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THE INFLUENCE OF RACE AND SEX UPON A COUNSELING INTERVIEW DESIGNED TO INCREASE NEED FOR ACHIEVEMENT IN UPWARD BOUND STUDENTS

DISSertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

John A. Valley, M.A., M.A.

* * * * *

The Ohio State University

1975

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The people in the Summary Table below have proven to be influential not only in the main effect that each has had upon the accomplishment of this work, but also in their interaction with the Context n Affiliation that writing a dissertation invariably produces. This interaction, better known as loving friendship, will not be reported in the table but will always be cherished for what it has proven to be, a truly significant experience.

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I am convinced that the American people will come to regard the establishment of programs for young people from low-income backgrounds and social isolation as one of the most important developments in the history of American education. No single issue has so fully challenged the imagination, skills and efforts of scholars and laymen alike as the search for bold and innovative ways of motivating and teaching a segment of the population, who by the accident of circumstance, has not been able to fully share or participate in the richness of America . . . I invite concerned citizens to consider the opportunities for meeting the goals that are presented in this Program Manual and to make, through their proposals and efforts, our aspirations a reality. (Spearman, Upward Bound Manual, 1972)

It is surprising, considering the long span of the history of the world and the prevalence of pluralistic societies, how little is known about the ways minority and majority communities can live together harmoniously and with respect for the autonomy of each other's cultures. Until recently, relatively few scholars in the United States have investigated this question; the nation had been settled by so many diverse ethnic groups that America had become known worldwide as a melting pot of peoples. Then in the 1960's the nation experienced the Civil Rights Movement, a kind of cultural revolution which has challenged not only particular groups of people and social institutions but society itself for creating and sustaining barriers based upon race and sex. Few, if any, segments of our institutional structure have escaped the accusation of irresponsibility; even the American Churches, in 1969, were issued a manifesto by the National Black Economic Conference demanding 500 million dollars in "repairs" (Toppin, 1974). Alan Pifer (1974), the President of the Carnegie Corporation, believes the minority question has become a problem of such gravity that the search for its solution will be one of our major preoccupations for the balance of this century, with respect to not only the Blacks, but to other minorities as well.

Perhaps the institution which has been most associated with civil wrongs, as well as with ways of righting them, has been the
Passow (1968) has pointed out that the schools often are the first point of contact with the broader society for children of minority subcultures. Linguists like Labov (1970) claim that Black children are confronted at this juncture with speech patterns foreign to their dialect, which he calls Black English Vernacular. As a result, he argues, their academic progress is retarded by Standard English, their intelligence is underestimated by standardized tests, and finally, their motivation to do well in school functions at only minimal levels. The concepts of education for the disadvantaged and equal opportunity for education have also been questioned. In challenging Coleman's (1966) definition of "disadvantaged" and his concomitant call for "equality of educational opportunity," Stodolsky and Lesser (1967) have produced evidence that learning patterns vary along cultural lines, and argue that for the schools to promote the equal development of all groups and individuals is not enough; rather, equal opportunities for the maximum development of each group or individual must be provided. Rist (1970) made a longitudinal study of a grade school class of ghetto children and reported that children were placed into reading groups that reflected the socioeconomic class composition of the class rather than the measured reading ability. He also offered as support for his self-fulfilling prophecy hypothesis the observation that the way the teacher behaved toward the different groups became an important influence on the children's achievement. In a more conciliatory vein, Valentine (1971) suggests that the policies and programs of American education have been based on inadequate constructs of the Afro-American culture. He rejects not only the biological and cultural deficit models, but also presents arguments against the more recent cultural difference and culture-of-poverty models. In their place, as a result of an ongoing field study and his own previous research in this area, Valentine proposes a bicultural educational model, based on his observation that many Blacks are simultaneously committed to both Black culture and mainstream culture, and his belief that the two are not mutually exclusive.

In recent years, the Federal Government has taken action to alter educational patterns in order that the merits of a multicultural mix might be studied. Congress passed the Civil Rights Act (1964) making desegregation mandatory, and formulated a remedy for denial of equal educational opportunity in the controversial "Busing Bill" (U.S. Congress, House, 1974). An often stated rationale for busing has been that the interaction of different subcultures in schools would be more beneficial for the education and socialization of students from minority cultures than practices of neighborhood school attendance which tended to isolate groups from one another. The National Science Foundation (1974) has sponsored new programs to offer financial support to students from minority groups. Furthermore, it has established a policy of greater self-reliance on the part of students who exhibit potential for independent study. It has adopted a "... 'hands on' problem-solving approach designed
to appeal to the broader group of students whose orientation is more toward the 'practical' than toward the 'theoretical' . . . and has incorporated a " . . . self paced, self-directed study in interdisciplinary as well as traditional discipline areas, to place more responsibility on the student for his own 'learning,' rather than on the facility for 'teaching' . . . " (NSF, 1974, p. 1).

Another attempt to bring the minorities and the majority together was the Conference on Achievement by Minority Americans initiated by the Developmental Behavioral Sciences Study Section, Division of Research Grants, National Institute of Health. The Study Section was concerned over its inability to assist in promoting research responsive to the needs of economically deprived citizens, and was discouraged both by the lack of proposals received for review and by the lack of firsthand knowledge on the part of the members as to what sorts of endeavors might render results of importance to various minority groups in the nation. One of its members, Harry Crockett (1973), proposed that "achievement" be the topic of the conference on the grounds that:

... "achievement" was among the most basic of "traditional" American values; that achievement now was defined and researched from the standpoint of the white, middle class population; and that the research community should strive to remove from its literature this parochial "white middle class" bias in its studies." (Crockett & Schulman, 1973, p. 2)

Work groups were planned to discuss: 1) emerging definitions of achievement, 2) current knowledge regarding achievement, including trends through time for various groups, 3) determinants of achievement among children and adolescents and adults, 4) potential differences in achievement associated with familial variations among diverse groups, and 5) action-intervention programs trying to affect achievement. Conference participants included professional researchers on achievement as well as nonprofessional members of various communities who could understand and express the needs and demands of minority groups. No prepared papers were read; the conference was planned to be an intensive interaction between researchers and community members over a two-day period. Participants initially engaged in "sparring" over whether the professional and nonprofessional members in attendance really wished to communicate with each other. When they finally entered into a discussion, three themes emerged: 1) intergroup mistrust and antagonism, 2) relevance of research and accountability of researchers, and 3) adequacy of Federal Research Funding Procedures. General agreement was achieved on two matters: first, that research on achievement take into account the distribution of opportunities among persons or groups studied; second, "aesthetic-expressive"
modes of achievement, in contrast to the practical, work-oriented
trends now dominant, may be emerging among both minority and
majority Americans. No one was able to be explicit about the content
of such an ethic, but participants seemed to agree something on
this order was occurring. The overall conclusion of the conference
was optimistic.

The gap between the overwhelmingly white research
establishment and the rest of the Nation—and most
especially, the non-white citizenry—is enormous.
Yet, this gap is not unbridgeable . . . (Crockett &
Schulman, 1973, p. 8)

Exhortation admonishing educators to produce data to bridge
this gap has not been lacking. Robert Greer (1973), speaking for
the North Central Association of Secondary Schools and Colleges,
predicted that integrated education, not just de jure but de facto,
would be "the moral imperative for the Seventies" (p. 275). The
role of an accrediting agency, he asserted, was to provide the
evaluative techniques which would produce the data necessary to
revise the melting pot model and reconstruct a system that could
find its "... strength and prevailing purpose in racial and
cultural pluralism, a pluralism attended by a parity of power, a
pluralization that will not shatter itself by endless pluralizations"
(p. 279). He envisioned that a new perspective on educational pro­
cess must be developed for many diverse cultures to coexist
"... in dynamic but relatively harmonious tension" (p. 279).
He realized, however, that such a harmonious pluralism required
in-depth planning and research as evidenced by his closing admoni­
tion, taken from the Guidelines for the Evaluation of Multicultural,
Multiracial Education (1973):

Moreover, while education for pluralism should permeate
the entire school, a specific program design must be
developed to give direction and thrust to the effort.
To this effort, all sections of the school, and most
especially student-staff interaction, must be dedicated.
(p. 279)

In response to Greer's exhortation, the North Central Association
Committee on Students with College Aptitude from Disadvantaged
Environments (SCADE) published (Oliver, 1974) a very limited survey
of program objectives, practices, outcomes and probable future
directions among 175 institutions representing approximately 5
colleges and 5 high schools from each of the NCA's 19 member states.
These programs, most of them federally funded, had been set up
in the late 1960's to identify and assist students from minority,
low-income groups having economic, educational or motivational
problems that might lessen their chances for success in college.
The objectives, in most cases, were worded in statements of a
very general order, implying that specific behavioral objectives
had not been established. However, the similarity between the primary objective of the Secondary Schools and that of the colleges merits consideration:

**Secondary School Objective**

1. To offer adequate guidance and counseling services to help each student to determine goals and to make wise choices regarding college and career. (Oliver, 1974, p. 372)

**College Objective**

1. To supply adequate and effective supportive services such as orientation, individual counseling, financial aid, and special tutoring. (Oliver, 1974, p. 372)

The "what works best" section of the survey was more highly structured and gave slightly different results. Among the secondary schools, identification of students was the program area with the largest number of practices termed "effective" within the questionnaire, followed closely by counseling, curriculum, and home and parent contacts. The program area with the smallest number of practices termed "effective" was behavior and discipline, followed by orientation. Among the colleges, counseling ranked at the top in terms of practices in the "effective" portion of the questionnaire—by a wide margin. Orientation and adjustment ranked second; at the bottom were housing and behavior and discipline. The report also carried a special section on motivation because it ranked high on the list of "essentials for the educational program" section—but especially so in the special programs for students with college aptitude from disadvantaged environments. One school response deserves mention because it refers to the contract program which was used in the present research:

Motivational devices are used such as pacers, films, resource people for model development, but the greatest motivational practice is providing students with realistic goals and directing students to satisfying successful experiences. (Oliver, 1974, p. 376)

The most desperate need appeared to be in the area of outcome studies. Only one secondary school reported an extensive program of pre- and posttesting and analysis, and but three colleges indicated that thorough statistical analyses of student academic progress were completed or underway. The survey closes on a note of enthusiastic optimism:

... there emerges a strong expression of confidence in value and vitality of the programs, a deep conviction of their essential role in righting some historic
wrongs in American education, and an abiding faith in their future progress and contributions to society. (Oliver, 1974, p. 378)

It also recognizes that these are subjective opinions and are not as yet based on an experimental design.

