavior counseling materials were employed as the instructional aids.

Each counselor was given a complete packet of materials to study during and after the workshop. Identical materials used with the students at each structured session were distributed at weekly sessions to the four counselors.[25] During these sessions, a review of the tapes and procedures was conducted to ensure the consistency of methodology by the counselors within the experimental groups. The counselors agreed on timing to introduce the recorder and video recall sessions so the procedure would not raise anxiety in any group and to ensure consistency of technique within the groups.

Counseling Setting

All six of the groups met in portable classrooms near the high school. Individuals were not assigned seats. Chairs were available and arranged in a circle facing each other; cushions were scattered in a circle on

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[25]Examples are in Appendix G.

the floor. Counselors often sat on the floor; as did the students. A small portable stand, equipped with the portable video and tape recorder, was in the room for each session; the use of the video was introduced about the mid-point of the sessions. The individual counseling sessions were conducted in the small offices in the same portable buildings.

The equipment (recorder or video) was used for recall purposes in individual sessions in the group-individual treatment and in group sessions in the group only treatment.

The Counselors

All four of the counselors involved in this research held degrees in counseling and guidance. One had his doctorate, three held Master's degrees, and one was working toward her doctorate. Three of the counselors had worked in public schools and had previously participated in limited group and extensive individual counseling. The investigator had experience as a group practicum instructor and extensive group experiences. At the time of the experiment, three of the counselors were members of the staff at Southern State College, Magnolia, Arkansas. The fourth was employed as a counselor in an educational consulting firm working for local public schools.

The Null Hypothesis

The basic research hypotheses of this study were broadly stated previously in Chapter I. A more specific formulation of those hypotheses as they related to the design of the experiment is now stated.

Hypothesis One: One-Way Analysis of Variance of the Minnesota Counseling Inventory

The analysis of variance of the Minnesota Counseling Inventory scores for students of the three treatment groups will be made by a one-way analysis of variance.

> Null Hypothesis One: There are no differences in the Minnesota Counseling Inventory mean scores at completion of the experiment in the group-individual (GI), group experience (G), and the mean scores of students who did not participate in group counseling (C).

$$H_{o_1}: \quad \mu_{GI} = \mu_G = \mu_C$$

> Alternate Hypothesis One: The Minnesota Counseling Inventory mean scores at the completion of the experiment will be lower for the students in the group-individual (GI) than the mean scores for the students in the group (G), which in turn will be lower than the mean scores of those students who did not participate in counseling (C).[26]

$$H_{a_1}: \quad \mu_{GI} < \mu_G < \mu_C$$

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[26] MCI low mean scores indicate change in self-concept in a positive direction.

Hypothesis Two: One Way Analysis of Variance of The Tennessee Self-Concept Scales

The analyses of self-concept scores of the students in the three treatment groups were made by a one-way analysis of variance.

Null Hypothesis Two: There are no differences in self-concept mean scores at the completion of the experiment among the students in the group-individual experience (GI), group experience (G), and the self-concept mean scores of students who did not participate in group counseling (C).

$$H_{o_2}: \quad \mu_{GI} = \mu_G = \mu_C$$

Alternate Hypothesis Two: The self-concept mean scores of the students at the completion of the experiment will be greater for the students in the group-individual experience (GI) than the mean scores of students in the group experience (G), which will be greater than the mean scores of students who did not participate in group counseling (C).

$$H_{a_2}: \quad \mu_{GI} > \mu_G > \mu_C$$

Hypothesis Three: One Way Analysis of Variance of the Survey of Study Habits and Attitudes (SSHA)

The analysis of variance of the Survey of Study Habits and Attitude scores for the students of the three treatment groups was made by a one-way analysis of variance.

Null Hypothesis Three: There are no differences in the mean scores at the completion of the experiment in the group-individual experience (GI), group experience (G), and the mean scores of students who did not participate in group counseling (C).

$$H_{o_3}: \quad \mu_{GI} = \mu_G = \mu_C$$

Alternate Hypothesis Three: The SSHA mean scores of the students at the completion of the experiment will be greater for the students in the group-individual experiences (GI) than the mean scores of students in the group experience (G) which will be greater than the mean scores of students who did not participate in group counseling (C).

$$H_{a_3}: \quad \mu_{GI} > \mu_G > \mu_C$$

Hypothesis Four: One Way Analysis of Variance of The Third Term Grades

The analyses of the third term grade point averages of the students in the three treatment groups were made by a one-way analysis of variance.

Null Hypothesis Four: There are no differences in academic achievement at the end of the third term of the experiment between the students in the group-individual (GI), group experience (G), and the academic achievement of students who did not participate in group counseling (C).

$$H_{o_4}: \quad \mu_{GI} = \mu_G = \mu_C$$

Alternate Hypothesis Four: The academic achievement of the students at the end of the third term of the experiment will be greater for the group-individual experience (GI) than the academic

achievement of the students in the group experience (G) whose academic achievement will be greater than those of the students who did not participate in group counseling (C).

$$H_{a_4}: \quad \mu_{GI} > \mu_G > \mu_C$$

Hypothesis Five: One-Way Analysis of Variance of Fourth Term Grades

The analysis of variance of fourth term grades for the students in the treatment groups was made by a one-way analysis of variance.

Null Hypothesis Five: There are no differences in academic achievement at the completion of the experiment between the students in the group-individual experience (GI), group experience (G), and the academic achievement of students who did not participate in group counseling (C).

$$H_{o_5}: \quad \mu_{GI} = \mu_G = \mu_C$$

Alternate Hypothesis Five: The academic achievement of the students at the completion of the experiment will be greater for the students in the group-individual experience (GI) than the academic achievement for the students in group experience (G), which will be greater than the academic achievement of students who did not participate in group counseling (C).

$$H_{a_5}: \quad \mu_{GI} > \mu_G > \mu_C$$

Hypothesis Six: One-Way Analysis of Variance of the Haggerty-Olson-Wickman Scale

The analysis of variance of the Haggerty-Olson-Wickman Scale scores for the students of the three groups was made by a one-way analysis of variance.

Null Hypothesis Six: There are no differences in the Haggerty-Olson-Wickman mean scores at completion of the experiment in the group-individual (GI), group experience (G), and mean scores of students who did not participate in group counseling (C).

$$H_{o_6}: \quad \mu_{GI} = \mu_G = \mu_C$$

Alternate Hypothesis Six: The Haggerty-Olson-Wickman mean scores at the completion of the experiment will be greater for the students in the group-individual (GI) than the mean scores for the students in the group (G), which in turn will be greater than the mean scores of those students who did not participate in counseling (C).

$$H_{a_6}: \quad \mu_{GI} > \mu_G > \mu_C$$

Statistical Treatment

Raw scores of the California Test of Mental Maturity were averaged for each group and compared by one-way analysis of variance to determine if groups were homogeneous.

One-way analysis of variance of previously earned GPA was used to further determine if groups were homogeneous.

The one-way analysis of variance was the technique used to treat the null hypotheses of this study. The technique differentiated variation among a number of means according to different treatments.[27] The treatment allowed the isolation of the sum of squares associated with each experimental variable and tested the significance statistically.[28]

This study was composed of three independent variables and five dependent variables. The five dependent variables were self-concept, study-habits and attitudes, third term grades, final grades, and behavior observations. The five dependent variables were measured by the MCI, Tennessee Self-Concept, SSHA, third term GPA, final GPA, and the Haggerty-Olson-Wickman Observation Scales rated by teachers.

The data were analyzed using the one-way analysis of variance (ANOVA) because this study was a replication of the Story study and part of the Mezzano study. For comparison purposes, the results of this study were analyzed and reported exactly as the analyses were reported in their investigations.

The data were further analyzed using the Univariate and Multivariate Analysis of Variance, Covariance and

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[27] D.T. Campbell and J.C. Stanley.

[28] Ibid.

Regression.[29] The procedure was not available for Story and Mezzano when the data from their investigations were analyzed. The Multivariate Analysis of Variance (MANOVA)[30] procedures were chosen because of the ability to consider the relationships among the dependent measures. The multivariate significance tests may be regarded as multivariate extensions of analysis of variance[31] as applied to one-way classification designs. A multivariate approach is likely to be more powerful than a univariate analysis since it is possible to obtain significant multivariate differences without obtaining univariate effects. The MANOVA procedure weights the contributions of each dependent variable in such a way as to obtain the most efficient combination of dependent measures. Using MANOVA, it was possible to obtain significance with groups of measures such as the MCI and the Tessessee Self-Concept instruments and not simply with a single measure examined in isolation.

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[29]Jeremy D. Finn's Multivariance Version 4, (June 1968). Modified and adopted for use on the Michigan State University CDC.

[30]Verda M. Scheifley and William H. Schmidt, "Jeremy D. Finn's Multivariate-Univariate and Multivariate Analysis of Variance, Covariance, and Regression, Modified and Adopted for Use on the CDC 6500," Occasional Paper No. 22, Office of Research Consultation, Michigan State University (October 1973), pp. 1-23.

[31]Maurice M. Tatsuoka, Multivariate Analysis: Techniques for Educational and Psychological Research, John Wiley and Sons, Inc., New York (1971), pp. 10-84 and 194-214.

In considering the assumptions required for a univariate analysis, one assumption was that each response occurred independently of every other response. In this study, it would have been questionable to assume the responses to questions on four instruments administered to each subject in one week were independent of each other. The self-concept and behavior measures administered in this study were multi-faceted and it seemed logical to analyze the results by a procedure that had the power to examine the relationships between several dependent measures. In addition, MANOVA is less likely than ANOVA to occasion a Type I error.[32]

The replication of previous studies and the instruments used to measure the outcomes necessitated the choice of a procedure for extended analyses that would guard against the possibility of a false rejection of the null hypotheses.

The assumptions of the MANOVA are: the dependent variables are multivariate, normally distributed, have homogeneous variances, and the errors of measurement are normally distributed across the treatment population.[33]

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[32]T.J. Hummel and J.R. Sligo, "Empirical Comparison of Univariate and Multivariate Analysis of Variance Procedures," Psychological Bulletin, (1971), Vol. 76, pp. 49-57.

[33]Kerlinger and W.W. Cooley and P.R. Lohnes, Multivariate Data Analysis. New York: Wiley and Sons, Inc, (1971).

There were no indications that the assumptions required for the Multivariate Analysis of Variance were not met.

The statistic to be used was F, the ratio of the mean square for the between groups to the mean square for the within groups.

The level of significance for rejecting the null hypotheses was set at the .05 alpha level.

Summary

The experiment was designed to test the differences in the effect of group or group-individual counseling treatment on grade point average, self-concept, and behavior of low-motivated male high school juniors. The length of time was held constant for each counseling session.

The study was unique because it was a replication of the investigation by Story,[34] in which both group and individual counseling were conducted by a team of one male and one female. The treatment was unique because affective and structured methods were combined in the counseling techniques.

One hundred fifteen male students who ranked in the lower half of their junior class on the Michigan M-Scales were randomly selected and invited to participate in a counseling program. One hundred males accepted the

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[34] Story.

invitation to become subjects of the study. Subjects were grouped according to the period of the day when they were in study hall. From each of these groups, ten individuals were randomly selected to be members of the six treatment groups: three group-individual (GI) and three groups (G). The others were assigned to the one control group (C). Three of the groups were randomly assigned to the group-individual counseling treatment while the other three groups were assigned to the group counseling only treatment. Randomizing techniques were also used to assign the pairs of counselors to the various treatment groups. The control group received no counseling. Changes in subjects in the treatment groups were obtained by comparison with the control subjects on four criteria: grade point averages, study habits and attitudes, self-concept, and behavior ratings.

The one-way analysis of variance was used to test the null hypotheses of this study.

With six dependent measures for each subject, the analysis of variance was extended to further examine the data by multivariate significance tests.[35]

The level of significance for accepting or rejecting the null hypotheses was set at the five percent level of confidence.

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[35]Maurice M. Tatsuoka.

Six dependent measures were employed in the study: The Minnesota Counseling Inventory, the Tennessee Self-Concept Scales, the Brown-Holtzman Survey of Study Habits and Attitude, grade point averages at the third and fourth grading periods, and the Haggerty-Olson-Wickman Behavior Rating Scale.

Both multivariate and univariate analyses were performed on the data.[36] The multivariate analyses of variance (MANOVA) were performed for each measure with the probability of a Type I error for hypothesis testing set at the .05 level of significance. The univariate analysis of variance was calculated separately for each dependent measure. An attempt was made to control for the probability of a Type I error for hypothesis testing by using a controlled alpha for each set of univariate analyses. The univariate F tests were considered significant for p as follows:

Probabilities to Reject Univariate H_o
$\alpha = .05$

$\alpha' = .05$	$\alpha' = .05$	$\alpha' = .05$	$\alpha' = .05$	$\alpha' = .05$
$M_1 \cdots M_7$	$M_8 \cdots M_{17}$	M_{18}	M_{19-20}	M_{21}
$\alpha'' = .0071$ 1, 2, 3, 4, 5, 6, 7	$\alpha'' = .0050$ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10	$\alpha'' = .05$ 1	$\alpha'' = .025$ 1, 2	$\alpha'' = .05$ 1

The univariate H_o will be rejected if:

$p < .007$ for the MCI

$p < .005$ for the Tennessee

$p < .05$ for the SSHA and the HOW

$p < .025$ for the GPA

[36] Jeremy D. Finn.

CHAPTER IV

ANALYSIS OF EXPERIMENTAL RESULTS

In Chapter IV, the analyses of the experimental results are reported. Each of the six null hypotheses is tested by an analysis of variance technique. The analysis of variance technique is extended by multivariate significance tests.

The results of the hypotheses are presented in numerical order beginning with hypothesis one.

The hypotheses in this chapter are stated in the direction of anticipated significance. The ANOVA and MANOVA are nondirectional tests. Directionality is established on significant results by means of post-hoc techniques.

Results of the analyses are reported in Tables 4.1 though 4.26.

A total of twenty-seven (27) participants were in the group-individual treatment, twenty-eight (28) participants in the group treatment and thirty-seven (37) participants were in the control group. Scores for each were complete for each variable and included in all analyses. For the purposes of replication and comparison

with the Story[1] and Mezzano[2] studies, the data are reported in the format they used for the one way analysis of variance. The multivariate data are reported in combined tables.

Analysis of Variance of the Sub-Scales of the Minnesota Counseling Inventory

The first hypothesis, which predicted the effects of treatment, was tested by the analysis of variance of the sub-scales of the Minntesota Counseling Inventory (MCI).[3]

Hypothesis One

Hypothesis one is restated in null form.

> There are no differences in the mean scores at completion of the experiment in the group-individual (GI), group experience (G), and mean scores of students who did not participate in group counseling (C).

Symbolically: $H_{o_1}: \mu_{GI} = \mu_G = \mu_C$

Legend: GI = group-individual
G = group
C = control

Alternate Hypothesis: At the completion of the experiment the mean scores on the Minnesota Counseling Inventory of the students in group-individual (GI) will be lower than the mean scores of the students in group experience (G), which in turn will be lower than the mean scores of those students who did not participate in group counseling (G).

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[1] Story, pp. 47-58.

[2] Mezzano, pp. 56-79.

[3] The lower MCI scores are positive.

Symbolically: H_{a_1} : $\mu_{GI} > \mu_G > \mu_C$

Lenged: GI = group-individual
G = group
C = control

The first hypothesis was tested by comparing each of the seven Minnesota Counseling Inventory (MCI) subscale scores of the two treatment groups and the control group, using the one-way analysis of variance technique.

The results of the analyses are presented in Tables 4.1 through 4.8.

Table 4.1.--Analysis of variance of the Family Relationship Scale (FR) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_1.

Means	GI = 16.51		G = 14.82		C = 13.02
Source of Variation	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	192.29	2	96.14	1.98	Not rejected
Within Treatments	4359.82	90	48.44		
Total	4552.12	92			

Necessary: F .05 $\geq$ 3.10 to reject H_o

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 1.98 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in the Family Relationship scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.2.--Analysis of variance of the Social Relationships Scale (SR) for the group individual counseling (GI), group counseling (G), and control groups (C): H_1 .

Means	GI = 25.96		G = 22.96		C = 23.18
Source of Variation	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	157.99	2	78.99	0.82	not rejected
Within Treatments	8581.62	90	95.35		
Total	8739.62				

Necessary: F .05 $\geq$ to reject Ho

The analysis revealed an F value of 0.82 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in Social Relationship scores between students who

participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.3.--Analysis of variance of the Emotional Stability Scale (ES) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_1.

Means	GI = 19.88		G = 19.64		C = 18.86
Source of Variance	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	18.69	2	9.34	0.17	not rejected
Within Treatments	4785.42	90	53.17		
Total	4804.12	92			

Necessary: $F\ .05 \geq 3.10$ to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of confidence.

Inspection of the table reveals an F value of 0.17 which is not significant. The difference in Emotional Stability among the three experimental groups was likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in the sub-scale of Emotional Stability of the students who participate in group counseling and those who did not participate in group counseling was not rejected.

Table 4.4.--Analysis of variance of the Conformity Scale (C) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_1.

Means	GI = 16.96		G = 17.00		C = 14.35
Source of Variation	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	153.06	2	76.53	4.13	rejected
Within Treatments	1667.40	90	18.52		
Total	1820.47	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

A significant F value of 4.13 was revealed by the analysis. Differences as large as this would occur by chance less than five times in one hundred. Therefore, the null hypothesis of no differences on the Conformity Scale among the students in the group-individual counseling, group counseling, and the students who did not participate in group counseling was rejected.

Following the F test for significance, the Scheffé[4] test was used to compare means of the treatment

[4]H. Scheffé, The Analysis of Variance, New York: Wiley and Sons, (1959).

groups. Results of the post hoc test indicated that the mean scores of the control (C) group exceeded those of the experimental groups. The finding was contradictory to the alternate hypothesis which was rejected.

Table 4.5.--Analysis of variance of the Reality Scale (R) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_1.

Means	GI = 23.18		G = 22.53		C = 20.34
Source of Variation	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	144.39	2	72.19	1.17	not rejected
Within Treatments	515.48		61.28		
Total	5659.87				

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 1.17 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in the Reality scores between students who

participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.6.--Analysis of variance of the Mood Scale (M) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_1.

Means	GI = 17.51		G = 14.96		C = 15.00
Source of Variation	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	122.49	2	61.24	2.60	not rejected
Within Treatments	2115.71	90	23.50		
Total	2238.20	92			

Necessary: F .05 $\geq$ to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 2.60 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in the Mood scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.7.--Analysis of variance of the Leadership Scale (L) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_1.

Means	GI = 15.44		G = 13.35		C = 13.73
Source of Variance	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	67.79	2	33.89	1.57	not rejected
Within Treatments	1941.37	90	21.57		
Total	2009.16	92			

Necessary: $F_{.05} \geq 3.10$ to reject H_0

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 1.57 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in the Leadership scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Multivariate and Univariate Analysis for the Minnesota Counseling Inventory

The first hypothesis, which predicted the effects of treatment on self-concept, was further tested by the multivariate (MANOVA) and univariate analysis for the subscales of the Minnesota Counseling Inventory (MCI).[5]

The hypotheses are restated.

> Null Hypothesis One: There are no diffenences in the mean scores at completion of the experiment in the group-individual (GI), group experience (G), and the mean scores of students who did not participate in group counseling (C).
>
> > Alternate Hypothesis: At the completion of the experiment the mean scores on the Minnesota Counseling Inventory of the students in group-individual (GI) will be lower than the mean scores of the students in group experience (G), which in turn will be lower than the mean scores of those students who did not particpate in group counseling (C).

The first hypothesis was tested by comparing each of the seven Minnesota Counseling Inventory (MCI) subscale scores of the two treatment groups and the control group. The results are summarized in Table 4.8.

The multivariate F value for the Minnesota Counseling Inventory (MCI) was 1.159. The F value was not significant at the .05 alpha level.

Univariate analysis would not be reported in most studies when there was no significant difference between the experimental and the control groups as indicated by the multivariate analysis. The univariate results were

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[5]Lower scores for the MCI are positive.

Table 4.8--Univariate and Multivariate Analysis of Variance for the Minnesota Counseling Inventory (MCI) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_1.

Multivariate test of differences between groups

F = 1.159 df = 16.0 and 164.0 p = less than .3063 NSD

Univariate tests for differences between groups

Dependent Measures	Hypothesis MS*	Error MS**	F	p Less Than	
Family Relationship	96.15	48.99	1.96	0.1466	NSD
Social Relationship	82.93	96.38	0.86	0.4265	NSD
Emotional Stability	10.46	53.90	0.19	0.8240	NSD
Conformity	81.33	18.79	4.33	0.0161	NSD
Adjustment to Reality	81.47	62.28	1.31	0.2755	NSD
Mood	71.15	23.46	3.03	0.0532	NSD
Leadership	35.89	21.61	1.66	0.1959	NSD

*df = 2
**df for Error = 89
α = .0071

examined because Story rejected the null hypotheses for the Social Reliability, Reality, Conformity, Mood, Leadership and Behavior Scales when the data were analyzed by ANOVA. The null hypothesis in this study for the Conformity Scale was rejected (Table 4.4) on the basis of the ANOVA results. The univariate analyses were examined for

each of the seven dependent measures: Family Relationship, Social Relationship, Emotional Stability, Conformity, Adjustment to Reality, Mood and Leadership. Each univariate F was tested at the .05/7 alpha level, .0071 with 2 and 89 degrees of freedom. The univariate analyses for hypothesis one are presented in Table 4.8.

Each of the univariate F tests exceeded the controlled alpha level. It was concluded that none of the means of the dependent measures of self-concept for the MCI were significant for the two experimental groups and one control group.

Analysis of Variance of the Tennessee Self-Concept Scores

The second hypothesis, which predicted the effects of treatment, was tested by the analysis of variance of the sub-scales of the Tennessee Self-Concept Inventory.

Hypothesis Two

Hypothesis two is restated in null form:

> There are no differences in the Tennessee Self-Concept mean scores at the completion of the experiment between the students in the group-individual (GI), group experience (G), and the mean scores of students who did not participate in group counseling (C).

Symbolically: $H_{o_2}: \mu_{GI} = \mu_G = \mu_C$

Legend: GI = group-individual
G = group
C = control

Alternate Hypothesis: The Tennessee Self-Concept mean scores of the students at the completion of the experiment will be greater for the students in the group-individual (GI) than the mean scores of students in the group experience (G), which in turn will be greater than the mean scores of students who did not participate in group counseling (C).

Symbolically: $H_{a_2}: \mu_{GI} > \mu_G > \mu_C$

Legend: GI = group-individual
G = group
C = control

Hypothesis two predicted the effects of treatment on self-concept by an analysis of the scores on the Tennessee Self-Concept scale obtained at the end of the treatment. A one-way analysis of variance was computed to determine whether a significant difference in means existed between the experimental groups on the Tennessee Self-Concept. The results of the analyses are summarized in Tables 4.9 through 4.19.

Table 4.9.--Analysis of variance of the Tennessee Identity Scale for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 116.44		G = 112.60		C = 109.70
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	709.13	2	354.56	1.72	not rejected
Within Treatments	18511.50	90	205.68		
Total	19220.64	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 1.72 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in the Identity scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.10.--Analysis of variance for Tennessee Self-Satisfaction Scale for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 92.81		G = 91.35		C = 91.83
Source of Variation	s.s.	df	m.s.	F	Hypothesis Tested is:
Among Treatments	30.16	2	15.08	0.11	not rejected
Within Treatments	11507.87	90	127.86		
Total	11538.03	92			

Necessary: $F_{.05} \geq 3.10$ to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 0.11 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in the Self-Satisfaction scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.11.--Analysis of variance for Tennessee Behavior Scale for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 99.18		G = 99.35		C = 97.08
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	106.55	2	53.27	0.25	not rejected
Within Treatments	19133.50	90	212.59		
Total	19240.06	92			

Necessary: $F_{.05} \geq 3.10$ to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 0.25 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in the Behavior scale scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.12.--Analysis of variance for Tennessee Physical-Self Scale for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 66.81		G = 65.92		C = 64.78
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	65.95	2	32.97	0.57	not rejected
Within Treatments	5154.31	90	57.27		
Total	5220.26				

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 0.57 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in the Physical-Self Scale scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.13.--Analysis of variance for Tennessee Moral-Ethical Self Scale for group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 59.40		G = 57.25		C = 56.81
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	113.53	2	56.76	1.11	not rejected
Within Treatments	4583.56	90	50.92		
Total		92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 1.11 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in the Moral-Ethical Self Scale scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.14.--Analysis of variance for the Tennessee Personal-Self Scale for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 61.25		G = 61.92		C = 60.48
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	33.55	2	16.77	0.24	not rejected
Within Treatments	6052.37	90	67.24		
Total	6085.93	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 0.24 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in the Personal-Self Scale scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.15.--Analysis of variance of the Tennessee Family-Self Scale for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 58.96		G = 59.25		C = 58.64
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	5.72	2	2.86	0.04	not rejected
Within Treatments	5530.75	90	61.45		
Total	5536.47	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

Inspection of the table revealed an F value of 0.04 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in Family-Self Scale scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.16.--Analysis of variance of the Tennessee Social-Self Scale for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Means	GI = 60.62		G = 59.78		C = 58.02
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	114.22	2	57.11	0.68	not rejected
Within Treatments	7546.06	90	83.84		
Total	7660.28	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

Inspection of the table revealed an F value of 0.68 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there were no differences in Social-Self scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.17.--Analysis of variance of Tennessee Self-Concept Total Positive Scores for the group-individual counseling (GI), group counseling (G), and control groups (C). H_2

Means	GI = 308.40		G = 303.42		C = 297.70
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	1816.71	2	908.35	0.99	not rejected
Within Treatments	82340.01	90	914.88		
Total	84156.73	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 0.99 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in the Total Positive Self-Concept scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Table 4.18.--Analysis of variance of the Tennessee Self-Criticism Scales for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2

Means	GI = 34.51		G = 36.17		C = 34.35
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	60.50	2	30.25	1.07	not rejected
Within Treatments	2529.32	90	28.10		
Total	2589.83	92	58.35		

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance.

The analysis revealed an F value of 1.07 which was not significant. The differences among the three experimental groups were likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in the Self-Criticism Scale scores between students who participated in group counseling and those who did not participate in group counseling was not rejected.

Multivariate and Univariate Analysis for the Tennessee Self-Concept

The second hypothesis, which predicted the effects of treatment on self-concept, was further tested by the multivariate and univariate analysis for the sub-scales of the Tennessee Self-Concept Inventory.

The hypotheses are restated.

> Null Hypothesis Two: There are no differences in the Tennessee Self-Concept mean scores at the completion of the experiment among the students in the group-individual (GI), group experience (G), and the mean scores of students who did not participate in group counseling (C).
>
> Alternate Hypothesis: The Tennessee Self-Concept mean scores of the students at the completion of the experiment will be greater for the students in the group-individual (GI) than the mean scores of students in the group experience (G), which in turn will be greater than the mean scores of students who did not participate in group counseling (C).

The second hypothesis was tested by comparing each of the ten Tennessee Self-Concept Sub-scale scores for the treatment and the control groups.

The multivariate F value for the Tennessee Self-Concept Scales was .520. The F value was not significant at the .05 alpha level (Table 4.19). The mean differences for the two experimental groups and the control group on the Tennessee Self-Concept did not indicate differences between the groups as the result of treatment.

Table 4.19.--Univariate and Multivariate Analysis of Variance for the Tennessee Self-Concept Inventory for the group-individual counseling (GI), group counseling (G), and control groups (C): H_2.

Multivariate test of differences between groups

F = .520 df = 6.0 and 174.0 p = Less than .7927 NSD

Univariate tests for differences between group

Dependent Measure Tennessee Self-Concept	Hypothesis MS*	Error MS**	F	p Less Than	
Identity	266.78	200.99	1.33	0.2704	NSD
Self-Satisfaction	14.71	129.36	0.11	0.8927	NSD
Behavior	38.77	216.53	0.18	0.8364	NSD
Physical Self	26.79	58.95	0.45	0.6364	NSD
Moral-Ethical Self	47.23	52.05	0.91	0.4073	NSD
Personal Self	14.26	67.86	0.21	0.8110	NSD
Family Self	0.86	61.82	0.01	0.9862	NSD
Social Self	43.80	83.38	0.53	0.5932	NSD
Tenn. Total	680.52	922.97	0.74	0.4813	NSD
Self-Criticism	27.98	28.02	1.00	0.3726	NSD

*df = 2 **df for Effor = 89 α = .005

Univariate analyses were examined for each of the ten measures: Identity, Self-Satisfaction, Behavior, Physical Self, Moral-Ethical Self, Personal Self, Family Self, Social Self, Total Positive Scale, and Self-Criticism. Each univariate F was tested at the .05/10 level,

.005, with 2 and 89 degrees of freedom. The univariate analysis for hypothesis two are presented in Table 4.19.

Each of the univariate F tests exceeded the controlled alpha level. It was concluded that none of the dependent measures of self-concept for the ten Tennessee scale means were significant for the three groups.

Analysis of Variance of the Brown-Holtzman Survey of Study Habits and Attitudes (SSHA)

Hypothesis three which states the effects of treatment on study habits and attitudes is tested by an analysis of variance of the SSHA scores obtained at the completion of the treatment period.

Hypothesis Three

Hypothesis three is restated in null form:

> There are no differences in the SSHA mean scores at the completion of the experiment in the group-individual experience (GI), group experience (G), and the mean scores of students who did not participate in group counseling (C).

Symbolically: $H_{o_3}: \mu_{GI} = \mu_G = \mu_C$

Legend: GI = group-individual
G = group
C = control

> Alternate Hypothesis Three: The SSHA mean scores of the students at the completion of the experiment will be greater for the students in the group-individual experience (GI) than the mean scores of students in the group experience (G) which will be greater than the mean scores of students who did not participate in group counseling (C).

Symbolically: $H_{a_3}: \mu_{GI} > \mu_G > \mu_C$

Legend: GI = group-individual
G = group
C = control

The procedures followed to test hypothesis three were identical to those used to test hypotheses one and two. A one-way analysis of variance was computed to determine whether or not a significant difference in means existed between the three experimental groups. The results of the analyses are summarized in Tables 4.20 and 4.21.

Table 4.20--Analysis of variance of Brown-Holtzman Survey of Study Habits and Attitudes (SSHA) raw scores for the group-individual counseling (GI), group counseling (G), and control groups (C): H_3.

Means	GI = 22.29		G = 18.96		C = 19.59
Source of Variation	Sum of Squares	df	Mean Squares	F	Hypothesis Tested is:
Between Treatments	174.95	2	87.47	1.43	not rejected
Within Treatments	5485.52	90	60.95		
Total	5660.47	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of confidence.

Inspection of the table reveals an F value of 1.43. The difference in SSHA scores between the students in the three experimental groups was likely to have occurred by chance. Therefore, the null hypothesis three cannot be rejected.

Table 4.21.--Univariate Analysis of Variance for the Brown-Holtzman Survey of Study Habits and Attitudes (SSHA) for the group-individual counseling (GI), group counseling (G), and control groups (C) raw scores: H_3.

Source of Variation	Mean Square Hypothesis	df	Mean Square Error	Univariate F	p less than
Between Treatments	181.38	2	90.69	1.50	.2291 NSD
Within Treatments	5385.39	89	60.51		

$\alpha = .05$

Univariate analyses were examined (Table 4.21) for the dependent measure of the Brown Holtzman Survey of Study Habits and Attitudes (SSHA). The univariate F was tested at the .05/1 alpha level, .05, with 2 and 89 degrees of freedom. The univariate analysis for hypothesis three is presented in Table 4.21. The F test exceeded the controlled alpha level; it was concluded that the dependent measure of differences between the means for the three experimental groups was not significant.

Analysis of Variance of Third Term Grade Point Average

The fourth hypothesis, which predicted the effects of treatment at the end of the experiment, was tested by analysis of variance for the third term grade point average (GPA).