The present research was undertaken to begin to gain some understanding of how minority and majority communities work together in a helping relationship. Since a help-oriented meeting place for members of both communities in the U.S. appears to be the educational setting, a school was selected as an appropriate place to study this phenomenon. Since a college education still seems to be regarded in the U.S. as useful in developing both self-esteem and position in the world of work, a short-term special educational program to help disadvantaged students prepare for college provided a research opportunity. The potential value of the study appeared to be even greater in the light of Oliver's (1974) observation that few research results have emerged from such special education program areas. Motivation or need for achievement was mentioned as a crucial variable in academic success, and offered a suitable criterion of helpfulness. An aspect of the educational program which provided an occasion for Blacks and Whites, males and females to interact for purposes of providing and obtaining help was short-term counseling which Oliver (1974) reported to be among not only the primary objectives but also one of the methods listed in the responses as most "effective" in the special educational programs surveyed.

All of these factors were brought together in a pre-post experimental design in which the effects of a counseling session aimed at initiating disadvantaged students in an Upward Bound Program to contract learning was studied. In order to investigate what influence the race and sex of the counselor might have in raising motivational tendencies, every effort was made by 6 Black and 6 White (3 male and 3 female of each race) counselors to exhibit the same levels of trustworthiness, expertness, and attractiveness in presenting the same contract approach to study skills and advising the counselee of its merits and use. To more adequately estimate the influence that the counseling interview might have on the experimental counselee, a control group, which received counseling after the posttest, and a comparison group which received no counseling but attended the same summer courses as the senior members of the Program, were utilized. In order to provide a set of criteria sensitive to several different motivational changes and to obviate the possibility of instrument bias, 23 different tests, comprising projective, objective and behavioral measures and intended principally to measure n Ach, n Power, and n Affiliation, were used. The experiment was implemented in a period of 48 hours at the very beginning of the summer program in an effort to reduce the effects of intervening variables and to provide a sound basis for a continued program of academic counseling throughout the summer.
As in every attempt at serious research, certain assumptions are made and should be stated. The first three are put succinctly by Smith (1971) in his Foreward to Baughman's Black Americans:

It is old-fashioned in its liberal assumptions--that clear thought and scientific evidence are "relevant" to the correction of social injustice; that one may respect and, selectively, use the research and scholarship of psychologists with whose conclusions one does not fully agree; that, indeed, a white psychologist can write significantly about blacks. (p. xii)

The fourth and last assumption was inspired by the article of Archibald and Chemers (1974) describing the "missionary syndrome." They conclude that warmth, concern, and good will without the ability to understand and accept other cultural role expectations can produce dissatisfied students. The final assumption of this study is that a better knowledge and understanding of a subject can be gained more readily when warmth, concern, and good will are accompanied by an openness to and desire for the truth.
CHAPTER 2

REVIEW OF THE LITERATURE

An interesting characteristic of the special educational program which provided the research opportunity for the present study was that the program itself resembled an experimental design. The criteria for selection of the "Target Group" were economic and academic, the Upward Bound Manual (Spearman, 1972) giving the following definition: "The . . . student, then, is a young person with academic potential constrained by his poverty background, and one for whom conventional education has had little relevance" (Spearman, Upward Bound Manual, 1972, p. 35). A mixture of races is required by a composition clause which states that compliance with Title IV of the Civil Rights Act of 1964 can be attributed only to those institutions that recruit both students and staff without regard to racial or ethnic origin. One of the 'treatments' is counseling, which was previously noted (Oliver, 1974) as necessary to the process of helping students adopt and effectively translate positive educational experiences. Finally,

The educational goals of . . . (this program) . . . are to help the student to develop critical thinking, effective expression, and positive attitudes toward learning. (Spearman Upward Bound Manual, 1972, p. 43)

Thus, a study using change in need for academic achievement as a criterion of the extent to which counselors of different sex and race affect cencees from lower socioeconomic backgrounds did not have to be imposed—the legislation establishing such programs needed only to be operationalized for the research design to emerge. To more fully appreciate the unique relationship the program brings into focus, however, a closer look must be taken at the literature concerning the factors it seeks to investigate. Sex and Race, the independent variables, will be treated first. Then the principal axis upon which they become factored into counselor and censeee, namely, counseling, will be reviewed, especially with regard to the phenomenological sets of counselor attractiveness, expertise, trustworthiness, and the counselor-client expectations that could influence the result of interaction. Since a single counseling interview provided the context for variable interaction, brief mention will be made concerning research on the effectiveness of a one-interview counseling contact. The outcome criteria coincide with the stated goals of the program, but the present research limits consideration
to the effects of the one-counseling session. Therefore, the literature will be examined for evidence that need for achievement can be influenced through counseling, and more specifically, for studies which include race and sex as factors in the influencing process. The last section will be a consideration of the rationale of the instruments used to measure need for achievement and its related variables of affiliation and power motivation. The research reviewed will be restricted to those studies which bear directly upon the program's design.

Race

The recent literature on race might be termed paradoxical. On the one hand, while the amount of literature on race has soared, the number of studies providing empirical evidence on the question has remained comparatively small. This lack of data, especially on the influence of race on counseling relationships, has created concern among psychologists like Bryson and Cody (1973) who note in their review of the literature on biracial counseling:

However, research reported on the effects of race on the therapist-client variable is meager. Moreover, little empirical evidence supports the assumption that race is related to level of understanding between counselor and client. (p. 495)

With the recent increase of Black students on predominantly White campuses, White counselors have been counseling Black students. It has been contended by some writers that traditional counseling programs have not adequately prepared White counselors for this "crossover" role. Vontress (1968) claims that because of racial and class differences the Black client regards the White counselor as an enemy. In addition, Vontress (1969) believes that ignorance of the client's background and language, and other preconceived racial attitudes interfere with effective counseling between a White counselor and Black client. Vontress further believes (1970) that the problem is compounded by social class differences between the White counselor and the Black client.

The situation is complicated by limited numbers of Black counselors and researchers. Greene and Winter (1970) have described the difficulties encountered by Black undergraduate students, and have suggested that the number of Black graduate students in departments of Guidance and Counseling and Psychology is inadequate to meet the need for Black counselors and researchers.

Most studies of racial attitudes in counseling have been analogue or remote controlled, that is, celluloid exposure rather than recorded interaction in a clinical, one-to-one setting. Stranges (1970), Barnes (1970), and Gamboa (1971) all presented
counselors on videotape to college students, senior high school
students and girls in a correctional institution and found that
race was a significant factor in the young Black's choice of
a counselor. Passons (1972) delineated the Black student's
preference further, discovering that race ranked a close third
to understanding and trustworthiness in the order of social distance
determinants. Gitter, Black and Mostofsky (1972) studied the
perception of emotion in terms of expressor and perceiver, using
color slides of five male and five female actors of each sex
expressing one of seven emotions. Significant main effects were
found for race of expressor (Whites were more accurately perceived),
and for race of perceiver (Blacks were more accurate perceivers).
It should be noted that the person showing the slides was always
of the subjects' race, an important factor according to some
studies (Katz, Henchy, & Allen, 1968; Katz, Roberts, & Robinson,

Related to this research on perception is the study of Bryson
and Cody (1973), done on level of understanding between counselor
and client and its relationship to race. The criterion used to
evaluate the counselor-counselee understanding was a judgment
made independently by three trained judges on the level of agreement
that existed between statements made by the counselor and the
client. These statements were obtained by interviewing each
client and each counselor in separate interviews or "recall sessions"
after the initial counseling interview. Two Black and two White
experienced counselors (3-10 years) used a training model by
Resnikoff, Kagan and Schauble (1970) to elicit an interpretation
of the ideas and intents communicated by the 32 students (equal
numbers of Blacks, Whites, males, females) in the counseling
sessions. Black counselors were found to understand Black coun­
selees best, White counselors were found to understand White
counselees best and overall, White counselors were found to under­
stand both White and Black counselees better than did the Black
counselors. In contrast to these findings, the race of the client
was not found to be an important variable, for White clients
understood Black counselors as well as they did White counselors,
and Black clients understood White counselors as well as they did
Black counselors. Their conclusion was: "Generalizations concerning
race and ability of counselors and clients to understand each
other should be made with caution" (Bryson & Cody, 1973, p. 498).

A study on clients' self-exploration and rapport is reported
by Banks (1972) involving 4 Black and 4 White counselors and 16
Black and 16 White clients. The counselors were divided into
high- and low-empathy groups. Social class of clients was also
assessed. Client depth of self-exploration judgments and rapport
ratings were employed. Racially similar pairings resulted in
greater client self-exploration but social class was not a significant
source of variance. A significant main effect was also obtained
for counselor empathy.
A more recent study is that of Grantham (1973), exploring the effects of counselor sex, race and language style on Black students in initial interviews. The subjects of this doctoral dissertation were 37 Black students in a special program for the disadvantaged in an eastern university. Counselor race and sex were the independent variables and the dependent variables were depth of self-exploration as measured by two independent raters and satisfaction with the interview as measured by a client outcome questionnaire. Two covariates were used in the analysis: the counselor's level of facilitative conditions (as judged by two Carkhuff-trained raters) and the counselor's score on a slang test measuring comprehension of nonstandard Black English. Black clients showed significantly greater satisfaction with Black counselors. In addition, female counselors elicited significantly more personally relevant material than their counterparts, irrespective of race. Interestingly, higher facilitative conditions on the part of Black counselors was associated with less client self-exploration, while a lower level of facilitative conditions on the part of White counselors elicited greater depth of client self-exploration. Comprehension of nonstandard English was not found to affect the results.

In 1967, Rosen, in a review of literature, concluded that interracial counseling was not sufficiently developed to warrant major generalizations. Three years later, Sattler (1970) reviewed literature indicating that Negro clients prefer Negro counselors; nevertheless, he pointed out that controlled investigations of interracial counseling and psychotherapy were only in beginning phases and warned against unwarranted generalizations. Five years later it appears that sex of the counselor may be a significant factor in biracial counseling relationships; beyond that, pronouncements on the state of knowledge in the area would appear to be unsupported by the literature.

Sex

Since the advent of the Women's Liberation Movement in the U.S., the importance of gender has been more widely considered in the analysis of variables in psychological research. Horner (1972), however, has collected studies, including her own TAT research on need to avoid success, indicating the continuing effects of the traditional concept of women's roles. She concludes:

Our data argue that, unfortunately, femininity and competitive achievement continue in American society, even today, to be viewed as two desirable but mutually exclusive ends ... ; the predominant message seems to be that most highly competent and otherwise achievement oriented young women, when faced with a conflict between their feminine image and expressing their
competencies or developing their abilities and interests, adjust their behaviors to their internalized role stereotypes. (p. 171)

While some writers (e.g., Robbins & Robbins, 1973) argue for a new vision of women's role in the modern world, others have viewed woman in her traditional role as exerting great influence, particularly in the disadvantaged home. Epps (1969) found evidence of high correlation (.46) between maternal motivating level and achievement orientation, supporting Bell's (1963, 1965) research which revealed parental and especially maternal motivation to be a significantly better predictor of high ambition than social class, with males being more affected by their mothers than females. Katz (1967) suggests that the mother of the disadvantaged child may raise the child's aspirational level but that orientation may not be realized because of her lack of education and experience in attaining academic goals. Perhaps it can be said, in summary, that no matter what role may be attributed to her, the female influence, at least in the home, seems to play a significant role in the determination of the motivational level of a disadvantaged youngster.