Hypothesis Four

Hypothesis four is restated in null form:

> There are no differences in the academic achievement as measured by the third term GPA at the completion of the experiment among the students in the group-individual experience (GI), group experience (G), and the academic achievement of students who did not participate in group counseling (C).

Symbolically: $H_{o_4}: \mu_{GI} = \mu_G = \mu_C$

Legend: GI = group-individual
G = group
C = control

Alternate Hypothesis Four: The academic achievement of the students at the end of the third term of the experiment will be greater for the group-individual experience (GI) than the academic achievement of the students in the group experience (G) whose academic achievement will be greater than those of the students who did not participate in group counseling (C).

Symbolically: $H_{a_4}: \mu_{GI} > \mu_G > \mu_C$

Legend: GI = group-individual
G = group
C = control

The fourth hypothesis was tested by comparing third term grade point average means of the treatment group and the control no-treatment group.

The results of the analysis are summarized in Table 4.22 and 4.24.

Table 4.22.--Analysis of variance of third term grade point averages for the group-individual counseling (GI), group counseling (G), and control groups (C): H_4.

Means	GI = 1.73		G = 1.92		C = 2.00
Source of Variation	Sum of Squares	df	Mean Squares	F	Hypothesis Tested is:
Between Treatments	1.11	2	0.55	1.59	not rejected
Within Treatments	31.51	90	0.35		
Total	32.62	92			

Necessary: $F_{.05} \geq 3.10$ to reject Ho

An F value of 3.19 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of confidence.

Inspection of the table revealed an F value of 1.59 which is not significant. The difference in the third term grade point averages between the three experimental groups was likely to have occurred by chance. Therefore, the null hypothesis that there were no

differences in academic achievement between the students who participated in group counseling and the students who did not participate in group counseling was not rejected.

Analysis of Variance of Fourth Term Grade Point Averages

Hypothesis five which predicted the effects of treatment at the end of the experiment was tested by an analysis of variance of the fourth term grade point averages (GPA).

Hypothesis Five

Hypothesis five is restated in null form:

> There is no difference in academic achievement at the completion of the experiment between the students in the group-individual experience (GI), group experience (G), and the academic achievement of students who did not participate in group counseling (C).

Symbolically: $H_{o_5}: \mu_{GI} = \mu_G = \mu_C$

Legend: GI = group-individual
G = group
C = control

> Alternate Hypothesis Five: The academic achievement of the students at the completion of the experiment will be greater for the students in the group-individual experience (GI) than the academic achievement for the students in group experience (G), which will be greater than the academic achievement of students who did not participate in group counseling (C).

Symbolically: $H_{a_5}: \mu_{GI} > \mu_G > \mu_C$

Legend: GI = group-individual
G = group
C = control

The second hypothesis was tested by comparing the fourth term grade point average means of the two treatment groups and the no-treatment control group. The results of the analyses are summarized in Tables 4.23 and 4.24.

Table 4.23.--Analysis of variance of fourth term grade point averages for the three experimental groups: H_5.

Means	GI = 1.90		G = 1.78		C = 1.72
Source of Variation	Sum of Squares	df	Mean Square	F	Hypothesis Tested is:
Between Treatments	0.50	2	0.25	0.72	not rejected
Within Treatments	31.19	90	0.34		
Total	31.69				

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences between groups can be concluded at the .05 level of confidence.

Inspection of the table reveals an F value of 0.72 is not significant at the .05 level. The hypothesis that there was no difference in academic achievement at the completion of the experiment among the students in

the group-individual (GI) experience, group (G) experience, and the students who did not participate in group counseling (C) was not rejected. Differences in the fourth term grade point averages were likely to have occurred by chance and the null hypothesis was not rejected.

Table 4.24.--Univariate and Multivariate Analysis of Variance for the third term grade point averages and for the final grade point averages (GPA) for the group-individual counseling (GI), group counseling (G), and control groups (C): H_4 and H_5.

Multivariate test of difference between groups

F = 2.266 df = 4.0 and 176.0 p = less than .0640 NSD

Univariate tests for differences between groups

Dependent Measures	Hypothesis MS*	Error MS**	F	p less than	
Third Term GPA	.5590	.3541	1.58	0.2120	NSD
Final GPA	.2511	.3505	0.72	0.4914	NSD

*df = 2

**df for Error = 89

α = .025

The multivariate F value for the third term grade point averages and for the final grade point averages was 2.266. This value was not significant at the .05 alpha level (Table 4.24). It was concluded that the dependent measures for difference between the three groups were not significant.

Univariate analyses were examined (Table 4.24) for the dependent measure of third term grade point average and for the final grade point average. The univariate F was tested at the .05/2 alpha level, .025, with 2 and 89 degrees of freedom. The univariate analyses for hypotheses three and four are presented in Table 4.24. The F tests exceeded the controlled alpha level. It was concluded that the dependent measures of differences between the three experimental groups were not significant.

Analysis of Variance of the Haggerty-Olson-Wickman Scores

Hypothesis six was tested by an analysis of variance of the scores on the Haggerty-Olson-Wickman Behavior Rating Scale.

Hypothesis Six

Hypothesis six is restated in null form:

> There are no differences in the Haggerty-Olson-Wickman Behavior Rating mean scores at completion of the experiment in the group-individual (GI), group experience (G), and mean scores of students who did not participate in counseling (C).

Symbolically: $H_{o_6}: \mu_{GI} = \mu_G = \mu_C$

Legend: GI = group-individual
G = group
C = control

Alternate Hypothesis: At the completion of the experiment the mean scores on the Haggerty-Olson-Wickman Behavior Rating Scale of students in group-individual (GI) will be greater than the mean scores of students in the group experience

(G) which in turn will be greater than the mean scores of students who did not participate in group counseling (C).

Symbolically: $H_{a_6}: \mu_{GI} > \mu_G > \mu_C$

Legend: GI = group-individual
G = group
C = control

Hypothesis six predicted the effects of treatment on behavior observed by the teachers. The observation was given at the end of the treatment using the Haggerty-Olson-Wickman Behavior scale. A one way analysis of variance was computed to determine whether a significant difference in means existed between the experimental groups on the scales. The results of the analysis are summarized in Tables 4.25 and 4.26.

Table 4.25.--Analysis of variance of the Haggerty-Olson-Wickman Behavior Rating scores of the group-individual counseling (GI), group counseling (G), and control groups (C): H_6.

Means	GI = 12.89		G = 14.32		C = 13.65
Source of Variation	s.s	df	m.s.	F	Hypothesis Tested is:
Among Treatments	28.36	2	14.18	0.57	not rejected
Within Treatments	2234.94	90	24.83		
Total	2263.30	92			

Necessary: F .05 $\geq$ 3.10 to reject Ho

An F value of 3.10 is necessary for 2,90 degrees of freedom before significant differences among groups can be concluded at the .05 level of significance.

Inspection of the table reveals an F value of 0.57 which is not significant. The difference in the Haggerty-Olson-Wickman Behavior Rating scores between the three experimental groups was likely to have occurred by chance. Therefore, the null hypothesis that there was no difference in teacher observed behavior of the students in the different groups cannot be rejected.

Table 4.26.--Univariate Analysis of Variance for the Haggerty-Olson-Wickman (HOW) Behavior Rating Scale for the group-individual counseling (GI), group counseling (G), and control groups (C) scores: H_6.

Source of Variation	Mean Square Hypothesis	df	Mean Square Error	Univariate F	p less than	
Between Cells	28.86	2	14.43	0.5837	0.50	NSD
Within Cells	2200.08	89	24.72			

$\alpha = .05$

Univariate analysis was examined for the dependent measure of the Haggerty-Olson-Wickman Behavior Rating Scale. The univariate F was tested at the .05/1 alpha level, .05, with 2 and 89 degrees of freedom (Table 4.26).

The F test exceeded the controlled alpha level. It was concluded that there was no significant difference in the three groups as indicated by this dependent measure.

The means of the three groups for the six hypotheses in this study are summarized in Table 5.1, Chapter V.

There were no significant statistical differences between the three treatment groups; however, the direction of the mean differences was consistent with the directional changes that occurred in the Story and Mezzano studies. A comparison of the data will be included in Chapter V.

Research Conclusions from Studies Being Replicated

The major conclusions from the replicated research are briefly summarized.

Mezzano's[6] findings indicated there were no significant differences in self-concept between the defined underachievers in the group plus individual (GI) counseling, the group (G) counseling, or the control (C) groups at the completion of the experiment as measured by the Tennessee Self-Concept total positive scale.

No significant differences in the GI, G, or C group means on study habits, as measured by the Brown-Holtzman Survey of Study Habits, were reported.

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[6]Mezzano, pp. 56-79.

During the treatment period and ten weeks following the experiment, Mezzano examined the grade point averages of the three experimental groups. During the treatment period, his research findings indicated there were no differences in academic improvement during the treatment. However, ten weeks after the experiment, the grade point averages of the students who had received G counseling treatment were higher than the grade point averages of the students who had received GI counseling, and the grade point averages of students who had received GI counseling were higher than the grade point averages of the C group. The direction was opposite what the hypothesis had predicted. Inspection of the means revealed a peculiarity; the grade point averages from the first term through the fourth term for the two counseled groups revealed continued improvement. The reported grade point averages for the control group indicated a continuous decline in grades during the same grading periods.

The conclusions from the companion research of Story[7] are significant. The Minnesota Counseling Inventory seven sub-scales were the dependent measures used to analyze the difference in the means between the group plus individual (GI) counseling treatment, the group (G) only counseling treatment, and the control (C) group. Results

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[7]Story, pp. 47-58.

were significant for five scales: Emotional Stability (ES), Social Relationships (SR), Reality (R), Mood (M), and Leadership (L). The remaining two sub-scales, Family Relationships (FR) and Conformity (C), did not yield significant findings.

Inspection of the means revealed that the mean of the group (G) treatment exceeded the means of the group plus individual treatment on four of the five sub-scales (Emotional Stability, Social Relationships, Mood and Leadership). The finding was in the opposite direction from what Story had predicted. The sub-scale, Reality, indicated that the GI group was significantly changed from the G group or the C group, as had been predicted, because of the group-individual treatment.

Story's post hoc analyses of means of the four significant sub-scales of Emotional Stability, Social Relationships, Mood and Leadership indicated that subjects who had experienced the group counseling treatment had lower means on the sub-scales than had the students who had participated in group plus individual counseling. The GI mean scores were lower than the mean scores of the control group. The difference between the counseled groups was significant, but in the opposite direction from Story's prediction.

The Haggerty-Olson-Wickman Behavior Rating Scale was the dependent measure used to analyze observed

behavior change between the counseled groups. Story found a significant positive change for the group plus individual counseling treatment. Students who had received group plus individual counseling had significantly higher ratings than had the students who had received group counseling; their ratings in turn were higher than were the control group's rating.

Summary

The analysis of variance technique and the multivariate technique were used to test the six null hypotheses stated in Chapter III.

The first hypothesis tested each of the seven sub-scales of the Minnesota Counseling Inventory. Results were significant for one sub-scale, Conformity, and the null hypothesis was rejected. The mean of the control group exceeded the means of the treatment groups. The outcome was not in accord with the alternate hypothesis; therefore, the hypothesis could not be accepted. Further analysis with the multivariate technique did not support significance for the Conformity Scale; the finding could have occurred as the result of a Type I error. Analyses of the remaining sub-scales (Family Relationship, Social Relationships, Emotional Stability, Reality, Mood and Leadership) did not yield significant findings.

Null hypothesis two, designed to further evaluate the differences between the groups on nine Tennessee

Self-Concept sub-scales and the total positive scale, did not yield significant findings.

Analysis of the third hypothesis, designed to measure change among the three groups on the Brown-Holtzman Survey of Study Habits and Attitudes, did not yield significant findings.

The fourth and fifth null hypotheses were not rejected. The grade point averages of the three groups at the third and fourth grading periods were not statistically different.

The null of hypothesis six, designed to evaluate the differences among the groups on the Haggerty-Olson-Wickman Behavior Rating scale was not rejected.

Statistically, there were no differences in the group-individual treatment (GI), the group treatment (G), or the control group (C) for any of the six hypotheses in this study.

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

Summary

A summary of the investigations and the conclusions of the data analysis are presented in Chapter V. The limitations of the study are included in the discussion section; implications for future research are included with the recommendations.

The focus of the study was on the relative effects of two types of counseling treatments on the self-concept, the study habits and attitudes, academic achievement, and change in observed classroom behavior of low-motivated male high school students.

The basic hypotheses of the study were:

1. The self-concept scores of low-motivated students who received group counseling in conjunction with individual counseling would be greater at the completion of the experiment than the self-concept scores of low-motivated students who had group counseling. The self-concept scores of the students who had received group counseling would be greater than the self-concept scores of low-motivated students who had no counseling.

2. The study habits and attitude scores of low-motivated students who received group counseling in conjunction with individual counseling would be greater at

the completion of the experiment than the study habits and attitude scores of low-motivated students who had group counseling. The scores of the students who had group counseling would be greater than the study habit and attitude scores of low-motivated students who had no counseling.

3. The academic achievement of low-motivated students who received group counseling in conjunction with individual counseling would be greater at the third grade period during the experiment and at the fourth grade period at the completion of the experiment than scores of low-motivated students who had group counseling. The academic achievement of the students in group counseling would be greater than that of low-motivated students who received no counseling.

4. The teacher observed behavior rating scores of low-motivated students who received group counseling in conjunction with individual counseling would be greater at the completion of the experiment than scores of low-motivated students who had group counseling. Teacher behavior ratings would be greater for the students in group counseling only than would be teacher behavior ratings of low-motivated students who received no counseling.

Eighteen group sessions were conducted jointly by a counseling team made up of one male and one female counselor. The counselors were active participants in the group discussions. Combined affective and structured techniques were used by the counselors in each session.

One hundred and fifteen male students who ranked in the lower half of their junior class on the Michigan M-Scales were invited to participate in the counseling program. The 100 students who accepted became the subjects of this study.

The 100 subjects were first grouped according to the period of the school day when they would be free to participate in group counseling. From each category ten

individuals with free hours in common were randomly selected. In this manner, six experimental groups having ten members each were formed. Three of those groups were randomly assigned to the group-individual counseling treatment, while the other three were assigned to the group counseling only treatment. Randomizing techniques were used to assign the pair of counselors to the various treatment groups. The 40 students not selected by the random procedures were designated as the control group and received no treatment.

Change in counseled subjects was measured by comparing them to the control subjects on five criteria: self-concept, study habits and attitudes, grade point average, and behavior ratings.

To be included in the analysis of the study a minimum of 16 sessions for the group counseling treatment or eight sessions for the group-individual treatment was required. Individual sessions were on a flexible schedule and attendance was not a problem. Twenty-seven in the group-individual treatment and 28 in the group treatment of the original 30 in each of the treatment groups (55 of the original 60) met the requirement for post-treatment analyses. Thirty-seven of the original 40 subjects in the control group completed both the pre- and post-test measures. Proportionately, the attrition rate was evenly distributed between the treatment and the control groups.

Data for the six null hypotheses were analyzed, using the one way analysis of variance (ANOVA), because this study was a replication of Story's[1] research and part of Mezzano's[2] study. For comparison purposes, the data were analyzed and reported exactly as the analyses were reported in their investigations. The F statistic was used to test for significance at the .05 level.

The data analyses were extended using univariate and multivariate (MANOVA) procedures. The multivariate procedure was not available at the time of the Story-Mezzano investigation. The MANOVA significance tests were chosen as an extension of the analyses in this study to test the main effect and interaction hypotheses related to the dependent measures. The additional analyses were performed to guard against the possibility of a false rejection of the null hypotheses. The level of significance for rejecting the null hypothesis was set at the .05 alpha level.

Three major findings emerged from the study:

1. The Conformity Scale scores from the Minnesota Counseling Inventory (MCI) indicated a significant difference between treatment groups, but not in the direction predicted. The other six scales did not yeild significant results.

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[1] Story.

[2] Mezzano.

2. The grade point average changes were not significantly different between treatment groups. However, the mean GPA of the counseled groups increased each grading period. The mean GPA of the control group decreased.

No significant differences were found to exist between the means of the treatment groups for the other three dependent measures: the Tennessee Self-Concept Scales, the Brown-Holtzman Survey of Study Habits and the Haggerty-Olson-Wickman Behavior Scale.

3. The counselor time of one hour per session for group counseling appeared to be effective with or without the addition of individual counseling.

The statistical evidence did not indicate that students who received group plus individual (GI) counseling developed a more positive self-concept, achieved improved social relationships, acquired a greater degree of emotional stability, or earned more acceptance from peers and teachers than those students who experienced group (G) counseling only.

Exploratory Analysis of the Data

The means of the three groups for the six hypotheses are summarized in Table 5.1. The direction of the mean differences were inspected because this study was a replication of the Story-Mezzano investigation.

Table 5.1.--Summary of Means and Standard Deviations from Univariate and Multivariate Analyses of Variance for the group-individual counseling (GI), group counseling (G), and control group (C).

Dependent Measure	GI (27) $\bar{X}$	GI (27) s.d.	G (28) $\bar{X}$	G (28) s.d.	C (37) $\bar{X}$	C (37) s.d.
Minnesota Counseling Inventory						
Family Relationship	16.52	7.11	14.82	6.40	13.02	7.34
Social Relationship	25.96	9.61	22.96	8.52	23.05	10.82
Emotional Stability	29.89	6.25	19.64	7.44	18.81	7.97
Conformity	16.96	4.37	17.00	4.28	14.27	4.35
Reality	23.19	7.20	22.54	8.08	20.19	8.21
Mood	17.52	4.40	14.96	4.48	14.68	5.38
Leadership	15.44	4.59	13.36	4.48	13.65	5.39
Tennessee Self-Concept						
Identity	116.44	12.40	112.61	16.76	110.62	13.23
Self-Satisfaction	92.81	10.89	91.36	11.66	91.97	11.49
Behavior	99.19	10.04	99.36	11.25	97.41	19.17
Physical-Self	66.81	7.43	65.93	8.67	64.97	7.04
Moral-Ethical Self	59.41	7.17	57.25	7.21	57.14	7.25
Personal Self	61.26	7.86	61.93	8.55	60.59	8.27
Family Self	58.96	6.71	59.25	8.81	58.95	7.88
Social Self	60.63	8.30	59.79	9.59	58.32	9.35
Total Positive	308.41	26.46	303.43	33.56	299.08	30.52
Self-Criticism	35.52	3.87	36.20	4.96	34.46	6.33
Brown-Holtzman Survey of Study Habits and Attitudes	22.30	8.35	18.99	8.40	19.46	6.80
Grade Point Average						
Nine Weeks	1.74	.48	1.92	.65	2.00	.62
Final	1.90	.55	1.79	.53	1.72	.66
Haggerty-Olson-Wickman Behavior Rating Scale	12.89	5.35	14.33	4.64	13.78	4.93

$\bar{X}$ Observed cell means.

s.d. Observed cell standard deviation.

() Number in group.

The Story[3] study indicated significant outcomes for four of the MCI scales used as criteria measures for

[3] Story.

self-concept change, but the means were in the direction opposite her prediction.

In this study, the mean scores for six of the Minnesota Counseling Inventory sub-scales (Family Relationship, Social Relationship, Emotional Stability, Reality, Mood and Leadership), for the group counseling (G) treatment exceeded the group-indivudal (GI) counseling treatment. The finding was in the opposite direction predicted for this study. The mean of one sub-scale (Conformity) for the GI treatment exceeded the group treatment in the direction predicted. The means of the group counseling treatment exceeded the control gorup means on five sub-scales (Family Relationship, Emotional Stability, Conformity, Reality, and Mood). Two sub-scale means (Social Relationship, Leadership) for the group treatment exceeded the control group means in the predicted directions. However, two observations do not constitute a trend and thus should be viewed as exploratory evidence for future research.

Again, from the data of this study, the univariate means for the Tennessee Self-Concept measure were examined. As predicted, the means for the GI group treatment exceeded the G treatment of the control group means for the following scales: Identity, Self-Satisfaction, Physical-Self, Moral-Ethical Self, Social Self, the Total Positive Scale, and Self-Criticism. The group treatment means exceeded the control group means for nine of the ten

dependent measures in the Tennessee Self-Concept Scale; the group mean was less than the control group mean on the Self-Satisfaction Scale, but it was the predicted direction of hypothesis two. The group treatment mean exceeded the group-individual mean on the following scales: Behavior, Personal Self and Family Self. The outcome was opposite the one predicted; however, the direction was the same as the direction of the means in Mezzano's report.[4]

The means from the Brown-Holtzman Survey of Study Habits and Attitudes were in the predicted direction for the GI and G treatments. However, the control group mean exceeded the group treatment mean; the opposite of the prediction for hypothesis three.

Inspection of the means of the reported grade point averages for the three groups of this study revealed the same phenomenon that occurred in the Mezzano study.[5] The means of the grade point averages for the group plus indivudal treatment groups increased while the control group grade point average mean decreased.

The Behavior Rating Scale mean was the highest for the group treatment, the opposite of the prediction for the difference in means in relation to the group-individual treatments. Story's[6] analyses for the

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[4]Mezzano.

[5]Ibid.

[6]Story.

observed behavior measure were significant and the direction of the means were as predicted in that investigation.

The outcomes from this study and from the Story-Mezzano investigation raise some serious questions about the impact of the treatment on some of the variables. It may be that the measures were not sufficiently valid to register the changes which did occur, or it may be that no changes did, in fact, occur. Furthermore, the directionality of the research hypotheses is suspect. It would appear that group plus individual is not better than group alone, and this theory should be so hypothesized in future research.

Observed Outcomes

The students involved in the study did not become cohesive group participants until the last three weeks of the study. The four counselors reported that in each group, regardless of treatment, the students' attitudes had changed from distrust toward each other and hostility toward the team counselors to trust and warm feelings. The students began talking with ease about their feelings within the groups by the end of the experiment. A mutual trust and respect for each group member became obvious and the counselors were accepted as friends and group participants. The students were disappointed that the study was completed; they formally asked the school

administration to continue the same type of counseling the next year. Eight of the participants sought individual counseling on a regular basis at the end of the study.

The school administrators had been skeptical of group counseling. The principal cooperated with the research, but would not allow any of the regular counselors to participate in the study as co-leaders. The summer following the study, the school district sent one counselor to a summer institute to gain group experience. In the fall of the 1974-1975 school year, the school district implemented group counseling in both the elementary and the secondary guidance programs. The school district retained one of the college counselors as a consultant for group work with the students. A group experience was also conducted for the teachers by the district.

The counselors participating in the study agreed that the use of co-leaders was a rewarding experience because the sessions were less strenuous, more comfortable, and more insightful than had been individual sessions they had previously counseled alone. One college counselor went to Harvard the summer following the study and participated in an intensive group experience. Group techniques were implemented in his college counseling center the fall of 1974-75.

Teachers commented that behavior changes occurred both in attendance and in grades for the "trouble-makers."

However, their written reports, the teachers reported, followed the old behavior patterns they had expected from the students.

The observed outcomes of the study indicated that group counseling, using team counselors, caused behavior change in students, counselors, and administrators. Group procedures were adopted as permanent techniques to be used in three public programs and one college program.

Conclusions

No statistical evidence was found to support the hypotheses that either treatment was superior to the other or to the control group.

Four factors could have contributed to the lack of statistical significance.

1. The team counselors had limited experience as group leaders; three of the four were excellent with individuals but they had not experienced group counseling as participants or as leaders. The in-service training period of one week was too short and too intensive. The following co-facilitating problems[7] that might affect group processes were all exhibited by the teams:

   (a) The short-term training had raised the leaders' anxiety and the students were aware of the counselors' apprehension.

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[7]Jones and Pfeiffer, pp. 220-221.

(b) The individuals had different theoretical and technical orientations. As team counselors, they were aware of the differences and afraid they would work at cross purposes.

(c) The extra energy demanded by group leadership made it difficult for them to give as much attention to the students as they could have given in individual work. They concentrated too much energy outside the sessions on professional development and the relationship with their co-leader. The students', not knowing how to interpret the counselors' tensions, may have created an emotional distance between the team counselors and the student participants during the first half of the experiment.

(d) Unconsciously, at first, the leaders became competitive with each other. They denied concern for popularity. However, they were very threatened by the students' reactions to them. The researcher's critique of the weekly sessions made them anxious and they reacted as if they were in a practicum course.

(e) The team counselors tried to overtrain the treatment groups. Two counselors, at once, often attempted to interpret and facilitate one participant.

(f) The leaders occasionally had mutual blind spots in observing inter- and intra-individual dynamics and reinforced each other's failure to attend to particular areas.

(g) One counselor or the other was often too slow in reacting to the students in the hope that a participant would take the responsibility for maintenance of the group.

(h) The teams became good models. They did not distrust each other and constantly worked to understand each other. The students followed their example. By the last half of the experiment, the co-leaders were excellent models.

The disadvantages were obviated after about nine weeks. In the weekly counselor sessions, designed to maintain treatment consistency, the co-leaders solicited honest feedback from each other. They became cohesive, dynamic group leaders approximately five weeks before the participants become cohesive groups.

2. Mezzano and Story were correct in recommending more time than 18 weeks for treatment.

(a) The 18 weeks ended just as students appeared to begin internalizing behavior changes.

(b) One hour periods were too short for video recall sessions.

(c) Participants had no perceptions of the purpose for group counseling. They accepted the invitation to participate to "get out" of study hall and to be noticed by someone, even for negative reasons.

3. All standardized measures were administered in one week to the total student body. Too many measures were administered in too short a time span. The students became tired and many of them marked responses at random.

4. The faculty was not aware either of the nature of the experiment or of the students involved in the group sessions. The question of contamination of the results by a possible halo effect may have been a limiting factor in the experiment.

Recommendations

The effectiveness of group counseling with team counselors should be further tested to establish the effectiveness of the technique in changing attitudes and behavior and in improving academic achievement of low-motivated high school students.

To correct the factors that could have contaminated the findings in this study the following changes should be made in future investigations.

1. The team counselors should be trained for one full semester prior to the experiment. The counselors need time to internalize their own reactions to group

interactions; as part of the training they should be involved in group counseling as participants with colleagues. To develop behavioral perceptions, the counselors should experience honest, straightforward reactions.

2. Eighteen weeks, one session per week was not sufficient. However, schedule and personnel changes in the public schools make longer time durations impractical. There should be two sessions per week instead of one; one group session and one IPR session.

3. Video training for the students should be introduced when the invitation to participate is extended. Modeling and written materials explaining group procedures would balance counselor and student expectations and facilitate the group process.

4. Behavioral measures in addition to teacher observations for outcomes should be included in the design. The measures should focus on individual change within and outside the group. The standardized measures included should be fewer and the instruments should be administered to small groups of students.

5. Students to be involved in group experiments should be identified in the spring prior to group involvement in the fall. The sessions should start in September because the holidays that occur in the first semester would allow students time to internalize new behavior patterns.

6. Teachers should be included in the investigation by the counselors meeting with them and sharing materials that might help teachers cope with "problem students."

7. Follow-up evaluations should be planned as part of the design, staged at three months and six months following the treatment period, to evaluate whether or not changes in self-concept and grades were sustained.

The use of group counseling in this study was based upon the theory that low-motivated students require a comprehensive approach. The low-motivated students need the benefits of peer and adult support for longer periods of time. Low-motivated students block and fail to develop solutions to their academic and emotional problems.

The fact that group counseling seemed effective with or without individual counseling may be part of the low-motivated individual's personality dynamics. The effects of peer support, reassurance, and understanding seem to have been internalized more readily than the support from the counselors.

The experimental subjects tended to perceive themselves as isolates at home and at school. They maintained the "bad guy" behavior, minor classroom disturbances, unexcused absences, irritability, and impulsiveness, thus perpetuating isolation and self-defeating behavior.

As group counseling progressed, the students appeared to gain self-confidence and to alter self-concept which, in turn, enabled them to begin giving up some asocial behaviors. Apparently, the students' understanding of this progress was reflected by their responses to the MCI Conformity Scale. They answered the items as adults would expect them to behave. The students had recognized some of their self-defeating behavior patterns. New patterns of behavior had been cautiously tested in the group sessions. However, the new patterns of behavior had neither been tested in reality nor internalized by the students as a real part of themselves by the end of the experiment.

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APPENDICES

APPENDIX A

SPECIAL BIBLIOGRAPHY FOR CHAPTER II

APPENDIX A

SPECIAL BIBLIOGRAPHY FOR CHAPTER II

Elementary School
Grades 1-6

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APPENDIX B

REPORT OF BASIC PUBLIC SCHOOL CHARACTERISTICS OF ARKANSAS

APPENDIX B

Report of Basic Public School Characteristics of Arkansas

The report of basic public school characteristics was included in this study for the purpose of describing the typical school in Arkansas. The information included in pages 193 - 198 was summarized and lifted from the Arkansas Fiscal Year Report, 1975.[1]

Arkansas is located in the south central part of the United States and consists geographically of a plains area in the south and east and a mountain area in the north and west. Elevation ranges from 2,823 feet to 55 feet with an approximate mean altitude of 650 feet. Within Arkansas' 53,104 square miles are 605 square miles of water. There are also two national parks, three national forests, and 17 state parks.

According to the 1970 U.S. Census, Arkansas had increased in population to 1,923,295. Approximately 22 percent of the population is black. The major cities are Little Rock, North Little Rock, Fort Smith, Pine Bluff, and Hot Springs.

The public school population is 447,593 located in 385 districts. There are 106 private schools with 13,535 population. Sixteen colleges and universities or branches of universities are located in the state. Median number of school years completed by residents 25 years of age and older is 10.5 years according to the 1970 census.

The mainstay in Arkansas economy is cotton farming, but other agricultural crops and industrialization are increasing. In 1955 the Arkansas Industrial Development Commission was established and helped attract a large number of new industries to the state. Unemployment is high, and per capita income is still the second lowert in the

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[1]C.E. Morris (Coordinator), Arkansas Department of Education 1975 Evaluation Report, Title I, ESEA, Little Rock, Arkansas, January 1975, pp. 1-28.

United States in spite of the great increases made in the past decades.

The Department of Education is a major agency of state government. The chief state school officer holds the title of Director, is selected by the State Board of Education [subject to confirmation by the Governor] and serves at the pleasure of the Governor.

Tables B-1 through B-4 contain information concerning the total number of Arkansas Local Education Agencies (LEA) and their enrollments.

Table B.1--The distribution of students in the Arkansas public schools by grade level and by race.

Grade Level	White		Black		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pre K	109	43.10	101	51.90	0	0.00	210	100.00
K	13,489	76.82	3,979	22.66	91	.52	17,559	100.00
1	25,865	75.06	8,439	24.49	155	.45	34,459	100.00
2	25,100	75.04	8,184	24.47	163	.49	33,447	100.00
3	25,555	75.13	8,317	24.45	143	.42	34,015	100.00
4	27,423	75.41	8,787	24.17	153	.42	36,363	100.00
5	30,021	77.05	8,790	22.56	151	.39	38,962	100.00
6	30,183	76.88	8,925	22.73	152	.39	39,260	100.00
7	31,350	76.77	9,312	22.80	174	.43	40,836	100.00
8	30,137	76.55	9,069	23.04	162	.41	39,368	100.00
9	29,111	76.63	8,738	23.00	140	.37	37,989	100.00
10	26,636	76.59	7,985	22.96	158	.45	34,779	100.00
11	23,493	76.97	6,885	22.56	143	.47	30,521	100.00
12	21,062	77.23	6,097	22.36	113	.41	27,272	100.00
Ungraded	134	60.63	87	39.37	0	0.00	221	100.00
Dropouts	3,533	64.71	1,896	34.72	31	.57	5,460	100.00
Spec. Edu	720	45.71	849	53.91	6	.38	1,575	100.00
TOTAL	343,921	76.04	106,440	23.53	1,935	.43	452,296	100.00

Table B-2.--The number and percent of all students in Arkansas schools by grade level.