With respect to the effects of sex on counseling, Grantham (1973), as was previously noted, found that female counselors elicited significantly more personally relevant material than their male counterparts, irrespective of the race of either counselor or client. In a study (Jackson & Kirschner, 1973) on racial self-designation (Black students were asked to check whether they were Black, colored, Afro-American, or Negro) and preference for a counselor, a chi-square analysis comparing the groups showed that all tended to be uncertain about their preference for the sex of a counselor, with the Afro-American subgroup showing a slight preference for a same-sex counselor. However, research by Mims, Herron, and Wurtz (1970) analyzed client satisfaction responses of 16 Black junior high school students in two non-adjacent suburbs in Detroit where the Black students were a distinct minority. The data suggested that Black junior high school girls do not want a female counselor. Black males expressed a similar degree of unhappiness with Black male counselors and White female counselors. One limitation of the study was that female counselors were not a part of the counselor population. The investigators concluded that counselors of Black students do not have to be Black; rather, sex seemed to be a more important consideration than race. Another study previously mentioned (Barnes, 1970) studied the relationship between high school students' counselor preferences and the sex, race, and cultural background of counselors. The students (N = 180) saw videotaped counseling sessions of counselors of different race, sex and ethnic background. The results demonstrated that Black students preferred Black male counselors.
In three separate samplings involving three different projects, SEEK (Search for Education Exploration, and Knowledge) students were surveyed to determine their attitudes toward the importance of similarity of ethnic background of counselor and counselee (Beckner, 1970). The first survey, involving 115 students, revealed that 12.7 percent of the students endorsed a counselor of the same racial background as compared with 25.3 percent desiring counselors of the same sex.

Undergraduate students from Southeast Florida, consisting of 64 students (an equal number of Blacks, Whites, as well as males and females of each race) took part in three counseling sessions with "trained" and "untrained" (students enrolled in their first guidance course) counselors. One female and one male White and one female and one male Black counselor were assigned to each of the two counselor groups. Counseling sessions consisted of one 10-minute initial interview and two 30-minute sessions over a 2-week period. Counselees had less difficulty viewing the experienced counselors positively regardless of race or sex. However, counselors who differed from their counselees in sex and racial membership were less preferred. Black females chose Black male counselors first and Black females second. Black males preferred Black males first and then chose White males. White females chose White males first and White females second, the same preference as that of the White males.

With respect to facilitative conditions, Walker (1970) investigated the effect of client race on the empathic levels of 30 White male and female doctoral student counselors. They were divided into High and Low Empathic Counselors according to Carkhuff's 16 Client Stimulus Expressions, and each responded to one of two simulated counseling videotapes, one of a Black and one of a White client. The clients, six Black and six White girls who were matched according to sex, socioeconomic level and dress, role played, on 12 different tapes, problems typical of preadolescents. None of the responses of the "High Empathic" counselors reached significance but "Low Empathic" counselors responded significantly higher to Black clients and male counselors responded significantly higher to Black clients than did female counselors.

Finally, Johnson (1972) measured the Galvanic Skin Responses and social acceptability rating of 30 White male rehabilitation counselors by having them view videotape presentations of different pairings of both Black-White and male-female characters depicting three types of situations: 1) hostility, 2) affection, and 3) absence of affect. The subjects reacted to the affect being portrayed, then to the pairing of characters. Four of the pairings produced the greatest GSR responses and the lowest acceptability ratings in the following order: 1) Black male to White female, 2) White male to Black female, 3) White female to Black female, 4) White male to White female. The three following pairings showed the
lowest GSR ratings and the highest scores on social acceptability: 1) White male to White male, 2) Black female to Black female, and 3) Black male to Black female.

Counseling

Gordon (1970) sees counseling for the disadvantaged as being a practical guidance function that helps the young person to face the questions: "Who am I? What can I become? How can I become it?" (p. 10). Alschuler and Tabor (1970b) have given the name "Who Am I?" to one of their monographs on teaching and counseling for need achievement, and Gunnell (1974) believes that the self-concept and especially self-esteem have a great deal to do with academic success. Gordon sees the counselor as one who is involved in several kinds of activities:

- **Appraisal**, a qualitative rather than quantitative analysis of individual functioning and environment;
- **prescription**, the planning and design of appropriate learning experiences; **support**, for development and learning, psychological, social and material;
- **orientation and interpretation** with respect to a wide variety of kinds of information and values;
- **socialization**, the development of appreciation for what it takes to survive in the society; and also, as important if not more so, **politicalization**, learning how to get what one needs from the system; **pupil advocacy**, the protection of the best interests of the pupil; and finally, **counseling**, relative to role choice and implementation. (Gordon, 1970, p. 30)

Closely associated with the concept of prescription and design of learning experiences are several reports of the success of contract counseling; i.e., setting up specific behavioral objectives to be accomplished by the counselee. Thomas and Ezell (1973) conclude from their data that improvement of academic work results from contract counseling. Goldman (1972) found the contract method to be significantly more effective than a no-contract, lecture-tutorial method in teaching a study skills course comprised of both Black and White students. Rollins, McCandless, Thompson, and Brassell (1974) report a controlled experiment involving thirteen Black and three White inner city public school teachers trained to use positive reinforcement contingent on the fulfillment of negotiated goals. The sample consisted of 730 Afro-American disadvantaged pupils from the first through the eighth grades. Compared with matched control teachers and classes, these 16 teachers showed significantly (p < .05) higher incidence of positive reinforcement and lower incidence of punishment than the control teachers, and the experimental subjects gained more than did control subjects on both IQ and school achievement measures.
As previously indicated in the research on race as a factor in counseling, the perceptions of the counselor by the client may have an effect on the development of rapport and upon the eventual success or failure of the counseling interaction. The analogue studies of Strong and Schmidt have shown that interviewer expertness (1970a) can significantly influence subjects' ratings of need for achievement, but interviewer trustworthiness (1970b) produced equivocal results. Kaul and Schmidt (1971) presented videotaped excerpts representing combinations of trustworthy and untrustworthy content and manner in an interview, and asked undergraduate and graduate, male and female subjects to rate the interviewer's trustworthiness on an eight-point scale. Some were given a definition of trustworthiness and others were not. Analysis of the ratings showed that there were significant class and definitional effects, but no sex effect. In addition, the manner in which the interviewer acted tended to influence the ratings more than the content of his communication. Roll, Schmidt and Kaul (1972) followed up their research with trustworthy-untrustworthy, content-manner combination videotape presentations to convicts, half of whom were White and half of whom were Black. Again, half were given a definition and half were not. The data revealed no significant differences in ratings given by racial groups and no significant definition effect. However, there was a significant content-manner effect. It was tentatively concluded that a cultural consensus exists in the perception of trustworthiness and that it is more dependent upon nonverbal than on verbal interviewer behavior.

Schmidt and Strong (1971) defined the attractiveness of a person as being: "A function of another person's positive feelings about him, liking and admiration for him, desire to gain his approval, and desire to become more similar to him" (p. 348). Using ratings of need for achievement, they found that experimental subjects (those receiving an influence attempt) changed their ratings (p < .02) more than control subjects (those not receiving an influence attempt), but no attractiveness effect was obtained. It is interesting that attractive role subjects were less aware of the attempt to influence them than were unattractive role subjects, and suggests that perhaps the level of awareness or degree of tension may not be as high in an "attractive" session. Strong and Dixon (1971) investigated the relationship between expertness and attractiveness in determining counselor influence. One analogue study tested the hypothesis that attractiveness and expertise combined additively; another tested the hypothesis that expertise combined additively, and another tested the hypothesis that expertise masked attractiveness so that attractiveness would make no difference for experts, but would define an inexpert counselor's influence. The results, again in terms of n Ach ratings, significantly supported the masked hypothesis but not the additive one.
Since the present research centers upon the influence of an initial counseling interview, a review of the limited number of studies on the conduct and measurement of a solitary counseling session with a similar group of high school students seems relevant. Tierney and Herman (1973) determined that on a number of paper and pencil rating criteria, 10th, 11th, and 12th graders (the same grade levels tested in the present study) did not differ significantly in their self-estimate ability. Age, grade level, school program, sex, intelligence, and social class were used as the independent variables in administering the Kuder Preference Record, Work Values Inventory, Otis Gamma Quick Scoring Mental Ability Test, and Self-Estimate Questionnaire to 149 high school students. While there was considerable variability in the self-ratings, results indicated that none of the variables had any significant influence upon self-estimate accuracy.

Goldring (1969) investigated the effects that trained (T) and untrained (UT) counselors would have upon Negro adolescents in both formal and informal initial interviews. Eighty male, lower income Negroes (mean age 15.8) were seen for a brief beginning counseling session by 20 White, junior or senior, male university students. Half of the counselors were trained in six role-play, discussion sessions designed to challenge racial and cultural stereotypes, teach basic interview skills, and sensitize the interviewers to the emotional components of the interaction. The actual interview format included a rapport-building period, followed by eight open-ended and probing questions. Formality or informality of interview conditions was established by varying: the physical distance between interviewer and interviewee, types of chairs used, and the attire of the interviewer. All counselees completed Mood Adjective Checklists (MACLs) before and after the interview, and a measure of comfort (TCCS) was derived from this instrument. In addition, two-minute tape recorded segments of the interviews were rated by judges for four counseling process measures: Accurate Empathy, Respect, Genuineness, and Self-exploration. Since these were found to be highly intercorrelated, they were combined into a Total Facilitative Rating Score (TFRS). Results showed significant positive changes in TCCS scores for students interviewed by trained counselors, an elevation that was supported by a similarly significant rise in two of the 12 MACL subscales—Elation and Social Affection. There was no overall change in comfort as a function of formality-informality of conditions, but for two subscales (Fatigue and Elation) there was a significant increase in the Formal counseling session. In MACL subscales—Surgency, Elation, and Vigor—an interaction effect was found such that the trained counselors were superior in the Formal interview.

In regard to permanency and reliability of ratings, the work of Plug (1965), Tupes (1957), and Mayfield (1970) seem to indicate that, not only do ratings have a reliability over a long period
(.77 when administered 6 months and 18 months after), but that the ratings are highly correlated (.56) with eventual performance. Bausell and Magoon (1972) reported moderately high (.3 to .5) correlations between students' ratings of the instructor following the first day of class and during the final weeks of the course. Similar results were discovered by Wallace (1972) who surveyed the initial impressions that newly-inducted soldiers beginning training had formed toward their commanding officers, drill sergeants, and classroom teachers. Correlations between these ratings and the scores on the instrument administered 6 months later were all positive, ranging from .4 to .75. Thus, there seems to be some evidence that student ratings both of self and of instructor can demonstrate a relatively high reliability coefficient even, over an extended period of time.

Need for Achievement

Initially labeled by H. Murray (1938), need for achievement (n Ach) has been defined and extensively investigated by McClelland, Atkinson, and their students (McClelland et al., 1953; McClelland, 1965; Atkinson, 1958, 1964; Atkinson & Feather, 1966; McClelland & Winter, 1969). They defined motive as an expectation that a given action or kind of action will lead to a given affective result. It was assumed that such expectation must be learned. Thus, the motive in hunger is the learned expectation that eating will provide pleasant sensations of taste.

McClelland et al. (1953) assume that specific motives are organized into groups of related expectations in terms of the action involved or the kind of outcome. This organization or frame of reference is also learned, and there will be individual differences in the organization as well as in the specific expectations.

In these terms, need for achievement (n Achievement) is defined as the tendency to "perceive performance in terms of standards of excellence" (McClelland et al., 1953)--to develop a frame of reference grouping together activities which are evaluated--and to associate positive affect with doing well in this kind of performance. The achievement motive is the general tendency to consider activities as involving evaluation of the outcome on some scale of excellence, and the tendency to find success in this kind of performance as rewarding.

McClelland and Atkinson believe that the individual is unaware of his level of n Achievement. This is one of the primary reasons why both McClelland et al. (1953) and Atkinson (1958) used Murray's (1943) Thematic Apperception Test (TAT) to measure this motive. Their conviction is that the fantasies elicited by achievement-oriented pictures (a man showing students how to replace an engine)
can best be operationalized and then scored for n Achievement content in the story format the TAT offers. The basic assumption is that "... when a person interprets an ambiguous social situation he is apt to expose his own personality as much as the phenomenon to which he is attending ... to one with double hearing, however, he is disclosing certain inner tendencies and cathexes: wishes, fears and traces of past experiences" (Murray, 1938, quoted in Weiner, 1972, p. 172). Since a person will presumably be aware of wanting or not wanting to engage in a particular activity at a particular time, not being aware of the level of n Achievement means being unaware of the organization of various activities under the heading of "activities which involve standards of excellence" or not noticing that many or most of these activities have high valence. McClelland believes that the individual is unaware of these relationships because he learns the frame of reference and the expectation of pleasure for performance in this class of tasks before he can verbalize the relationships. Some limits to the degree of generality are stated by the McClelland-Atkinson group, and others are implied. Some of the limitations stated by Atkinson (1964, p. 241) are that the individual must consider himself responsible for the outcome, must have knowledge of results so that he knows when he has succeeded, and "there must be some degree of risk concerning the possibility of success."

It seems to be implied that need for achievement is independent of interest in the particular content. Need for achievement is expected to produce differences in arbitrary laboratory tasks such as tossing rings over a peg or solving arithmetic problems. McClelland seems to imply that taking economic risks is somehow more in keeping with need for achievement than are other kinds of excellence. On the other hand, n Achievement is supposed to show up in relatively artificial laboratory tasks where there is no economic reward, only knowledge that one has succeeded in putting the ring over the peg or in doing more anagrams than is considered standard.

Perhaps the outstanding critic of the McClelland-Atkinson point of view is Klinger. Klinger (1966) is of the opinion that all the evidence can be interpreted without the assumption that the TAT measures any motivational variable at all. He still assumes that there is an achievement motive, in the general McClelland-Atkinson sense of the term, since he speaks of individuals "who are frequently concerned with achievement" (p. 304). His argument

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1 Of course, the "real" achievement motive or motives may not fit the prescription of this group, but it is possible to ask whether there is such a motive as they describe and whether or not there are other motives in this area which they do not cover.
is that the fantasy shown in the TAT measure will be a function, not only of this personal characteristic, but also of prior experiences and the immediate situation, so that the individual without a strong need for achievement can be influenced to produce achievement themes.

Several summaries have been published bringing together separate investigations on the relation of need-achievement scores to such variables as performance in scholastic work, under- and overachievement in school, and choice of vocation. (See Atkinson, 1958; Atkinson & Feather, 1966; Klinger, 1966). The relationships are small, at best, and there are frequent instances in which no relationship is found. This is not surprising in view of the fact that actual scholastic performance is also a function of ability, specific interest, and other kinds of motivational variables. Negative results still occur even when there is an attempt to control for ability (e.g., Shaw, 1961), and there is the possibility that TAT scores are themselves correlated with intelligence or with verbal fluency.

Not only do other "projective tests" also predict success in academic or vocational endeavors, but there are even cases of prediction of n Ach from the "self-report" type of test which McClelland et al. (1953) do not consider a valid measure of n Achievement. In fact, at least one study found slightly better prediction of GPA from the self-report test of the Edwards Personal Preference Schedule than from the TAT measure (Weiss, Wertheimer, & Groesbeck, 1959). There are also negative results with the Edwards as with the TAT (e.g., see Bachman, 1964). Klinger's summary (1966) indicates that the projective measures predict more consistently for children and high school subjects than they do for college-age or adult subjects.

While it does seem that all of the measures of achievement motive are getting at something involved in scholastic performance and other kinds of "real-life" activities, it is clearly not an outstanding or infallible variable. Its practical value may be simply as one more measure to be added to a battery in the hope of improving the prediction from the composite.

Since 1960, McClelland and others at Harvard University have been conducting programs to increase the strength of achievement motivation and achievement-oriented behavior patterns. An experiment studying the process of motive acquisition was conducted with executives of a large American corporation (Aronoff & Litwin, 1971). Each of 11 middle-level executives who were given a program designed to develop and strengthen their need for achievement was matched with a comparable executive chosen to attend the corporation's executive development course during approximately the same period. In a two-year follow-up study, the participants in the achievement motivation training course had performed
significantly better than their matched pairs, as measured by major changes in job level and salary.

The McClelland-Atkinson group have also explored the raising of achievement among students in public schools.Burris (1958) found he could significantly improve the academic performance of underachieving college students by counseling them regarding their n Achievement score, as measured through a TAT test, and by teaching them something about imaginative thought sequences scored for n Achievement (McClelland, Atkinson, Clark & Lowell, 1953). The improvements in grades shown by this experimental group was significantly greater than that shown by an untreated control group or by a group who received nondirective counseling, regarding personal problems. Kolb (1965) improved the academic performance of underachieving high school boys by teaching them about the nature of achievement motivation, including the procedures used for n Achievement in imaginative stories, and by allowing them to practice achievement-oriented behavior in structured game situations.

Another example of the result of achievement motivation training in schools is the work by deCharms et al. (1969a) in St. Louis. They introduced achievement motivation training for over 150 Black disadvantaged pupils in the sixth grade on a fairly large scale. At the end of the year, control children who had not received the training averaged one grade level less than their age norm on the Iowa Test of Basic Academic Skills. The comparable children who had received motivation training averaged one-half a grade level below their age norm. That is, by practicing some simple motivational exercises which the teachers had been trained to introduce (see deCharms, 1969b), the disadvantaged children had scored about half a grade level higher in academic skills after achievement motivation training than those who had not received the training. This result is encouraging, especially in view of the Millfield Study (Baughman & Dahlstrom, 1968), which showed that relatively bright Black children, in contrast to Black children of lower IQ (< 100), show an overall scholastic performance below that of White children of comparable age and ability. McClelland and Winter (1969) suggest that educational procedures designed to increase motivation may help bridge this gap. Two of the major educational emphases recommended merit mention because of their implementation in the present research; the first McClelland speaks of as the "achievement syndrome," in which, he states:

... our goal is very simply to teach the participants what we have learned about how a person with high n Achievement thinks, talks and acts and why having a high need to achieve is relevant to, let us say, entrepreneurial success. To understand the thought patterns, they learn the coding system for n Achievement and eventually learn to produce easily and
spontaneously stories that score high in n Achievement. They also practice the action characteristics of people with high n Achievement, such as choosing moderately difficult tasks in certain game situations, as in deciding how far to stand from a peg in ring toss . . . (McClelland, 1969, p. 11)

The second appears to tie in with the behavioral objective approach of contract counseling and is termed "goal setting." In management seminars conducted for executives, McClelland goes on to say:

They are also taught how to set realistic goals for themselves in terms of the weeks and months ahead. Most people begin with very vague goals, but the training procedures force them to set quite specific time-limited goals and invent measures of progress so that they will know afterwards the extent to which they are achieving them. Thus, they normally end the training with certain commitments for the days ahead and with concrete ways of knowing whether or not they are fulfilling these commitments. (McClelland, 1969, p. 11)

Although the earliest samples selected for research on n Ach and validation of the construct were almost exclusively White college students, particularly White college males, Gurin and Epps (1966) extended the research to Negro college youth. Since then Veroff et al. (1971a) have done extensive surveys in the Detroit area and factor analyzed n Ach into several dimensions. For the White males in the survey, power was the variable that seemed to account for various achievement behaviors, but for Black males, it was whether or not they had a task orientation to achievement, along with the power variable. For White females, it was an autonomy dimension, whereas, for Black females it was the power variable. They concluded that there is a need to differentiate assessment procedures in different groups. Gunnell (1974) agrees that in research on Blacks, no global source of motivation will be found, but rather that small group factors and a multimotivational model holds the key for discovering the influences on n Ach in Black students. Finally, for those who are trying to raise n Ach through counseling, McGuire and Noble (1973) suggest that academic encouragement elicits a favorable response from low-achieving college males.

**Criterion Variables**

In a monograph criticizing racial discrimination in testing, Samuda (1973) enumerated six different responses that psychometricians are making in the face of the continued attacks upon their instruments of objective measurement. Samuda proposes an alternative
which describes the selection of criteria for this present study.
The tests and their items were chosen for their flexibility,
openness, and noncompetitive, nonjudgmental face validity. In
fitting the measures to the sample, as Samuda puts it:

\[\ldots\] test procedures would be directed towards the
broadening of the varieties of competencies and skills,
not merely through objective item-types, but additionally,
through open-ended probes designed to incorporate
atypical patterns and varieties of learning. Such a
trend also seeks to incorporate the work of David
McClelland within the corpus of psychometric technology
by stressing measures of ego development and motivation
which depend upon operant (or free associative) thought
patterns in assessing nonacademic learning such as
social competence, coping skills, political and
avocational skills. (p. 12)

Gunnell (1974), though taking the stand of the Association
of Black Psychologists (Larry P. et al. vs. Wilson Riles et al.,
1972) against standardized tests such as the ACT, SAT, ATGSB,
and several employment examinations, does believe that some
sociopsychological tests may provide data that can be factor-
analyzed for the calculation of Black norms. The type of test
he advocates is one that allows the respondent "to come out with
whatever you want to, with the way you feel, rather than having
to meet an expectancy" (Gunnell, 1974).