Grade Level	All Schools	
	Number	Percent
Pre-K	210	.05
K	17,559	3.88
1	34,459	7.62
2	33,447	7.39
3	34,015	7.52
4	36,363	8.04
5	38,962	8.61
6	39,260	8.68
Subtotal	234,275	51.79
7	40,836	9.03
8	39,368	8.70
9	37,989	8.40
Subtotal	118,193	26.13
10	34,779	7.69
11	30,521	6.75
12	27,272	6.03
Subtotal	92,572	20.47
Ungraded	221	.05
Dropouts	5,460	1.21
Special Education	1,575	.35
GRAND TOTAL	452,296	100.00

Summary

Racial Composition

76.04 percent of all students in Arkansas schools are white.

23.53 percent of all students in Arkansas schools are Negro.

.43 percent of all students in Arkansas schools are Latin American, Indian, or oriental.

Economic Level

33 percent of all students in Arkansas schools come from low-income families.

Grade Level

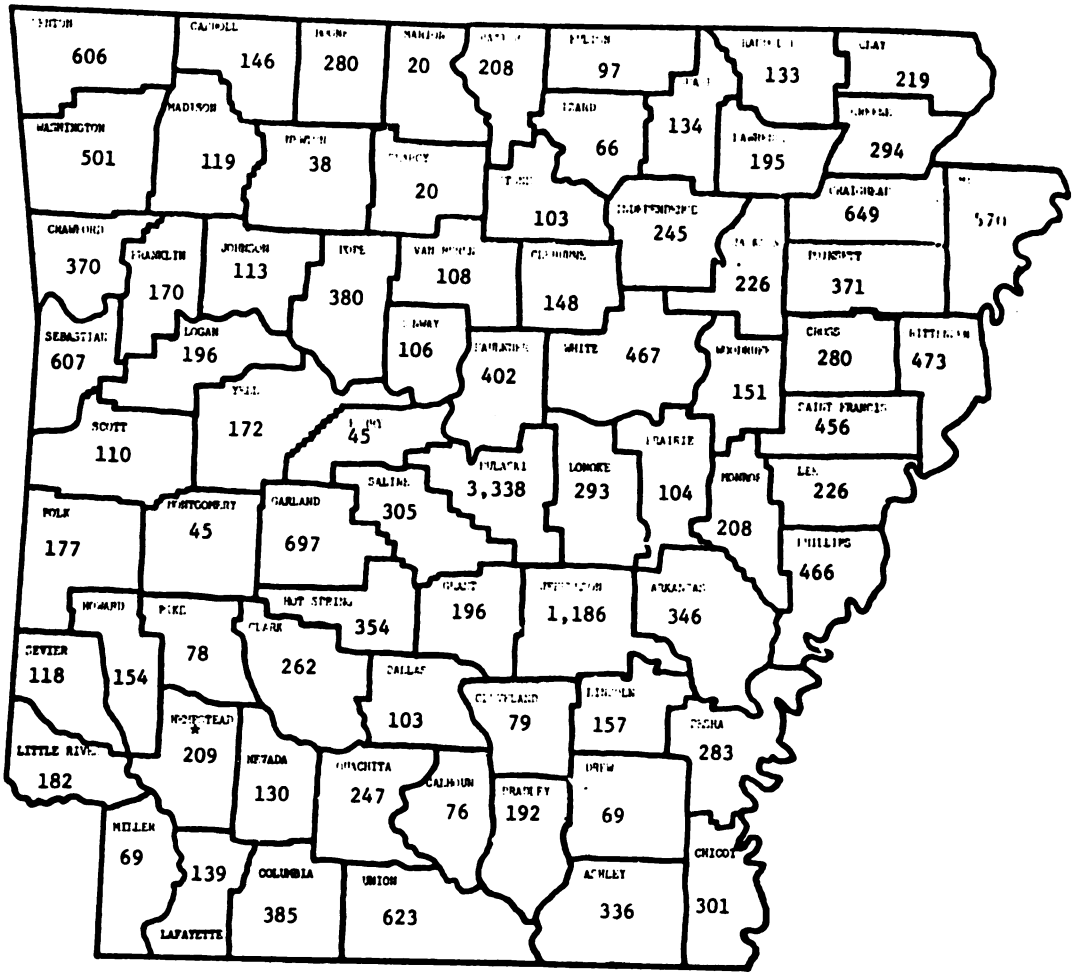
52 percent of all students in Arkansas schools are enrolled in elementary grades (K-6).

26 percent of all students in Arkansas schools are enrolled in junior high schools (7-9).

20 percent of all students in Arkansas schools are enrolled in senior high schools (10-12).

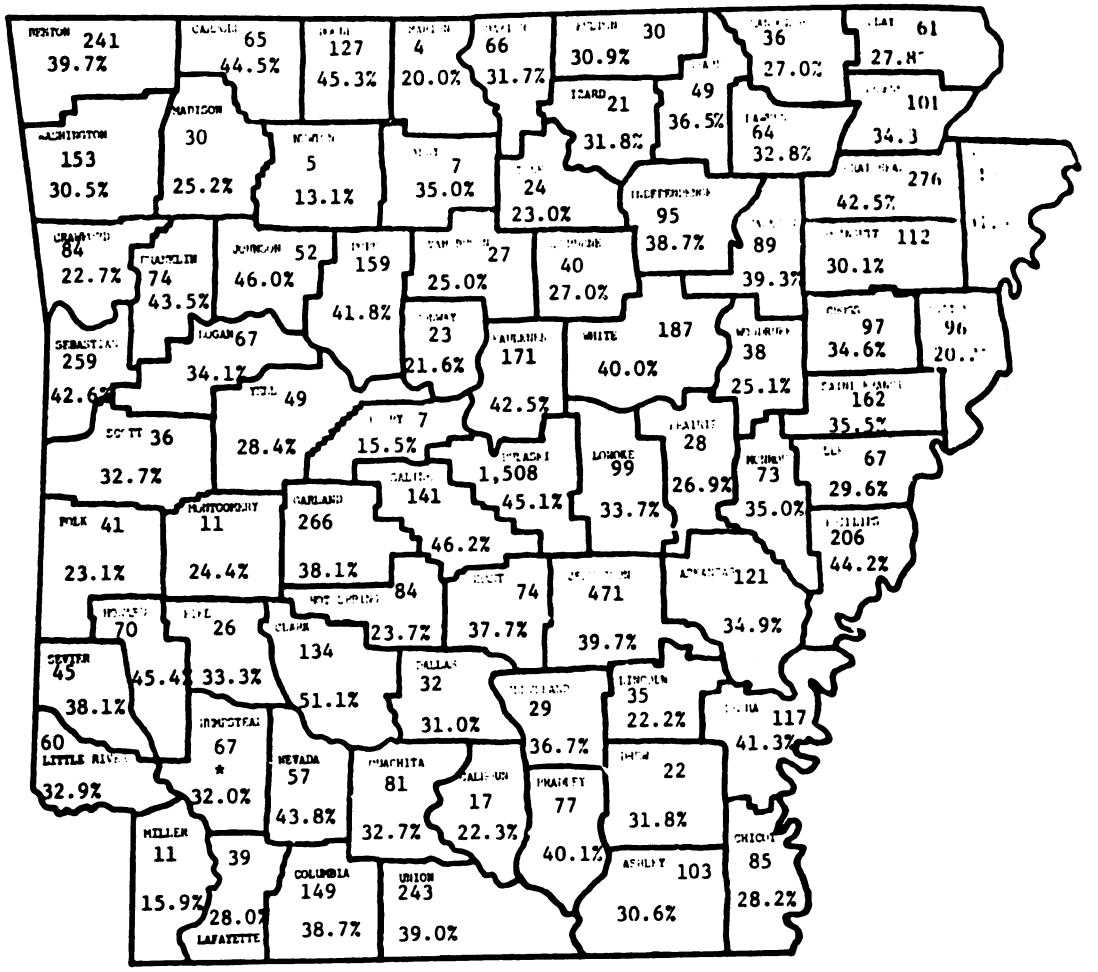
Hope High School in Hempstead County, Arkansas, is a typical Arkansas Public School.

Table B-3.--Number of 1974 Arkansas high school graduates by county.



*Study Population

Table B-4.--Number and percentage of the 1974 Arkansas high school graduates by county, who enrolled in college.



*Study Population

APPENDIX C

REPORT OF BASIC SOCIOECONOMIC CHARACTERISTICS OF THE STUDY POPULATION IN ARKANSAS

APPENDIX C

Report of Basic Socioeconomic Characteristics of the Study Population in Arkansas

Socioeconomic data, pages 200-215, for Hempstead County was lifted from the Atlas of Arkansas.[1] Hope High School is located in Hempstead County.

The population included in this study were all residents of Hempstead County, Hope, Arkansas.

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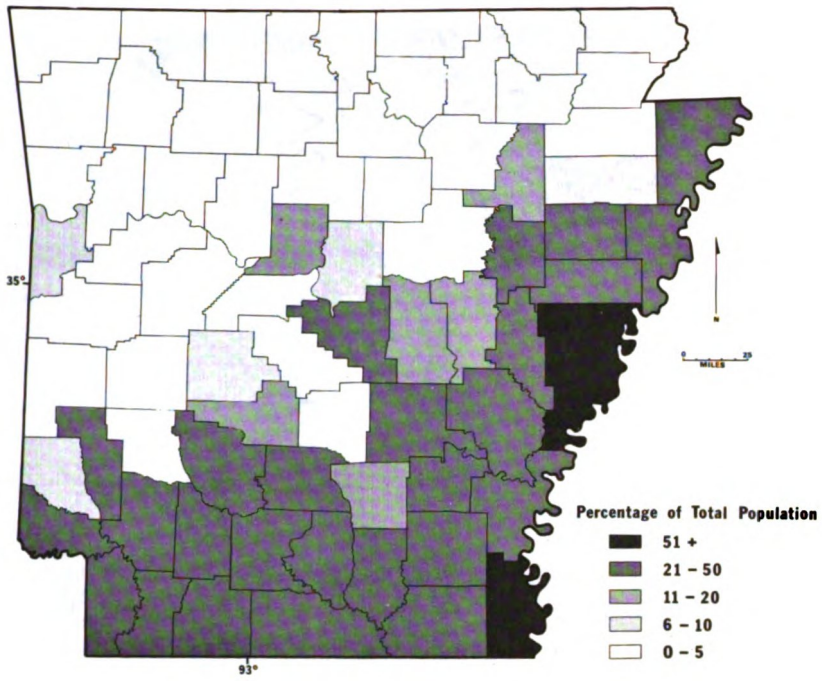
[1]Joe Yates (Ed.), Atlas of Arkansas, Arkansas Department of Planning, Little Rock, Arkansas, August, 1973, pp. 1-99.

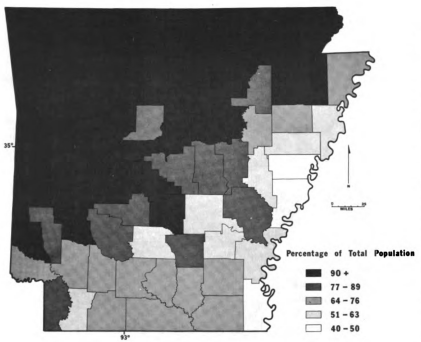


NON-WHITE POPULATION, 1970

SOURCE: U.S. CENSUS OF POPULATION, 1970

NON-WHITE POPULATION

County	Percent	County	Percent
Arkansas	22.9	Lee	58.0
Ashley	30.3	Lincoln	42.0
Baxter	0.4	Little River	27.5
Benton	0.7	Logan	1.9
Boone	0.1	Lonoke	18.4
Bradley	31.7	Madison	0.2
Calhoun	32.4	Marion	0.3
Carroll	0.2	Miller	22.9
Chicot	54.6	Mississippi	27.0
Clark	22.5	Monroe	44.0
Clay	0.2	Montgomery	0.3
Cleburne	0.1	Nevada	32.5
Cleveland	19.9	Newton	0.2
Columbia	35.2	Ouachita	36.1
Conway	17.2	Perry	2.9
Craighead	3.3	Phillips	54.4
Crawford	2.2	Pike	4.6
Crittenden	47.5	Poinsett	8.8
Cross	28.0	Polk	0.3
Dallas	38.6	Pope	2.5
Desha	43.9	Prairie	16.5
Drew	30.3	Pulaski	20.6
Faulkner	9.1	Randolph	1.4
Franklin	1.8	St. Francis	47.8
Fulton	0.1	Saline	3.9
Garland	9.7	Scott	0.2
Grant	4.4	Searcy	0.2
Greene	0.2	Sebastian	6.1
Hempstead	33.1	Sevier	7.1
Hot Spring	12.6	Sharp	0.6
Howard	20.5	Stone	0.1
Independence	2.4	Union	29.6
Izard	0.3	Van Buren	0.7
Jackson	15.0	Washington	1.3
Jefferson	40.8	White	3.4
Johnson	2.1	Woodruff	35.2
Lafayette	43.5	Yell	2.9
Lawrence	1.0		

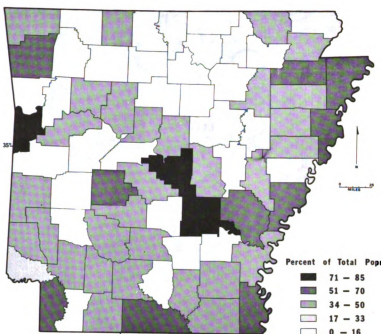


WHITE POPULATION, 1970

SOURCE: U.S. CENSUS OF POPULATION, 1970

WHITE POPULATION

County	Percent
Arkansas	77.1
Ashley	69.7
Baxter	99.6
Benton	99.3
Boone	99.9
Bradley	68.3
Calhoun	67.6
Carroll	99.8
Chicot	45.4
Clark	77.5
Clay	99.8
Cleburne	99.9
Cleveland	80.1
Columbia	64.8
Conway	82.8
Craighead	96.7
Crawford	97.8
Crittenden	52.5
Cross	72.0
Dallas	61.4
Desha	56.1
Drew	69.7
Faulkner	90.9
Franklin	98.2
Fulton	99.9
Garland	90.3
Grant	95.6
Greene	99.8
Hempstead	66.9
Hot Spring	87.4
Howard	79.5
Independence	97.6
Izard	99.7
Jackson	85.0
Jefferson	59.2
Johnson	97.9
Lafayette	56.5
Lawrence	99.0
Lee	42.0
Lincoln	58.0
Little River	72.5
Logan	98.1
Lonoke	81.6
Madison	99.8
Marion	99.7
Miller	77.1
Mississippi	73.0
Monroe	56.0
Montgomery	99.7
Nevada	67.5
Newton	99.8
Ouachita	63.9
Perry	97.1
Phillips	45.6
Pike	95.4
Poinsett	91.2
Polk	99.7
Pope	97.5
Prairie	83.5
Pulaski	79.4
Randolph	98.6
St. Francis	52.2
Saline	96.1
Scott	99.8
Searcy	99.8
Sebastian	93.9
Sevier	92.9
Sharp	99.4
Stone	99.9
Union	70.4
Van Buren	99.3
Washington	98.7
White	96.6
Woodruff	64.8
Yell	97.1



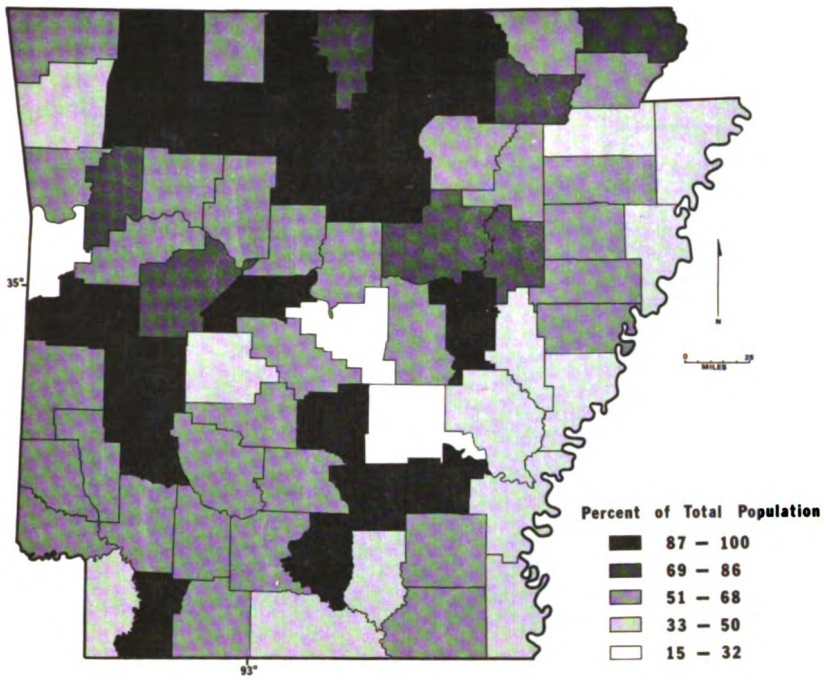
URBAN POPULATION, 1970

SOURCE: U.S. CENSUS OF POPULATION, 1970

URBAN POPULATION

County	Percent	County	Percent
Arkansas	60.8	Lee	32.8
Ashley	48.8	Lincoln	0.0
Baxter	25.7	Little River	31.5
Benton	45.5	Logan	41.0
Boone	38.0	Lonoke	34.7
Bradley	50.3	Madison	0.0
Calhoun	0.0	Marion	0.0
Carroll	0.0	Miller	64.9
Chicot	61.9	Mississippi	51.5
Clark	45.7	Monroe	50.1
Clay	30.9	Montgomery	0.0
Cleburne	0.0	Nevada	38.8
Cleveland	0.0	Newton	0.0
Columbia	43.6	Ouachita	49.0
Conway	40.5	Perry	0.0
Craighead	52.0	Phillips	53.5
Crawford	32.6	Pike	0.0
Crittenden	60.4	Poinsett	34.1
Cross	33.8	Polk	34.1
Dallas	48.3	Pope	41.1
Desha	49.5	Prairie	0.0
Drew	33.5	Pulaski	84.4
Faulkner	49.1	Randolph	35.9
Franklin	22.9	St. Francis	40.7
Fulton	0.0	Saline	45.7
Garland	65.8	Scott	0.0
Grant	0.0	Searcy	0.0
Greene	43.0	Sebastian	82.1
Hempstead	45.6	Sevier	34.3
Hot Spring	39.8	Sharp	0.0
Howard	35.2	Stone	0.0
Independence	31.7	Union	55.7
Izard	0.0	Van Buren	0.0
Jackson	37.8	Washington	60.9
Jefferson	71.4	White	30.2
Johnson	33.9	Woodruff	24.0
Lafayette	0.0	Yell	23.2
Lawrence	23.3		
		STATE	50.0

The urban population, by U. S. Census Bureau definition, consists of all persons who live in places of 2,500 inhabitants or more whether incorporated or not and in other territory included in urbanized areas. All other inhabitants constitute the rural population.

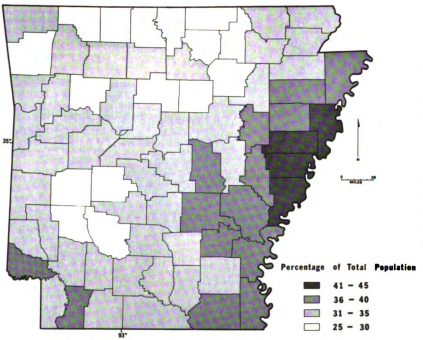


RURAL POPULATION, 1970

SOURCE: U.S. CENSUS OF POPULATION, 1970

RURAL POPULATION

County	Percent	County	Percent
Arkansas	39.2	Lee	67.2
Ashley	51.2	Lincoln	100.0
Baxter	74.3	Little River	68.5
Benton	54.5	Logan	59.0
Boone	62.0	Lonoke	65.3
Bradley	49.7	Madison	100.0
Calhoun	100.0	Marion	100.0
Carroll	100.0	Miller	35.1
Chicot	38.1	Mississippi	48.5
Clark	54.3	Monroe	49.9
Clay	69.1	Montgomery	100.0
Cleburne	100.0	Nevada	61.2
Cleveland	100.0	Newton	100.0
Columbia	56.4	Ouachita	51.0
Conway	59.5	Perry	100.0
Craighead	48.0	Phillips	46.5
Crawford	67.4	Pike	100.0
Crittenden	39.6	Poinsett	65.9
Cross	66.2	Polk	65.9
Dallas	51.7	Pope	58.9
Desha	50.5	Prairie	100.0
Drew	66.5	Pulaski	15.6
Faulkner	50.9	Randolph	64.1
Franklin	77.1	St. Francis	59.3
Fulton	100.0	Saline	54.3
Garland	34.2	Scott	100.0
Grant	100.0	Searcy	100.0
Greene	57.0	Sebastian	17.9
Hempstead	54.4	Sevier	65.7
Hot Spring	60.2	Sharp	100.0
Howard	64.8	Stone	100.0
Independence	68.3	Union	44.3
Izard	100.0	Van Buren	100.0
Jackson	62.2	Washington	39.1
Jefferson	28.6	White	69.8
Johnson	66.1	Woodruff	76.0
Lafayette	100.0	Yell	76.8
Lawrence	76.7		
		STATE	50.0

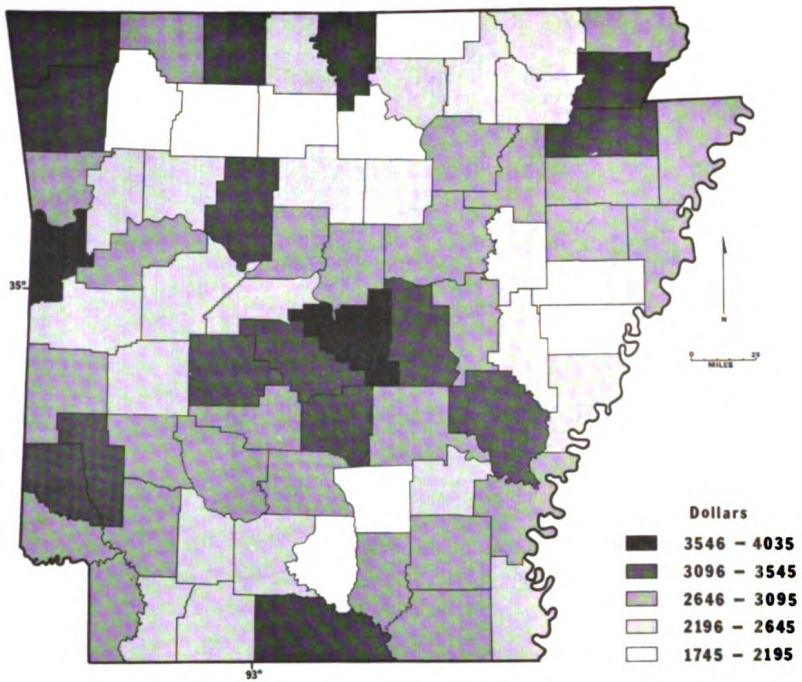


PERSONS UNDER 18 YEARS OF AGE
1970

SOURCE: U. S. CENSUS OF POPULATION, 1970

PERSONS UNDER 18 YEARS OF AGE

County	Percent	County	Percent
Arkansas	35.6	Lee	43.0
Ashley	38.1	Lincoln	36.9
Baxter	24.7	Little River	37.2
Benton	31.9	Logan	31.1
Boone	30.4	Lonoke	36.7
Bradley	33.7	Madison	31.6
Calhoun	33.5	Marion	26.9
Carroll	28.2	Miller	34.6
Chicot	40.1	Mississippi	39.0
Clark	28.2	Monroe	39.4
Clay	30.9	Montgomery	30.3
Cleburne	28.6	Nevada	31.1
Cleveland	33.8	Newton	33.2
Columbia	32.4	Ouachita	33.9
Conway	35.2	Perry	34.2
Craighead	31.6	Phillips	41.8
Crawford	34.6	Pike	30.3
Crittenden	42.9	Poinsett	36.6
Cross	39.6	Polk	30.5
Dallas	32.5	Pope	31.4
Desha	39.5	Prairie	35.1
Drew	33.6	Pulaski	34.4
Faulkner	31.0	Randolph	32.4
Franklin	32.5	St. Francis	42.0
Fulton	29.1	Saline	34.6
Garland	29.2	Scott	31.4
Grant	33.2	Searcy	31.8
Greene	32.0	Sebastian	33.6
Hempstead	32.4	Sevier	32.4
Hot Spring	32.4	Sharp	28.3
Howard	31.0	Stone	32.9
Independence	30.4	Union	33.4
Izard	27.9	Van Buren	29.6
Jackson	33.8	Washington	30.1
Jefferson	37.2	White	31.2
Johnson	28.7	Woodruff	36.9
Lafayette	36.0	Yell	31.3
Lawrence	31.0		
		STATE	34.1

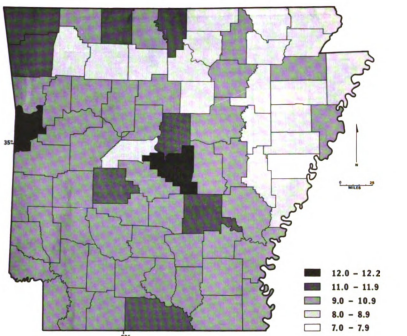


PER CAPITA INCOME, 1971

SOURCE: UNIVERSITY OF ARKANSAS INDUSTRIAL RESEARCH AND EXTENSION CENTER

PER CAPITA INCOME

County	Dollars	County	Dollars
Arkansas	3,271	Lee	2,066
Ashley	3,053	Lincoln	2,241
Baxter	3,105	Little River	2,856
Benton	3,219	Logan	2,648
Boone	3,211	Lonoke	3,222
Bradley	2,661	Madison	2,034
Calhoun	2,005	Marion	2,458
Carroll	2,955	Miller	2,994
Chicot	2,381	Mississippi	2,752
Clark	2,741	Monroe	2,310
Clay	2,704	Montgomery	2,463
Cleburne	2,569	Nevada	2,391
Cleveland	2,121	Newton	1,745
Columbia	2,625	Ouachita	2,612
Conway	2,681	Perry	2,357
Craighead	3,336	Phillips	2,442
Crawford	2,807	Pike	2,690
Crittenden	2,750	Poinsett	2,925
Cross	2,997	Polk	2,729
Dallas	2,693	Pope	3,265
Desha	2,773	Prairie	2,700
Drew	2,795	Pulaski	4,035
Faulkner	2,819	Randolph	2,583
Franklin	2,468	St. Francis	2,460
Fulton	2,110	Saline	3,248
Garland	3,446	Scott	2,392
Grant	3,099	Searcy	2,082
Greene	3,136	Sebastian	3,802
Hempstead	2,893	Sevier	3,165
Hot Spring	3,093	Sharp	2,394
Howard	3,279	Stone	2,020
Independence	2,868	Union	3,150
Izard	2,594	Van Buren	2,255
Jackson	2,870	Washington	3,350
Jefferson	2,979	White	2,791
Johnson	2,582	Woodruff	2,578
Lafayette	2,426	Yell	2,632
Lawrence	2,642		



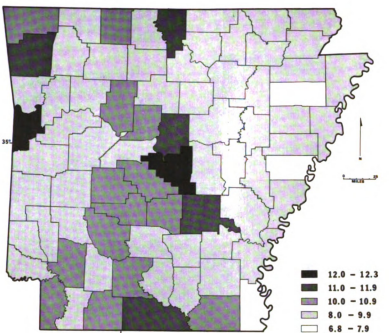
MEDIAN SCHOOL YEARS COMPLETED, 1970

ALL PERSONS AGE 25 AND OVER

SOURCE: U.S. CENSUS OF POPULATION, 1970

MEDIAN SCHOOL YEARS COMPLETED

County	Years	County	Years
Arkansas	10.1	Lee	7.8
Ashley	10.5	Lincoln	8.7
Baxter	11.4	Little River	9.7
Benton	11.0	Logan	9.5
Boone	11.0	Lonoke	10.0
Bradley	10.0	Madison	8.7
Calhoun	9.9	Marion	9.8
Carroll	10.4	Miller	10.8
Chicot	8.5	Mississippi	8.9
Clark	10.9	Monroe	8.7
Clay	8.6	Montgomery	9.8
Cleburne	8.8	Nevada	9.4
Cleveland	9.7	Newton	8.7
Columbia	10.6	Ouachita	10.6
Conway	10.4	Perry	8.9
Craighead	10.0	Phillips	8.5
Crawford	10.1	Pike	9.7
Crittenden	9.0	Poinsett	8.3
Cross	8.7	Polk	9.7
Dallas	9.9	Pope	10.7
Desha	9.0	Prairie	9.0
Drew	10.0	Pulaski	12.2
Faulkner	11.8	Randolph	8.6
Franklin	9.9	St. Francis	8.9
Fulton	8.8	Saline	10.8
Garland	11.3	Scott	9.0
Grant	10.3	Searcy	8.7
Greene	8.8	Sebastian	12.0
Hempstead	10.4	Sevier	10.2
Hot Spring	10.5	Sharp	9.1
Howard	9.7	Stone	8.6
Independence	10.2	Union	11.5
Izard	8.8	Van Buren	9.0
Jackson	8.9	Washington	11.8
Jefferson	11.1	White	9.8
Johnson	9.5	Woodruff	8.8
Lafayette	9.5	Yell	9.6
Lawrence	8.7		



MEDIAN SCHOOL YEARS COMPLETED

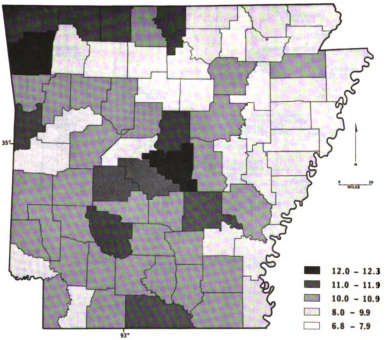
MALES, 1970

AGE 25 AND OVER

SOURCE: U.S. CENSUS OF POPULATION, 1970

MEDIAN SCHOOL YEARS COMPLETED, MALES

County	Years	County	Years
Arkansas	9.3	Lee	6.8
Ashley	10.4	Lincoln	8.3
Baxter	11.0	Little River	9.5
Benton	10.6	Logan	9.0
Boone	10.6	Lonoke	9.5
Bradley	9.3	Madison	8.6
Calhoun	9.2	Marion	9.0
Carroll	9.7	Miller	10.5
Chicot	7.9	Mississippi	8.8
Clark	10.5	Monroe	8.4
Clay	8.4	Montgomery	8.9
Cleburne	8.7	Nevada	8.8
Cleveland	9.3	Newton	8.5
Columbia	10.3	Ouachita	10.3
Conway	10.3	Perry	8.5
Craighead	9.7	Phillips	8.3
Crawford	9.7	Pike	9.5
Crittenden	8.7	Poinsett	7.9
Cross	8.4	Polk	9.2
Dallas	9.4	Pope	10.7
Desha	8.8	Prairie	8.8
Drew	9.4	Pulaski	12.3
Faulkner	11.7	Randolph	8.4
Franklin	9.7	St. Francis	8.5
Fulton	8.7	Saline	10.5
Garland	10.9	Scott	8.8
Grant	10.0	Searcy	8.6
Greene	8.7	Sebastian	12.0
Hempstead	10.0	Sevier	9.6
Hot Spring	10.3	Sharp	8.9
Howard	9.3	Stone	8.5
Independence	9.9	Union	11.4
Izard	8.7	Van Buren	8.8
Jackson	8.7	Washington	11.6
Jefferson	11.1	White	9.2
Johnson	8.9	Woodruff	8.2
Lafayette	8.9	Yell	9.0
Lawrence	8.7		



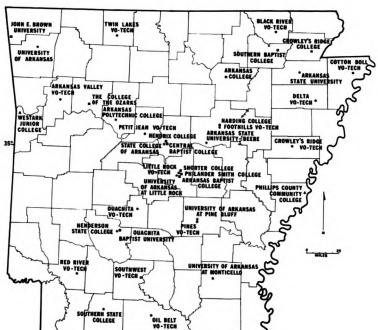
MEDIAN SCHOOL YEARS COMPLETED, FEMALES, 1970