In an attempt to offer the students involved the fullest
range of modes in which to express themselves, many different
measures were used in the present research. Though diverse in
their formats and in the constructs they measure, they can generically
be categorized into three basic test types: 1) projective
techniques, 2) objective tests, and 3) behavioral measures.

**Projective Techniques**

Since the TAT’s validity and reliability have often been a
cause for discussion, a special section on this issue will follow
an introduction and description of the two TAT forms utilized,
the pictorial and verbal.

1. **Exercise in Imagination.** The Exercise is a set of pictorial
thematic apperception tests with Black and White figures. These
focused projective "desire to move ahead to the ultimate goal"
(Atkinson, 1958, p. 722). Detailed scoring manuals for replies
to such pictures have been developed (McClelland et al., 1953;

Murray’s *Manual of Thematic Apperception Test* (1943) gives
the basic philosophy behind the scoring of the needs that he and
his collaborators had discovered in their *Explorations in Personality* (Murray et al., 1938). Aron (1949), one of his students, simplified the scoring procedures into several basic steps: 1) each individual or object to whom variables are attributed is described by an abbreviated notation, 2) the hero or subject of the need is identified, 3) the variables--such as need for achievement, affiliation, and power--are noted and the behavior or fantasies of the subject are analyzed in terms of these need variables, 4) note is taken of the manner in which a variable is expressed when that variable describes a trend other than the positive, acceptable activity with which the subject is directly identified, 5) each variable within the main story content is assigned a numerical value to indicate the intensity with which, it is expressed, and 6) the outcome of the story, or outcomes of the various episodes of the story, is recorded. McClelland, Atkinson, Clark and Lowell (in Atkinson, 1958) present a manual for scoring the achievement motive or n Ach alone, stipulating that the first step the scorer must take is to decide whether or not the story contains any reference to an achievement goal which would justify scoring the subcategories of Need, Instrumental Activity, and Positive Affective State. They define achievement goal as "... success in competition with some standard of excellence" (Atkinson, 1958, p. 181). Even though the individual may fail to accomplish the goal, if concern is expressed in the story over competing for it, an identification of the goal as one of achievement may be made.

Affiliation Imagery (AFF IM) is scored when the story manifests some evidence of concern in one or more of the characters over establishing, maintaining, or restoring a positive affective relationship with another person. This relationship is most adequately described by the word friendship (Atkinson, 1958, p. 205).

In order for the overall code of Power Imagery (POW IM) to be scored, there has to be some reference to the thoughts, feelings, and actions of one of the characters in a story which indicates that the character is concerned with the control of the means of influencing the person (Atkinson, 1958, p. 220).

In the 1958 (Atkinson) Manual, the point system used in scoring the Achievement motive states:

To compute the n Achievement score, give +1 for Achievement Imagery (AI), 0 for Doubtful or Task Imagery (TI), and -1 for Unrelated Imagery (UI). Subcategories can be secured only if AI has been scored. Each subcategory scored counts +1. Since each category may be scored only once, the maximal score possible for a single story would be +11 ... The n Achievement score for a particular person is the sum of the scores obtained on all of the stories written by
that person. N Achievement scores on different persons are only comparable when the scores are obtained from the same pictures. (Atkinson, 1958, p. 202)

Similar manuals for scoring n Affiliation and n Power, established by Heyns, Veroff, and Atkinson (1958), and Veroff (1955) respectively, show that the basic scoring criterion both for content and point computation applies to these variables as well.

2. Exercise of Insight. This verbal form of the TAT is also known as the French Test of Insight. As TAT research has developed, the TAT picture protocol measure of n Achievement has become accepted by the McClelland-Atkinson group as the preferred measure of n Achievement and is generally referred to as the TAT, but sometimes they use other forms of projective measures which they consider equivalent. The French Test (French, 1958) is a projective technique that has been considered equivalent in that it is a projective measure based upon the same general procedures as the TAT, but there is little evidence that it yields equivalent scores. In fact, it correlates about zero with the TAT measure (Himelstein, Eschenbach, & Carp, 1958; Shaw, 1961). In Himelstein et al. (1958), however, French's Test produced a high interscorer reliability with McClelland's TAT. Like the TAT, the French Test has modest test-retest reliability; using alternate forms and keeping males and females separate, the r's ranged from -.02 to .70. However, none of the r's for the alternate forms were significant (Himelstein & Kimbrough, 1960). Yet Atkinson and Litwin (1960) speak of the French Test as "a very similar projective instrument" (similar to the TAT) and also of "these particular measures of n Achievement" as though they were equivalent tests. In another study, Atkinson, Bastian, Earl, and Litwin (1960) found that content analyses of responses on the French Test distinctly separated high n Ach subjects with strong approach to success motives from low n Ach players with strong motives to avoid failure, in a game of goal setting and imaginary betting equated for expected monetary value but differing in probability of winning. Heckhausen (1967) claims that Himelstein, Eschenbach, and Carp (1958) did not report on the testing conditions in detail and that the validation studies of French and Thomas (1958) and Atkinson and Litwin (1960) support hypothesized agreement between the French Test of Insight (FTI) and the TAT. Nevertheless, the fact that it does not always correlate highly with TAT may mean that it is measuring something different. It is quite possible that still other uncorrelated tests, even those based on self-report, will show similar relations to performance when more research has been done. In fact, there are some indications of this already (Atkinson & Litwin, 1960; Atkinson, 1958).

The format of the French Test of Insight consists of a brief description of behavior given by the examiner, for example: "Bill always lets the 'other fellow' win"; the subject is asked to explain
the motives behind such a behavior. These verbal cues have produced (French, 1955, 1956, and French & Chadwick, 1956) responses which are highly comparable to those obtained through TAT picture protocols. These findings have led Atkinson to make a practical generalization "... that cues will tend to be equivalent so long as they suggest vaguely the content area of the motive being measured but do not elicit strong or specific associations based on particular cultural or personal past association" (1958, p. 34).

3. Validity and reliability of the projective techniques.
   The coding reliability, i.e., the objectivity of the scoring key, seems to be satisfactory on all the motives (n Achievement, n Aff, n Power) in the TAT Exercise of Imagination, and Exercise of Insight--the French Test of Insight (FTI). Scorer agreements between .80 and .90 have been reported in many studies (Himelstein, Eschenbach, & Carp, 1958; Shaw, 1961; Atkinson & Litwin, 1960; McBer Motive Scoring Rates, 1972; May, 1966).

   The test-retest reliability, however, is less satisfactory. As far as the n Achievement measure is concerned, coefficients as low as .22 (McClelland, 1955) or .26 (Krumboltz & Farquhar, 1957) seem to be untrustworthy estimates, perhaps due to the shortness of the test (three pictures), the use of the same pictures which could have "spoiled" the subjects for the second test, cyclic satiation effects in fantasy productions (Reitman & Atkinson, 1958), or too weak a cue value of the original picture series. Despite previous findings, Haber and Alpert (1958) have found a more satisfactory correlation, .54 (with an interval of 3 weeks), with two parallel sets of six pictures each, the cue content of which had been carefully equated (see also Birney, 1959a, 1959). In longitudinal studies Kagan and Moss (1959) found a significant coefficient of stability for indices from age 8 years 9 months to 14 years 6 months, and Moss and Kagan (1961) found similar results over a period of 10 years from adolescence into adulthood (r = .31). In line with these findings are those reported by McClelland (1965b) showing that n Ach scores of college students predict life outcome over periods of 10 years or more. Those with low n Ach were found to gravitate to credit, traffic, personnel, or office managers; "83% of the entrepreneurs had been high in n Achievement 14 years earlier versus only 21% of the non-entrepreneurs" (p. 390). Himelstein and Kimbrough (1960) have reported similar test-retest reliabilities for the FTI measure.

Since the repetition of "projective" methods is subject to various unfavorable effects (cf. McClelland, 1958a; Reitman & Atkinson, 1958; Heckhausen, 1963b), it is possible that the reliability is underestimated rather than overestimated by current findings. The high sensitivity of thematic apperceptive methods to situational factors (e.g., status of the experimenter, Birney, 1958b; cf. Carney, 1964) validates them in one sense, although it has serious disadvantages psychometrically speaking. The
methods are presently not suitable for psychodiagnostic purposes, i.e., for individual diagnosis, although their degree of discrimination is considered sufficient for experimental research (Heckhausen, 1967).

Though apparently not closely related to self-report, the projective test seems to be related to task performance. High n Ach has been found to be generally associated with striving and performance on specified tasks (deCharms et al., in McClelland, 1955, p. 421). French and Thomas (1958) divided a selected group of highly intelligent subjects into those with high and low n Ach on the French Insight Test and required them to solve a difficult intellectual problem. The problem had several acceptable solutions. The high n Ach group worked, on the average, twice as long as the others before giving up, and were much more successful in arriving at at least one solution. In the high n Ach group, persistence and number of correct solutions correlated .36 with ability, but the correlation was zero in the low n Ach group.

Validation studies of the TAT and FTI have been in the form usually of tabulated significant correlations between motivational imagery and behavior or performance in task oriented experiments. McClelland (1966) claims that Skolnick's (1966) longitudinal research revealed: 1) that the number of such correlations is significantly greater than chance, though the research is largely confined to male subjects, 2) that ordinary subjects do not perceive people as having traits characteristic of their imagery types while clinical psychologists do, 3) the imagery generated is related more to operant actions in males and to respondent actions in females, 4) that adolescent imagery scores are greatly inferior to adult imagery scores in the number of significant relationships they generate, and 5) that adolescent activities predict adult imagery scores much better than adolescent imagery predicts adult activities, suggesting that imagery may be more the result than the cause of action. These findings consider fantasy as one type of behavior (e.g., thought) which is related to action (task accomplishment or performance).

Crosscultural studies with women from Brazil (Angelini, 1959), Japan (Hayashi & Habu, 1962), and Germany (Heckhausen, 1963) have not given cause for concluding that projective techniques are differentially valid for the two sexes. Heckhausen (1967), however, contends that the women tested in Brazil, Japan, and Germany constitute a selected minority whose achievement-oriented self-concept is closer to that of the male sex. Lesser, Krawitz, and Packard (1963) have measured the n Ach of under- and overachieving female college students of the same intelligence level under neutral and ego-involved arousal conditions. The overachieving college women showed the expected increase in n Ach scores only with TAT pictures depicting females, whereas the underachievers showed an increase in n Ach only to pictures of
males. It would appear from these results that the former consider achievement to be part of their female role, whereas the latter seem to consider this to be a male attribute.