AGE 25 AND OVER

SOURCE: U. S. CENSUS OF POPULATION, 1970

MEDIAN SCHOOL YEARS COMPLETED, FEMALES

County	Years	County	Years
Arkansas	10.6	Lee	8.3
Ashley	10.6	Lincoln	9.2
Baxter	11.7	Little River	9.8
Benton	11.3	Logan	9.9
Boone	11.4	Lonoke	10.3
Bradley	10.4	Madison	8.8
Calhoun	10.4	Marion	10.3
Carroll	11.0	Miller	10.9
Chicot	8.9	Mississippi	9.0
Clark	11.1	Monroe	8.9
Clay	8.7	Montgomery	10.4
Cleburne	9.0	Nevada	10.0
Cleveland	10.0	Newton	8.8
Columbia	10.8	Ouachita	10.8
Conway	10.5	Perry	9.6
Craighead	10.2	Phillips	8.7
Crawford	10.4	Pike	10.0
Crittenden	9.3	Poinsett	8.6
Cross	8.9	Polk	10.0
Dallas	10.3	Pope	10.7
Desha	9.1	Prairie	9.6
Drew	10.4	Pulaski	12.2
Faulkner	11.9	Randolph	8.7
Franklin	10.0	St. Francis	9.4
Fulton	8.9	Saline	11.0
Garland	11.6	Scott	9.4
Grant	10.5	Searcy	8.7
Greene	8.9	Sebastian	11.9
Hempstead	10.7	Sevier	10.7
Hot Spring	10.6	Sharp	9.4
Howard	10.0	Stone	8.7
Independence	10.4	Union	11.5
Izard	8.9	Van Buren	9.4
Jackson	9.1	Washington	12.0
Jefferson	11.2	White	10.1
Johnson	10.0	Woodruff	9.4
Lafayette	9.9	Yell	10.0
Lawrence	8.8		

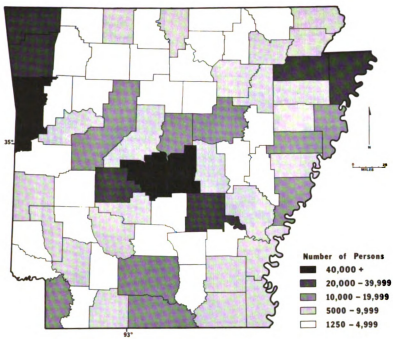


UNIVERSITIES, COLLEGES, AND VO-TECH SCHOOLS, 1972

SOURCE: ARKANSAS EDUCATIONAL DIRECTORY, 1971-72

UNIVERSITIES, COLLEGES, AND VO-TECH SCHOOLS

Universities and Colleges	City	Public or Private
Arkansas Baptist College	Little Rock	Private
Arkansas College	Batesville	"
Arkansas Polytechnic College	Russellville	Public
Arkansas State University	State University	"
Arkansas State University, Beebe Branch	Beebe	"
Central Baptist College	Conway	Private
Crowley's Ridge College	Paragould	"
Harding College	Searcy	"
Henderson State College	Arkadelphia	Public
Hendrix College	Conway	Private
John E. Brown University	Siloam Springs	"
Ouachita Baptist University	Arkadelphia	"
Philander Smith College	Little Rock	"
Phillips County Community College	Helena	Public
Shorter College	North Little Rock	Private
Southern Baptist College	Walnut Ridge	"
Southern State College	Magnolia	Public
State College of Arkansas	Conway	"
The College of the Ozarks	Clarksville	Private
University of Arkansas	Fayetteville	Public
University of Arkansas at Little Rock	Little Rock	"
University of Arkansas at Monticello	Monticello	"
University of Arkansas at Pine Bluff	Pine Bluff	"
Westark Junior College	Fort Smith	"
Vocational-Technical Schools		
Arkansas Valley Vo-Tech	Ozark	Public
Black River Vo-Tech	Pocahontas	"
Cotton Boll Vo-Tech	Burdette	"
Crowley's Ridge Vo-Tech	Forrest City	"
Delta Vo-Tech	Marked Tree	"
Foothills Vo-Tech	Searcy	"
Little Rock Vo-Tech	Little Rock	"
Oil Belt Vo-Tech	El Dorado	"
Ouachita Vo-Tech	Malvern	"
Petit Jean Vo-Tech	Morrilton	"
Pines Vo-Tech	Pine Bluff	"
Red River Vo-Tech	Hope	"
Southwest Vo-Tech	East Camden	"
Twin Lakes Vo-Tech	Harrison	"



TOTAL CIVILIAN LABOR FORCE

1972

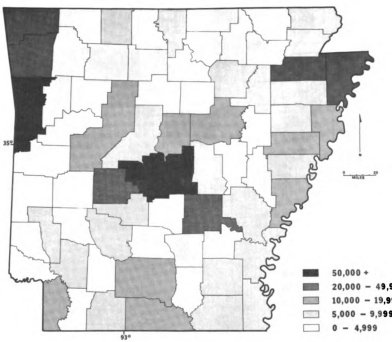
BY LABOR AREA

SOURCE: ARKANSAS DEPARTMENT OF LABOR

TOTAL CIVILIAN LABOR FORCE

County	Labor Force
Arkansas	9,500
Ashley	9,575
Baxter	6,400
Benton	21,750
Boone	7,800
Bradley	4,725
Calhoun & Ouachita	12,625
Carroll	4,875
Chicot	5,650
Clark	8,425
Clay	6,300
Cleburne	3,100
Cleveland	1,375
Columbia	9,325
Conway & Perry	6,875
Craighead	22,275
Crawford & Sebastian	60,250
Crittenden	15,250
Cross	7,125
Dallas	3,775
Desha	7,050
Drew	5,550
Faulkner	12,375
Franklin	3,700
Fulton	2,225
Garland	21,700
Grant	2,600
Greene	9,975
Hempstead	7,025
Hot Spring	7,075
Howard	5,225
Independence	9,625
Izard	2,325
Jackson	7,775
Jefferson	33,125
Johnson	4,150
Lafayette	3,375
Lawrence	5,275
Lee	5,775
Lincoln	2,975
Little River	4,075
Logan	5,550
Lonoke	8,000
Madison	2,525
Marion	2,150
Miller	10,950
Mississippi	22,250
Monroe	4,375
Montgomery	1,800
Nevada	3,250
Newton	1,250
Ouachita (see Calhoun)	
Perry (see Conway)	
Phillips	12,825
Pike	2,600
Poinsett	9,675
Polk	5,000
Pope & Yell	16,950
Prairie	3,050
Pulaski & Saline	148,000
Randolph	4,250
St. Francis	12,900
Saline (see Pulaski)	
Scott	2,425
Searcy	2,475
Sebastian (see Crawford)	
Sevier	4,125
Sharp	2,700
Stone	2,000
Union	18,100
Van Buren	2,425
Washington	35,050
White	13,700
Woodruff	4,125
Yell (see Pope)	

Statistics used are for labor areas. Labor area data are compiled for the major center of employment in a county or in some cases a group of counties. Labor areas that include more than one county are: Camden Labor Area (Calhoun and Ouachita counties); Fort Smith Standard Metropolitan Statistical Area (Sebastian and Crawford counties, Arkansas, and LeFlore and Sequoyah counties, Oklahoma); Little Rock-North Little Rock Standard Metropolitan Statistical Area (Pulaski and Saline counties); Morilton Labor Area (Conway and Perry counties); and Russellville Labor Area (Pope and Yell counties).



MEAN NUMBER OF PERSONS EMPLOYED, 1972

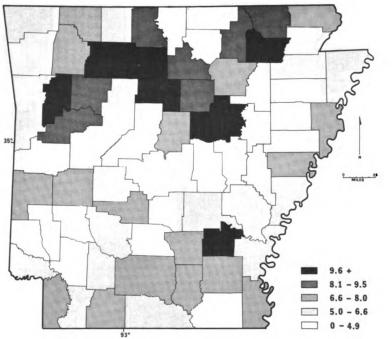
BY LABOR AREA

SOURCE: ARKANSAS DEPARTMENT OF LABOR

MEAN NUMBER OF PERSONS EMPLOYED

County	Number Employed	County	Number Employed
Arkansas	9,100	Lee	5,350
Ashley	9,150	Lincoln	2,575
Baxter	6,100	Little River	3,850
Benton	20,375	Logan	5,075
Boone	7,350	Lonoke	7,650
Bradley	4,375	Madison	2,325
Calhoun & Ouachita	11,625	Marion	1,975
Carroll	4,550	Miller	10,200
Chicot	5,275	Mississippi	20,975
Clark	7,900	Monroe	4,125
Clay	5,875	Montgomery	1,675
Cleburne	2,825	Nevada	3,050
Cleveland	1,275	Newton	1,125
Columbia	8,675	Ouachita (see Calhoun)	
Conway & Perry	6,450	Perry (see Conway)	
Craighead	21,200	Phillips	12,075
Crawford & Sebastian	56,700	Pike	2,475
Crittenden	14,200	Poinsett	9,125
Cross	6,800	Polk	4,600
Dallas	3,600	Pope & Yell	15,850
Desha	6,700	Prairie	2,925
Drew	5,175	Pulaski & Saline	143,200
Faulkner	11,500	Randolph	3,850
Franklin	3,300	St. Francis	12,375
Fulton	2,100	Saline (see Pulaski)	
Garland	20,725	Scott	2,300
Grant	2,450	Searcy	2,225
Greene	9,450	Sebastian (see Crawford)	
Hempstead	6,700	Sevier	3,925
Hot Spring	6,500	Sharp	2,475
Howard	5,000	Stone	1,825
Independence	8,925	Union	17,050
Izard	2,175	Van Buren	2,050
Jackson	7,275	Washington	33,625
Jefferson	31,275	White	12,050
Johnson	3,800	Woodruff	3,900
Lafayette	3,200	Yell (see Pope)	
Lawrence	4,650	STATE	712,150

Statistics used are for labor areas. Labor area data are compiled for the major center of employment in a county or in some cases a group of counties. Labor areas that include more than one county are: Camden Labor Area (Calhoun and Ouachita counties); Fort Smith Standard Metropolitan Statistical Area (Sebastian and Crawford counties, Arkansas, and LeFlore and Sequoyah counties, Oklahoma); Little Rock-North Little Rock Standard Metropolitan Statistical Area (Pulaski and Saline counties); Morrilton Labor Area (Conway and Perry counties); and Russellville Labor Area (Pope and Yell counties).



MEAN PERCENTAGE RATE OF UNEMPLOYMENT, 1972

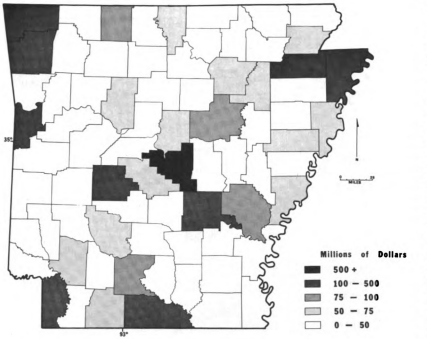
BY LABOR AREA

SOURCE: ARKANSAS DEPARTMENT OF LABOR

MEAN PERCENTAGE RATE OF UNEMPLOYMENT

County	Percent	County	Percent
Arkansas	4.7	Lee	7.4
Ashley	4.4	Lincoln	13.4
Baxter	4.7	Little River	5.5
Benton	6.3	Logan	8.6
Boone	5.8	Lonoke	4.4
Bradley	6.9	Madison	7.9
Calhoun & Ouachita	7.9	Marion	8.1
Carroll	6.7	Miller	6.8
Chicot	6.6	Mississippi	5.7
Clark	5.3	Monroe	5.7
Clay	6.7	Montgomery	6.9
Cleburne	8.9	Nevada	6.2
Cleveland	7.3	Newton	10.0
Columbia	7.0	Ouachita (see Calhoun)	
Conway & Perry	6.2	Perry (see Conway)	
Craighead	4.8	Phillips	5.8
Crawford & Sebastian	5.9	Pike	4.8
Crittenden	6.9	Poinsett	5.7
Cross	4.6	Polk	8.0
Dallas	4.6	Pope & Yell	6.5
Desha	5.0	Prairie	4.1
Drew	6.8	Pulaski & Saline	4.7
Faulkner	7.1	Randolph	9.4
Franklin	10.8	St. Francis	4.1
Fulton	5.6	Saline (see Pulaski)	
Garland	4.3	Scott	5.2
Grant	5.8	Searcy	10.1
Greene	5.3	Sebastian (see Crawford)	
Hempstead	4.6	Sevier	4.8
Hot Spring	7.4	Sharp	8.3
Howard	4.3	Stone	8.8
Independence	7.3	Union	5.8
Izard	6.5	Van Buren	15.5
Jackson	6.4	Washington	4.1
Jefferson	5.6	White	12.0
Johnson	8.4	Woodruff	5.5
Lafayette	5.2	Yell (see Pope)	
Lawrence	11.8		

Statistics used are for labor areas. Labor area data are compiled for the major center of employment in a county or in some cases a group of counties. Labor areas that include more than one county are: Camden Labor Area (Calhoun and Ouachita counties); Fort Smith Standard Metropolitan Statistical Area (Sebastian and Crawford counties, Arkansas, and LeFlore and Sequoyah counties, Oklahoma); Little Rock-North Little Rock Standard Metropolitan Statistical Area (Pulaski and Saline counties); Morrilton Labor Area (Conway and Perry counties); and Russellville Labor Area (Pope and Yell counties).



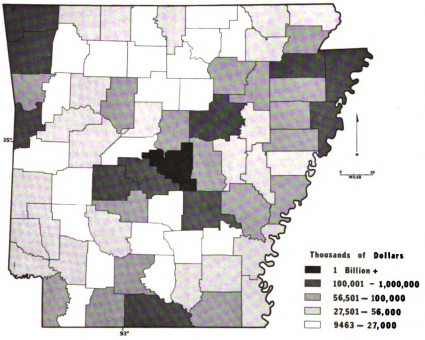
TOTAL FINANCIAL RESOURCES, 1972

INCLUDES BANKS AND SAVINGS AND LOAN ASSOCIATIONS

SOURCE: ARKANSAS BANK DIVISION

TOTAL FINANCIAL RESOURCES

County	Dollars 000 omitted	County	Dollars 000 omitted
Arkansas	88,811	Lee	17,941
Ashley	40,449	Lincoln	7,702
Baxter	67,621	Little River	10,264
Benton	138,669	Logan	29,777
Boone	81,358	Lonoke	39,643
Bradley	31,573	Madison	13,510
Calhoun	5,000	Marion	7,494
Carroll	34,670	Miller	132,469
Chicot	30,895	Mississippi	103,145
Clark	63,437	Monroe	23,394
Clay	33,234	Montgomery	7,314
Cleburne	26,430	Nevada	21,684
Cleveland	3,936	Newton	3,976
Columbia	66,555	Ouachita	76,692
Conway	37,177	Perry	4,908
Craighead	148,468	Phillips	64,906
Crawford	33,559	Pike	16,205
Crittenden	71,217	Poinsett	44,589
Cross	39,820	Polk	28,505
Dallas	17,755	Pope	70,637
Desha	30,790	Prairie	12,974
Drew	30,712	Pulaski	1,108,804
Faulkner	68,602	Randolph	43,448
Franklin	14,944	St. Francis	57,872
Fulton	10,569	Saline	50,413
Garland	180,789	Scott	10,635
Grant	9,193	Searcy	9,100
Greene	54,126	Sebastian	369,482
Hempstead	50,083	Sevier	22,717
Hot Spring	40,635	Sharp	12,790
Howard	20,682	Stone	6,301
Independence	61,550	Union	137,709
Izard	9,117	Van Buren	11,638
Jackson	50,693	Washington	245,280
Jefferson	244,631	White	79,643
Johnson	28,121	Woodruff	19,444
Lafayette	21,438	Yell	30,796
Lawrence	19,373		
		STATE	5,009,983



TOTAL PERSONAL INCOME
1970

SOURCE: UNIVERSITY OF ARKANSAS INDUSTRIAL RESEARCH AND EXTENSION CENTER

TOTAL PERSONAL INCOME

County	Dollars 000 omitted	County	Dollars 000 omitted
Arkansas	74,270	Lee	38,180
Ashley	72,954	Lincoln	27,222
Baxter	41,860	Little River	29,950
Benton	155,259	Logan	38,634
Boone	56,144	Lonoke	73,089
Bradley	31,446	Madison	18,169
Calhoun	10,826	Marion	15,124
Carroll	33,538	Miller	96,084
Chicot	41,939	Mississippi	158,584
Clark	55,499	Monroe	35,606
Clay	49,287	Montgomery	12,852
Cleburne	24,395	Nevada	21,353
Cleveland	13,247	Newton	9,463
Columbia	66,180	Ouachita	80,281
Conway	41,940	Perry	12,459
Craighead	163,154	Phillips	90,889
Crawford	65,385	Pike	21,559
Crittenden	129,086	Poinsett	74,807
Cross	57,985	Polk	33,635
Dallas	25,216	Pope	79,990
Desha	48,600	Prairie	29,227
Drew	39,717	Pulaski	1,062,061
Faulkner	82,338	Randolph	32,109
Franklin	26,404	St. Francis	72,770
Fulton	15,434	Saline	110,094
Garland	163,301	Scott	18,674
Grant	27,150	Searcy	15,652
Greene	72,347	Sebastian	275,385
Hempstead	52,583	Sevier	31,770
Hot Spring	60,656	Sharp	17,636
Howard	31,389	Stone	12,473
Independence	61,444	Union	137,465
Izard	16,074	Van Buren	17,400
Jackson	57,865	Washington	240,668
Jefferson	238,760	White	104,940
Johnson	32,931	Woodruff	30,707
Lafayette	22,552	Yell	36,553
Lawrence	44,086		
		STATE	5,516,755

APPENDIX D

LETTERS

SOUTHERN STATE COLLEGE

MAGNOLIA, ARKANSAS

January 3, 1974

Dear

You are one of a group of students whose academic performance has not reached the level we would have expected from your test scores. It is recognized that many factors may be involved in your performance. The factors frequently listed by other students who have been in academic difficulty are study techniques, reading skills, personal problems and family relationships. We are certain that group counseling can be of significant aid in helping you deal with some of these problem areas. We have, therefore, arranged a group counseling experience similar in nature to those which have shown encouraging results at a number of other high schools.