In a study of lower class White and Black male juvenile delinquents matched for Mental Age (Megargee, 1966), the TAT, the Rosenzweig PF Study, and the Holtzman Inkblot Test, no differences were found on the TAT or PF scores but significant differences were discovered on 3 of the 22 HIT scores. These results were consistent with other studies matching Black and White subjects on IQ, but other studies which have not done so have reported more projective test differences. It was concluded that projective test differences should not be used to make inferences about basic racial personality structure unless careful matching on other variables has been carried out. Further research on interracial differences in projective test performance is needed using larger test batteries and larger samples of matched Black and White clients from settings more representative of general clinical practice.

Skolnick (1966) administered TAT protocols to 91 subjects, 44 men and 47 women, first in their adolescent years, and then as adults, in a 20-year longitudinal study. The measures were scored for achievement, affiliation, power and aggression imagery and these scores were then correlated with behavioral measures made at corresponding times. The results suggest that it is not possible to make generalized statements about the relation between TAT fantasy and performance behavior that will hold true over all motives, ages, and for both sexes, although the predominant relationship seems to be positive rather than negative. Results were clearest for achievement and power and measures of aggression-inhibition correlated directly with measures of overt aggression.

In an attempt to establish the construct validity of the TAT as a method of assessing adaptive ego functioning, Whiteley (1966) randomly selected a sample of 20 superior high school achievers and 20 underachievers. They were given individual TAT administrations of Cards 1, 4, 6BM, 14, and 7BM which were mechanically recorded and transcribed. The TAT heroes of the superior achievers were more adaptive in their handling of needs, more often accepted responsibility for their behavior, and were better able to control their impulses in handling conflict. A study by Hummel and Sprinthall (1966) of these same subjects, in an entirely different methodological framework, supports the general hypothesis that adaptive ego functioning is a significant dimension in determining achievement status, and more importantly, that the ego functioning of superior achievers is more adaptive. Finally, the records of the in-school, overt behavior by the underachievers show them, in agreement with the inferences from the TAT about their ego functioning, to be maladaptive more often than the superior achievers.
In a study of achievement motivation in Black female college students, the effects of characteristics of the figures on selected TAT cards used to assess n Ach were determined by independently varying sex and race of the stimulus figures. The subjects were divided into four groups and each group was given 1 of 4 types of pictures: Black female, Black male, White female, White male. Results indicated that for n Ach scores uncorrected for protocol length, both race and sex of the figures were significant. A measure of productivity and word count was affected by race of picture but not by sex. For n Ach scores corrected for length of protocol, only the sex variable was significant, that is, more n Ach motivation was expressed by Black females to male figures, irrespective of race, than to female figures. The highest scores were obtained in response to pictures of Black males for both productivity and n Ach measures, corrected and uncorrected.

Finally, Klinger (1968), the avowed chief critic of the validity and stability of the TAT, contends that since the same scores have been found repeatedly to respond to varied experimental manipulations (Klinger, 1966, 1968), they must be regarded as highly responsive to situational effects. He interprets the data as pinpointing individual testing conditions as one of these situations, and asserts that TAT n Ach lacks not only validity but also stability when administered individually. He does not, however, produce evidence that group administrations come under the same indictment. And he is forced to admit that his study involving 144 male college paid subjects, with the most stringent precautions taken to eliminate experimental bias, did lend at least minimal construct support to n Affiliation and that the results suggest that task performance was associated with individual differences in affiliative fantasy. He reasons that subjects high in n Affiliation were more responsive because of the demand characteristics of the experiment.

More relevant to the present study has been the work of Joseph Veroff and the team of psychologists in the Survey Research Center at the University of Michigan. In keeping with the assumption (Atkinson, 1964) that the achievement motive may not necessarily be a unitary concept, Veroff, Hubbard, and Marquis (1971a) used projective imagery as representing "... both a result of and a synthesis of many of the separate achievement components ... Thus, the achievement motivation score represents a composite of potential components of achievement orientation. Indeed, the success of the measure may depend on its being an undifferentiated potpourri of various achievement attitudes" (page 49). A sample of 1,027 households within the city of Detroit was contacted by six Black and eight White Survey Research Center (University of Michigan) interviewers. The interviews obtained from this sample...
were stratified into four equal groups by race and sex of respondent: 90 Black males, 96 Black females, 89 White males, and 90 White females. The age of the 365 people interviewed extended from ages 18 to 49. The task of story-telling in response to pictorial and verbal cues was placed near the beginning of the interview with a special fill-in-the-blank warm-up exercise preceding it, which was apparently successful, since only 1 percent of the 365 protocols were not codable compared to 15 percent in a 1960 national survey (Veroff et al., 1960). The first two projective items were based on the 4 pictures which produced the most interesting achievement responses in the 1960 national survey: a blue collar work scene showing "Two Men at a Machine" and a white collar work scene depicting a "Man at Desk" for men; a career setting and a homemaking setting for women. The third item, a verbal cue ("Ted/Joan never hesitates to give his/her opinion."), was meant to elicit power concerns, but was also intended as a warm-up for the fourth item. The last item ("After first term final exams, Phil/Jill finds himself/herself at the top of his/her class at medical school.") was the item most diagnostic of fear of success in women in Horner's research (1968). The picture items were presented in the following manner:

Another thing we want to find out is what people think of situations that come up in life. I'm going to show you some pictures of these situations and ask you to think of stories to go with them. The situations won't be clearly one thing or another, so feel free to think of any story you want to.

(The picture was shown.)

For example, here's the first picture. I'd like you to spend a few moments thinking of a story to go with it. To get at the story you're thinking of I'll ask you questions like: Who are these people? What do they want? and so on. Just answer anything that comes to mind. There are no right or wrong answers. (Veroff et al., 1971b, p. 3)

Then a verbatim recording was made of the responses to the following questions: 1) Who are these people? What are they doing? 2) What has led up to this? What went on before? 3) What do they want? How do they feel? 4) What will happen? How will it end? For the verbal, French Test of Insight type item, the following procedure was followed:

Now instead of showing you a picture, I'll describe someone, then ask you questions about why he acts that way. Statement: After first term final exams, Jill finds herself at the top of her class in medical school. (Veroff et al., 1971b, p. 5)
Then the responses to the following questions were recorded:
1) Why do you think she does this? 2) What does she want? How does she feel? 3) What will happen? How will it end?

The main purpose of the survey was to develop a resultant Achievement Orientation scale to be combined with a Multiple Measure of Intelligence as a predictor for years of education completed. The projective imagery was coded by the Atkinson (1958) system, and together with a risk-taking behavior component (Veroff et al., 1971a), was used as the criteria against which prospective survey measures were tested. A set of empirical scales derived from the data gathered from these questionnaires was developed, based on their clustering in factor analyses. Separate analyses were performed for sex-race groupings (White males, Black males, White females, Black females). The item "Ted/Joan never hesitates to give his/her opinion was rejected for two reasons: 1) its average correlation with the two of the other items, though positive, did not exceed .11, and 2) this item was not coded on the standard Atkinson (1958) 0-11 scale, but on an abbreviated 0-2 scale. The scores of the three remaining projective items were summed to form the projective criterion scale. Because previous research (Veroff et al., 1960) had found that the sheer length of response affects the amount of imagery elicited, an analysis of variance with response length as covariate was made. The results show length of response, interviewer race, and sex of respondent to have significant effects, all at the p = < .01 level. In spite of the fact that in previous research (Veroff et al., 1960) Black interviewers tended to provoke shorter stories in general, the respondents with Black interviewers had more achievement imagery, while women gave more achievement imagery than men. The correlations of the projective criteria with the amount of education of the interviewee were not significant: .14 with White males, .19 with Black males, -.04 with White females, and .15 with Black females. The projective criteria, however, were merged with 4 assessments of risk-taking behavior and 10 items derived from Power-Autonomy, Mastery, and Future Orientation Scales, and a 4-item Revised Anxiety scale was subtracted from the sum to form the Resultant Achievement Orientation scale. This composite scale, with which the projective criteria correlated significantly (< .05) only in the case of Black males, was found to be a significant independent predictor of education level for Black males and White females but not for Black females or White males. The inference made is that projective tests, though apparently not powerful enough to predict education level for various combinations of sex and race, become more capable of prediction when combined with other measures such as objective tests of motivation, in particular certain self-report responses and assessments of risk-taking behavior.
Objective Tests

1. Multidimensional Motivation Measure.

   a. Forced Choice Achievement, Triads, Personal Efficacy

Forced Choice, Motice Checklist. The Survey Research Center at
the University of Michigan has been engaged in methodological
investigation of measures of achievement motivation in national
surveys for many years (Veroff et al., 1960; Morgan & Smith,
1970). In conjunction with these efforts, Atkinson and Moulton
(1969) initiated the development of objective measures of motivation
for a heterogeneous population on a nationwide scale. Much
of the logic of the research was based on the Atkinson model
(1958) which hypothesized that achievement behavior can be multi-
dimensionally measured. Atkinson (1964) also questioned the
concept of a single achievement motive and suggested that two
different motives, the motive to succeed and the motive to avoid
failure, interact to produce a composite motive of achievement.
Since then, Atkinson factored Murray's (1938) n Ach into expectancies
and incentives; Veroff (1965) and Birch and Veroff (1966) justified
thinking about additional, dispositional expectancies; Horner (1968)
demonstrated the presence of a motive to avoid success, present
especially in women; Veroff (1969) also distinguished motivations
for autonomous standards of excellence from those of social accept-
ability; and Raynor (1969) suggested future orientation as a factor
in determining persistent achievement performance. As a result of
this evolution of motivational constructs, the research of Atkinson
and Moulton, which was continued by Veroff and colleagues, led them
to consider "... achievement motivation as an 'umbrella concept,'
embracing many distinct components" (Veroff et al., 1971a, p. 48).
In the process of investigating the nature and weighting of these
components of achievement motivation, Veroff et al. (1971b, 1971c,
1972) experimented with several new test items. Although these
various subtests had been gathered for a national survey from many
different sources, those chosen for inclusion in the present research
are for the sake of convenience called the "Veroff survey subtests."

In order to assist Morgan in determining whether methods for
measuring motivation in college students could be transferred to
a more heterogeneous household sample, Atkinson directed a household
survey in Jackson, Michigan (Jackson I Study) in 1968-69 (Veroff
et al., 1971a). The TAT was combined with open-ended and forced
alternative questions and administered in an interview format to
50 adults, half Black and half White, with an equal number of males
and females from each race. The sample was taken from a relatively
low socioeconomic area of Jackson. There was little internal
consistency within the set of items used, especially in the scale
of achievement motivation developed with college students by Atkinson
and Moulton (1969). When mean scores of the Jackson sample on
Atkinson and Moulton's objective scale were compared with the means
of a Flint college night school class, those of the Flint sample
were higher but the range of the Jackson adults was much wider.
In a follow-up study (Jackson II, reported in Veroff et al., 1971a), an attempt was made to isolate more systematically the components of achievement motivation and to discover what results intelligence measures might produce from the sample. Less abstract ways of wording items were tried, and these items were constructed to fit dimensions of achievement motivation that had appeared in the discussions of studies on other groups (Epps, 1969 on Black high school students; Gurin et al., 1969 on Black college students; Sommerfield, 1969 on job trainees; and Atkinson & Moulton, 1969 on college students). These different conceptualizations of achievement motivation were termed: future orientation, avoidance of social approval, social comparison for achievement, strong emphasis on autonomy, and preference for moderate risk. As in the Jackson I Study, there was little evidence to indicate that the various components were consistently related to each other. When the sample was divided by sex, however, the results for males of both races did replicate some of those obtained with Atkinson and Moulton's (1969) college male sample. Since the female results showed an opposite pattern, this male-female differential was studied on a larger sample. Again, it was found that the more specific, concrete references, e.g., as to a person's job, elicited a better response and correlated more highly with the TAT and performance tests like Digit Span, Digit Symbol, and Block Design Tasks.

Building on the evidence from the Jackson studies, Veroff et al. (1971c) used a matched-sample, quasi-experimental design to interview four groups of men at different stages in their job training program at Muskegon Area Skills Center: those just applying, those who had just entered, a group about to complete training, and another graduated group in the labor market for at least six months. The men were matched for program and age (between 18 and 45) but an attempt to match for race was unsuccessful because of an insufficient number of Black respondents. The part of the study most relevant to the present research was the set of test items used for the interview. These measures consisted of forced choice questions derived from the Jackson studies and separated into seven content areas. All of the questions for the first four sets of achievement related situations present two alternative answers, one expected to be chosen by a person with strong achievement motive or high expectancies, and the other by persons with low achievement motive or low expectancy orientations. The next two areas were taken intact from the Detroit survey (Veroff et al., 1971a). These items asked the respondent's preference for one of three motive value orientations: n Achievement, n Power, or n Affiliation (Atkinson, 1958).

In the Muskegon Study, the first six content areas were put through a scale construction phase and a scale evaluation phase. First, they were grouped into a priori scales according to settings (Training Motive, Job Motive, Other Achievement Activity Motive,
General Motive, Training Expectancy, Job Expectancy, Other Achievement Activity Expectancy, General Expectancy), and theoretical ideas about "dimension": 1) Future Orientation (McClelland et al., 1953; Raynor, 1969), 2) Moderate Risk Preference (Atkinson, 1964), 3) Likes Challenges in Achievement Situations (Atkinson, 1964), 4) Social Approval (Veroff, 1969), 5) Social Comparison (Veroff, 1969), 6) Achievement Value Orientation (McClelland et al., 1953), and 7) Job Interview Anxiety (Atkinson & Feather, 1966; Sheppard & Belitsky, 1966). Once the data had been gathered in response to those items, a cluster analysis (Nunnally, 1967, p. 364) was performed on this original item pool. To determine reliability of item samples combined into scales, the alpha coefficient (Cronbach, 1951) was computed for each scale. The highest reliability for any scale was .71 for the Job Interview Anxiety Scale, taken from section seven. More will be said of it later since it was adapted entirely as a component part of the Interview Reaction Questionnaire in the present research. The Cluster Analysis generated scales with reliabilities in the .40's that increase when the clusters are combined. Though the reliabilities were on the whole unsatisfactory, (with the exception of the Job Interview Anxiety Scale), an indication of the complexity and perhaps additive nature of the dimensions of achievement motivation emerges from the almost universal positive correlation between items in both the a priori and the empirically-derived scales. The authors (Veroff et al., 1971c) conclude on this note:

Perhaps these dimensions can be measured best by a heterogeneous scale that gives a complete sampling of all dimensions, but because of its completeness and diversity, has low internal consistency. If this is so, we might very well find that internally inconsistent scales of achievement orientation might be very good predictors of achievement behavior.

(p. 59)

The Muskegon Study was useful in that it tested a large item pool and indicated which sections might best contribute to the construction of a heterogeneous scale of achievement motivation. An interesting finding for the present study came from a racial analysis made on the 22 forced choice items used to measure achievement motivation, power and affiliation motives. All these items were grouped into two scales: 1) personal efficacy—defined by Epps (1969) as "confidence in one's own ability to affect what happens," and 2) a multidimensional achievement scale sampling items from several dimensions (future orientation, fear of failure, need for social approval, mastery in coping with problems, desire for success). Analyses of variance on the objective personal efficacy and achievement scale scores showed no main effects or interactions of interviewer and respondent race on either variable.

The items comprising the scales used in the Detroit survey thus represent a distillate from at least three preliminary pieces of
research on low socioeconomic, Black and White samples (Jackson I and II, Muskegon). From these studies an 'Other Achievement Activity Motive Scale' was constructed and it was this group of objective measures that was adapted for the present study, separated into Forced Choice Achievement, Triads, and Motive Checklist subtests, and divided equally between the Pre- and Posttest forms. In the Muskegon Study this particular scale was the best predictor ($p < .05$), two-tailed test of significance) for the low performance group in the Wechsler performance test discrimination and one of the best ($p < .10$) predictors for the entire sample ($n = 79$) taking these performance tests. The cluster scales, by contrast, showed very low levels of relationship with these Behavior criterion. In addition, the Other Achievement Activity Motive Scale was the only scale that showed a significant negative correlation ($- .32$) with the Total TAT Projective Criterion. In the discussion of this result it is suggested that: 'The negative relationship of the Other Achievement Activity Motive Scale with the projective criterion may indicate that achievement motivated behavior outside the job or job-training context is scored as unrelated imagery on the projective measures. Both the pictures and verbal cues used refer to a job setting' (Veroff et al., 1971a, p. 77). This scale showed some promise for the present study in measuring other-than-job-related achievement type behavior.

Another scale, this time from the Detroit survey, that was used in this study almost in its entirety (4 out of the 5 items), was the Personal Efficacy Scale, developed by Epps (1969) to demonstrate the relationship between family background and the academic performance of Black high school students. Of all the a priori constructed scales used in the Detroit study, it manifested the most interesting pattern of correlations: positive to both the projective (.328, $p < .01$) and behavior criteria (.054) for White males, but for Black males, Black females, and White females negative to projective imagery (Bm - .18, Bf - .18, Wf - .19) and positive to risk-taking Behavioral criteria (Bm - .15, Bf - .19, Wf - .10).

The remaining items in the Multidimensional Motivation Measure were selected mainly for content validity and appropriateness to the sample from the four a priori scales developed in the Jackson and Muskegon studies and tested in Detroit: Mastery, competition with a self-set standard of excellence or feelings of competence; Future Orientation, long-term goals; Autonomy-Power, ability to do things on one's own and to influence others; Social Comparison, competition with others. Both the Mastery scale and the Autonomy-Power scale related positively to both the projective TAT picture and verbal criteria and the mental task performance behavior criteria. Separate correlation coefficients, computed for both sexes of each race, averaged approximately .15. Those items which had a correlation of at least .10 in at least two of the four race-sex groups on at least one criterion and had no negative correlation less than -.10 in any group, were grouped together into the Achievement Orientation
Scale. These in turn were combined with the Anxiety Scale (revised to four items) to form the Resultant Achievement Orientation Scale. This scale predicted significantly \((p < .05)\) the level of education and the intelligence, as measured by the Sentence Completion Test \((\text{Lorge-Thorndike, 1950})\) of all the groups (White males, \(p < .01)\) except the Black females. All of the items in the Resultant Achievement Orientation except those deemed unsuitable to the population \((\text{e.g., those introduced by "Which of these would you most and least like to teach your child?"})\) were included in the Multidimensional Motivation Measure \((\text{see Appendix O})\).

b. The Self Rating Scale and Feeling Need for Achievement are derivatives of the Edwards Personal Preference Schedule. H. A. Murray and his associates first proposed the manifest need system that led to the Edward's needs at the Harvard Psychological Clinic \((1938)\). The list of needs includes: Achievement \((\text{Ach})\), Deference \((\text{Def})\), Order \((\text{Ord})\), Exhibition \((\text{Exh})\), Autonomy \((\text{Aut})\), Affiliation \((\text{Aff})\), Intraception \((\text{Int})\), Succorance \((\text{Suc})\), Dominance \((\text{Dom})\), Abasement \((\text{Aba})\), Nurturance \((\text{Nur})\), Change \((\text{Chg})\), Endurance \((\text{End})\), Heterosexuality \((\text{Het})\), and Aggression \((\text{Agg})\). The EPPS is a binary forced-choice inventory which purports to measure each of these needs through nine statements, paired twice throughout the test with a statement of another need. With an additional 15 pairs repeated in identical form to provide a consistency check, the inventory is comprised of 225 pairs of forced-choice statements. The EPPS Manual \((\text{Edwards, 1954})\) provides t-score norms for college men \((N = 749)\) and college women \((N = 760)\), as well as for a general adult group \((\text{male } N = 4,031, \text{female } N = 4,932)\).

Split-half reliability coefficients were computed on the scores of the 1,509 college norm students, and after correction by the Spearman-Brown formula, the range extended from Deference Scale = .60 to Heterosexuality = .87. Test and retest within a one-week interval was higher on the average, with Achievement and Exhibition low at .74 and Abasement high at .88. The median was .78. Intercorrelations between the variables were computed separately for the male and female college students and the matrices were judged sufficiently similar to combine the data. The highest intercorrelation was found between Affiliation and Nurturance (.49) and the next largest is -.36 between Autonomy and Nurturance. Edwards \((1954)\) suggests that the low correlations indicate that the variables being measured by the EPPS are relatively independent.

Heilbrun, a critic of the EPPS, said in the Mental Measurements Yearbook \((1972)\) that the EPPS has still not succeeded in removing longstanding reservations to its validity. He contends that most of the many studies that use the EPPS are empirical only insofar as the investigator cannot predict the results and often assumes the instrument's validity from the emerging personological 'discoveries.' He says the EPPS has proven to be an attractive research instrument.
because its content represents an important cross-section of normal interpersonal dynamics, its scale reliabilities are satisfactory, the norms are based on stable samples (from 15 years of age and up), and the interscale correlations are reasonably low. He concludes that the validity question "boils down to the amount of prudence which the user feels impelled to exercise with the test results" (p. 149).

McKee (1972) asserts that face validity of the EPPS is adequate, but believes the empirical evidence for construct validity is still insufficient. In summary he suggests: "... it can be said that some scales (particularly the Achievement scale) still have promise" (p. 150).

Several independent studies have contributed information toward the construct validation of the individual scales. Bernadin and Jessor (1957) submitted subjects to three experimental task situations requiring the demonstration of dependent or independent behavior. Subjects who had scored high on Deference and low on Autonomy showed more reliance on others for approval and for help. No relationship was found between those scale scores and conformity to the opinions and demands of others. Pool (1965) showed that clients who scored high on the EPPS Succorance and Autonomy scales and low on Endurance and Intraception did not gain from a counseling relationship.