The experience we are suggesting requires that you attend a small discussion group one hour a week for eighteen weeks during this spring semester. The group will meet in the Agriculture-A Building and will be composed of eleventh grade students having similar difficulties. It will be led by two counselors from Southern State College.

If you decide to join one of our groups, we would like to point out the necessity of continuing throughout the whole eighteen weeks. A helpful group experience is dependent upon the regular attendance of each member.

Please indicate on the enclosed form the hours which you will be in study hall and return it to the counseling center as soon as you have completed registration. Seal the form in the enclosed envelope and hand it to Mrs. Wood. You will be contacted by us as to the hour which best fits both of our schedules.

Sincerely yours,

Earl Downs
Counselor

Ann K. Thomas
Southern State College

AT/aw

Date of Withdrawal

_____

Cause_____

HOPE PUBLIC SCHOOLS
Enrollment Card

Yr. 19____ 19_____ Grade_____

NAME _____ HOME PHONE: _____
Last name First Middle

MAILING ADDRESS: _____

RESIDENCE ADDRESS: _____

DATE OF BIRTH: Month Day Year

PLACE OF BIRTH: County or City STATE

Parent's or Guardian's Name: Address:

Occupation of Parent or Guardian:

How far do you live from school? miles. Do you ride the bus? No.

Do parents or guardian live in this School District?

Name and address of school attended last year:

Schedule of Classes

Lock No._____

Locker No._____

Name_____ Home Room No._____ Teacher_____

1st Semester				2nd Semester			
Period	Subject	Room	Teacher	Period	Subject	Room	Teacher
1				1			
2				2			
3				3			
4				4			
5				5			
6				6			

Parent or Guardian Address Name Telephone Number

SOUTHERN STATE COLLEGE
Magnolia, Arkansas 71753
Telephone 234-5120, Ext. 298

ANN K. THOMAS
Counselor and Director
of Institutional Testing

Dear

This is to remind you of Group Meeting

in A-16 today from _____.

We Need YOU!

Mrs. Thomas

APPENDIX E

ANALYSIS OF RATINGS FOR HAGGERTY-OLSON-WICKMAN BEHAVIOR SCALES: INCOMPLETE SETS, RATERS NOT IDENTIFIED

APPENDIX E

ANALYSIS OF RATINGS FOR HAGGERTY-OLSON-WICKMAN BEHAVIOR SCALES: INCOMPLETE SETS, RATERS NOT IDENTIFIED[4]

	Ratings	K	Sum
Pupil 1	14 16 17	3	47
.			
.			
.			
.			
Pupil 106	07 06 13 16 19	5	61
	Sums	308	4163

Sum of squared Ratings	206015.00
Sum of products (pupil sum times pupil mean)	62801.70
Product of sum and mean	56268.08

Sum of Squares

For total	206015. - 56268.0812	=	149746.92
For pupils	62801.70 - 56268.0812	=	6533.62
For error	149746.92 - 6533.62	=	143213.30

Mean Square

For pupils	6533.62 ÷ 105	=	62.2250
For error	143213.30 ÷ 202	=	708.9767

Average value of K = 2.9015

Reliability $$\frac{62.2250 - 708.9767}{62.2250 + (2.9015-1)\ (708.9767)} =$$

$$\frac{-646.7517}{1410.3442} = 0.4586$$

[4] Ebel, R.L., "Estimation of the Reliability of Ratings," Psychometrika, 16 (1951), 407-422.

APPENDIX F

HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCALE

(abbreviated form)

HAGGERTY-OLSON-WICKMAN BEHAVIOR

RATING SCALE

Teacher Observation
(abbreviated form)

Directions: Circle ONE observation for each question, one through eight.

Scoring weights:

A = 0 B = 1 C = 2 D = 3 E = 4

Total score range per scale: 0 - 32.

HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCALE
Teacher Observation
(abbreviated form)

RATING SCALE ON_____

	A	B	C	D	E
1.	Is he abstracted or wide awake?				
	Continually absorbed in	Frequently becomes	Usually present-	Wide awake	Keenly alive and alert
2.	Is his attention sustained?				
	Jumps from one thing to another	Difficult to keep at task till completed	Attends adequately	Absorbed in what he does	Able to hold attention for long periods
3.	Is he slow or quick in thinking?				
	Extremely slow	Sluggish, plodding	Thinks with ordinary speed	Agile-minded	Exceedingly rapid
4.	Is he mentally lazy or active?				
	Lazy and inert	Lethargic, idles along	Ordinarily active	Eager	Shows much activity
5.	Is he indifferent or does he take interest in things?				
	Indifferent, unconcerned	Rarely interested	Displays usual curiosity and interest	Interests easily aroused	Consuming interest in everything
6.	How does he accept authority?				
	Defiant	Critical of authority	Ordinarily obedient	Respectful, compliant	Accepts authority very well
7.	How flexible is he?				
	Stubbord, nonconformist	Slow to accept authority or methods	Conforms willingly as necessity arises	Quick to accept new methods	Very flexible
8.	Does he give in to others or does he assert himself?				
	Never asserts self, servile	Generally yields	Holds his own, yields when necessary	Assertive	Politely assertive

SOUTHERN STATE COLLEGE
Magnolia, Arkansas 71753
Telephone 234-5120, Ext. 298

ANN K. THOMAS
Counselor and Director
of Institutional Testing

May 14, 1974

Dear Hope Faculty:

Thank you for your cooperation in my research this semester. I hope the final results will be of benefit to your school as well as to other students.

As a last request, will you circle one response for each of the eight questions for the 10th and 11th grade male students you have in any class? I appreciate the extra effort any paper work requires at the end of school, but this is one vital part of my research design.

Again thank you for your cooperation!

Ann

APPENDIX G

COUNSELING SESSION ACTIVITY SAMPLES

Counseling Session Activity Samples

Session	Activity	Source*
1	"Able"--"Ing" name tags	A, p. 50-52. C, p. 3, Vol. 1
2	Identifying Personal strengths	A, p. 54-56 B, No. 3
3	Non-verbal communication of feelings	A, p. 57-59
4	Development of group expression	B, No. 5
5	Role playing	B, No. 4
6	Broken squares	A, p. 61-63 B, No. 6 C, p. 25-27
7	Top dog	A, p. 64-68
8	Positive and negative feedback	B, No. 7
9	Poor me	A, p. 75-76
10	Communication "Sounds of Silence" by Simon Garfunkel	A, p. 78-80
11	Lost on the moon	A, p. 84-90
12	Trust walk	A, p. 97-100
13	Objectives	B, No. 2
14-18	30 minutes of video tape playback of the preceeding session and then discussion	

*Source:

[A]Glen W. Krazow, "Peer Group Counseling Project in Special Education District No. 70, Libertyville, Illinois," Peer Counseling Handbook, Illinois: ARW Graphics, March 1973.

[B]Michigan State University Sensitivity Training Exercises for 882-816 C.

[C]J. William Pfeiffer and John E. Jones, A Handbook of Structured Experiences for Human Relations Training, University Associates, La Jolla, California, I-IV, 1974.

Three handouts were given to the students the first session. The handouts were referred to throughout the eighteen weeks. The papers were

(1) "Introduction to Personal Growth Groups," by Martin and Shewmaker, Group Psychotherapy, Vol. 15, March 1962, No. b, pp. 24-29,

(2) "Ground Rules for Personal Growth Groups," by Genlin, mimeograph paper, University of Chicago, 1968 and,

(3) "Constructive Openness," by John L. Wallen, Ph.D., 1967.

Two examples of the materials issued to the counselors each week follow. The activities were adopted to ensure session structure and counselor consistency.

Meeting 2

We appreciate the cooperation of Dr. John Suehr, Department of Higher Education and Administration, Michigan State University in making this exercise available.

Bob B. Winborn
William C. Hinds
Norman R. Stewart
Department of Counseling and Educational Psychology
Michigan State University

882-816C
Sensitivity Training Exercise #3

Title: Strengths and Weaknesses

Purpose: This exercise is designed to assist students to increase their present awareness and sensitivity to the feelings of others.

Objective: Given a list of strengths and weaknesses prepared by members of a personal development group, each student will correctly assoicate at least three of the other members of the group with specific strengths and weaknesses they prepared.

Directions:
1. List five strengths and five weaknesses below the dotted line on this page.
2. Give the bottom of this page to the group leader. Do not discuss your list with other group members.
3. The group leader will then read the lists to the group. You are to copy them on the worksheet that is provided.
4. After copying the strengths and weaknesses of the group members, identify the members whom you believe wrote specific lists.
5. Now, write the reasons why you identified individual members with specific lists of strengths and weaknesses.
6. When all have finished, the leader will read the lists and identify the students who wrote them.
7. Now, discuss this exercise in your group.

(Tear along the dotted line, fold, and give to the group leader)

Name_____

What are my strengths? (Try to describe in one or two words)	What are my weaknesses?
1.	1.
2.	2.
3.	3.
4.	4.

Name__________________________

Place the number of correctly identified persons in this box ____

____

Worksheet for Sensitivity Exercise #3

Strengths	Weaknesses	Name of Person	Reasons for Identification
1.	1.		
2.	2.		
3.	3.		
4.	4.		
5.	5.		
1.	1.		
2.	2.		
3.	3.		
4.	4.		
5.	5.		
1.	1.		
2.	2.		
3.	3.		
4.	4.		
5.	5.		
1.	1.		
2.	2.		
3.	3.		
4.	4.		
5.	5.		
1.	1.		
2.	2.		
3.	3.		
4.	4.		
5.	5.		

MEETING 7

Purpose of Meeting: For indivduals to experience and identify feelings in the group. Members will see more clearly where they fit into the group constellation. Self-disclosure and a supportive atmosphere (cooperation and good feelings) are to be encouraged.

Expected Outcome: Group members will gain experience in making critical decisions within the group, will experience feelings of being accepted and of being rejected and will have an opportunity to identify these feelings with similar experiences in school, and at home.

Materials Used: Top Dog Worksheets
Under Dog Worksheets
Pencils

Meeting Plan:

ACTIVITY	DESCRIPTION
1. Warm-up: Ocean Liner Fantasy	The leader encourages the members to sit in a close circle or on a rug. The members are asked to close their eyes for a while. The leader describes an ocean voyage (the sky, sea gulls, the blue rolling waters). The group is asked to imagine that they are on this trip and may open their eyes. The leader may begin to rock as the ship does and encourage group members to do the same. Encourage free body movement and uniformity of rocking in the group. After the group is warmed up, the leader can introduce the "Life Boat Exercise"
2. Life Boat Exercise	The leader will introduce this exercise in order to examine the group's constellation and decision-making process. Procedure: Engage the group in fantasy. "You are on an ocean liner that is slowly sinking. A rescue ship has heard your S.O.S.

and it will be coming to your aid in four hours. There is one lifeboat available, but it will only hold three people. The rest of you have to stay with the sinking ship or jump overboard, but there may be sharks in the area. The group has 15 minutes to decide who goes and who stays."

Stop the exercise after 15 minutes and have the group do a Top Dog-Under Dog.

3. Top Dog-Under Dog

See pages 234-235.

Procedure: Ask each member to think of one or two other members who made them feel good and why. Each member takes his turn in the group to share his feelings.

TOP DOG - UNDER DOG

Purpose: To encourage self-examination and self-disclosure.

Suggested Time: 15 minutes.

Procedure: After distributing material, give a brief lecturette on being "Top Dog" and "Under Dog." Have group members fill out "Times When I'm a Top Dog" and "Times When I'm An Under Dog."

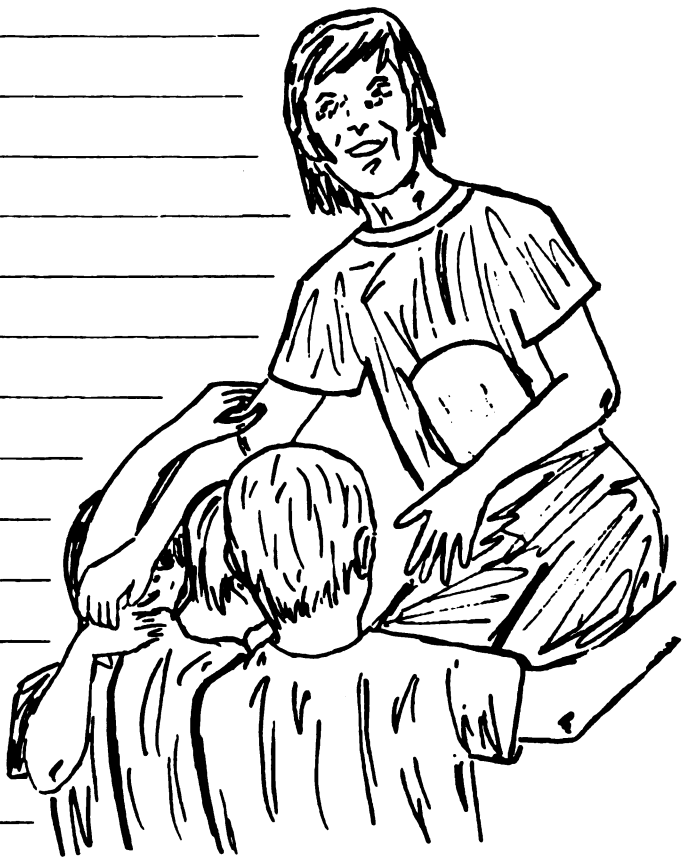
Have group members discuss what they wrote. Ask how they felt during the "Life Boat Exercise."

Materials: "Top Dog - Under Dog" Worksheets (2 pages)

Times when I'm a TOP DOG

Write as much as you can about times when you act as a TOP DOG. In writing, tell about the following:

a. Who you were with
b. What you did
c. How you felt acting as a TOP DOG



Times when I'm an UNDER DOG

Write as much as you can about times when you act as an UNDER DOG. In writing, tell about the following:

a. Who you were with
b. What you did
c. How you felt acting as an UNDER DOG