Predictive validity studies using the EPPS Achievement scale have obtained positive results (Bendig, 1958; Gebhart & Hoyt, 1958; Krug, 1959; Morgan, 1962; Morton, 1959; and Worel1, 1960). O'Shea (1970) used the scale in describing the low achievement syndrome in bright junior high school boys, and Hickson (1970) found it to be a valid measure in predicting those students who would gain honors and those who would not. Sanders (1970) found a significant relationship existing between the n Ach scale and test performances of graduating seniors on the American College Test (ACT), using IQ as a covariate. In 1964, Davids and Andrews found the EPPS useful as one of the criteria, along with academic attainment, in evaluating the changes arising from a special educational program for underachieving secondary school boys.

McKee (1972) feels that the ipsative scaling resulting from the forced-choice check on Social Desirability reports only relative measures of need that may not hold up on an absolute basis. His objection states:

The t-scores enable comparison of relative need strength in one person with relative need strength in another, but one person's 80 might reflect an intense need among a complex of strong ones, while another person's might reflect a weak need overriding a complex of feeble ones. The richness and intensity of personality is diminished by this measuring system which implies that one strong
need must be offset by others being diluted. Also, the scales are not independent since there is intra- and inter-scale item overlap and each choice affects scores on two scales. Identical statements appear three or four times in different comparative pairs. This serves to inflate the reported internal-consistency reliability coefficients, leaving reliability uncertain since the other reliability data reported in the manual are based on test-retest data with only a week between test sessions. The ipsative measurement also confounds interpretation of correlation matrices and factor analyses using EPPS scores. (p. 74)

Poland (1963) obviated the ipsative objections by developing a self-rating scale (see Appendix N) which asks the respondent to make a check on a line of one hundred dots marked off at 0%, 10%, 25%, 40%, 60%, 75%, 90%, and 100% above the line and with seven intervals below the line labeled: like very much less, like much less, like somewhat less, like about the same as other students, like somewhat more, like much more, like very much more, that will indicate what percentage of the peer group he or she surpasses in relation to the EPPS behavior denoted.

The Poland scale was used by Strong and Schmidt (1970a) to evaluate the effects upon n Ach by perceived counselor "expertness." Forty-nine college males rated themselves on the Poland scale 3 weeks before a 20-minute interview, immediately after the interview, and one week later. N Ach ratings in the first administration correlated with the second at .28 and with the third at .30 (both significant at .05 level). The second administration correlated .66 with the third administration (significant at the .01 level). All of the administrations correlated significantly (p < .05) with the EPPS n Ach scale. As to the change resulting from expert counseling conditions, the difference between the n Ach self-ratings from pre-interview to follow-up showed changes for subjects in the expert condition differed from those in the inexpert condition at the .05 level.

Another derivative of the EPPS (Schmidt, 1970) was employed in the present study under the title: Feeling the need for Achievement (Feeling n Ach). It consists of eight of the nine achievement preference statements of the EPPS with a scale beneath each statement sectioned off into the following frequency delineations: Never, Seldom, Occasionally, Often, and Always. The student is asked to decide how often he or she wants to do or be what the item describes, e.g., "Do my very best in what I undertake," and then requested to check the segment that best describes how frequently that particular disposition motivates his behavior.

c. Graph of need for Achievement. The Graph n Ach is a normal curve divided into nine segments representing the distribution
of need for achievement in other students. The respondent is asked to place a check in that stanine which best indicates how much he wants to achieve in comparison to others (see Appendix N). To assist the respondent in comparing himself with others, percentages are designated for each stanine, which is also described by the phrases: very much less, much less, considerably less, somewhat less, somewhat more, considerably more, much more, and very much more. Schmidt and Strong (1971) asked 54 male undergraduate volunteers to estimate their own need for achievement on this scale one week before a 20-minute interview on their need for achievement. Different levels of attractiveness and unattractiveness were portrayed by two trained male interviewers. Just before the interview ended, the subject was asked to rate himself on need achievement in comparison to other college males. The interviewer then expressed the opinion that the estimate should be higher (always two stanine units above the prerate), explained how he defined achievement, and gave evidence from their discussion for his conclusion. Following the interview, the student was again asked to compare himself to others in regard to need achievement, again using the graph. Results showed that groups receiving an influence attempt differed significantly (p = .02 level) from control groups which did not. Both "unattractive" and "attractive" counselors had significant influence. The Graph n Ach was sensitive to the mere deliverance of an influence attempt.

2. Interview Reaction Questionnaire. The seventh section of questions in the Muskegon Study, referred to previously as Job Interview Anxiety, was adapted from Mandler and Sarason's (1958) Test Anxiety Questionnaire (TAQ). In the Detroit survey it was hypothesized that the TAQ (adapted to be Interview Anxiety by the substitution of "interview" for "test") would be affected by race as follows:

... for White respondents, a Black interviewer is much less common than a White interviewer, and may elicit uneasiness or hostility, hence anxiety. Thus, interview anxiety is higher for Whites with Black interviewers. For Black respondents, neither race of interviewer is unusual, but contact with a White interviewer may raise anxiety, as past research shows. Thus an interaction effect occurs, with race-matched groups having lower interview anxiety. (Veroff et al., 1971d, p. 8)

In the Detroit survey, seven items selected from the original Test Anxiety Scale (Mandler & Sarason, 1952) were adapted to form two new scales, the "past test anxiety" and the "interview anxiety." In the former, respondents were instructed to think back to school test-taking; in the latter, to the tests just taken as part of the interview. The two scales used parallel items with three-point check scale responses. The two scales correlated close to .4 but the race of the respondent on present test anxiety differed
significantly. The mean for Black respondents was only 3.057 compared to 3.952 for Whites, significant at the < .01 level. There was no significant difference in past test anxiety, nor was there any interviewer race effect on the interview anxiety scale, either on mean score or variance. The report observes (Veroff et al., 1971d) that this "runs counter to the Katz (1964) and Baratz (1969) work suggesting that Blacks especially are more anxious in the presence of opposite-race interviewers."

Behavioral Measures

The projective method attempts to measure how a person fantasizes being someone or doing something through an open-ended verbal or written response to a visual or verbal cue; the self-rating measures ask the person directly to say what they would like to be or do by choosing between two or three specific alternatives to a straightforward question. Behavioral criteria, however, attempts to measure what the respondent does in an achievement situation.

Since the behavioral measures ultimately attempt to discover why people work on tasks of different levels of difficulty, set higher or lower levels of aspiration for themselves, or choose goals which differ in ease of achievement, research on motivation has been concerned with the concept of risk taking. Atkinson (1957) has been credited with the classic explanation of risk-taking behavior.

The strength of motivation to perform some act is assumed to be a multiplicative function of the strength of the motive, the expectancy (subjective probability) that the act will have as a consequence the attainment of an incentive, and the value of the incentive: Motivation = f (Motive x Expectancy x Incentive). (p. 362)

McClelland and Watson (1973) feel that the key to the success of the Atkinson model in predicting behavior in task situations lies in the assumption that the amount of achievement incentive (la) in a task situation is an inverse function of the probability of accomplishing (Pa) the task successfully. Since both Atkinson and McClelland have dealt primarily with the Achievement Motive, the term "success" may refer to a desired outcome in terms of any incentive, not just completing a task successfully. In fact, the motives of Affiliation and Power are motives presently under consideration as researachable through the Atkinson equation, but until the present most studies, have been done on achievement situations.

DeCharms et al. (1955) argue that only in such a behavioral situation can any of the actions theoretically characteristic of a motive be measured. In their study of the effects of expert
opinion on judgment, they report that students with high self-reported achievement drives (as measured on the EPPS) were more likely to be influenced by a professor's opinions on the quality of a painting than students low on this measure. They feel that those who say that they work hard and strive for achievement clearly value achievement in that they tend to look for standards of excellence in judging the value of anything. But, they contend, conscious values can clearly affect judgments without leading to behavior that can be regarded as achievement motivated.

DeCharms (1968) directed a study in which junior high school boys built rather complex models from standard Tinker Toy sets. In some instances, they were allowed to build some themselves from a pattern they could follow, whereas in other instances, an experimenter posing as an expert gave them explicit instructions and guidance in assembling the model. The students reported that they liked the models they had built on their own better, chose more often to continue working on them, and recalled the names of them more often a month later. DeCharms reasoned that this explained why moderately difficult tasks may be more motivating and more a sign of a motivated person. With a moderately difficult task, a person feels more in charge of what happens because his effort makes the difference. Arguing that it is an elementary incentive of primary importance to the human being "to feel like a causal agent"—an origin—rather than like a pawn, a person is more apt to feel like he is a causal agent in moderately difficult tasks, because it is more up to him to determine the outcome.

When the odds are too great against someone, even if they win, Weiner et al. (1971) claim, they are more likely to attribute the win, not to their own efforts, but to a lucky break. On the other hand, if there is too little competition, people tend to attribute success, not to themselves, but to the fact that the task was too easy.

As to the odds that lead to best performance, Atkinson (1958) assembled four groups of from 10 to 20 undergraduates at assigned hours and told them that they were going to compete for monetary rewards by seeing who could solve the largest number of arithmetic and other problems in a certain specified time. When he received the test booklet, each student was told how large a money prize could be won and what the chances of winning it might be in terms of how many others were competing for it. The money prizes were either $2.50 or $1.25 for the best performance and the chances of winning it were for some students one out of twenty, for others one out of three, for others one out of two, and for others three out of four (the three best out of four were promised the prize). The mean score (52.0) for those competing for a $2.50 prize was significantly higher (p < .05) than the one (48.4) for those working for $1.25. However, the mean score for the "one out of two" odds contestants was the highest in each prize category, and the .5
probability group in the $1.25 contest scored higher on average (52.0) than any other group in the higher prize category, with the exception of the other "one out of two" group (54.1).

In discussing incentives, McClelland (1971) noted that high n Ach students (by TAT assessment) in Atkinson's 1958 study worked harder (51.8) than those with low TAT scored n Ach (50.8) when there was one chance in three of winning. However, he observed that when there was little challenge (three out of four will win) the high n Ach students actually did less well than those with less monetary incentive (44.7 vs. 46.4). His conclusion was that the actual achievement motive served to activate a person maximally only when the achievement incentive (a true challenge) was present.

More recently, Heckhausen (1967) suggested from his findings that the preferred risk for high achievers may be at a more difficult level than was originally thought, as low as a 30 percent chance of success. In a recent experiment by McClelland and Watson (1973), subjects with high n Ach (by TAT assessment) did not behave according to the Atkinson model when allowed to bet on a roulette wheel. They did choose the intermediate odds (8 and 11:1) over the low and extremely high odds (1:1 and 17 and 35-1) significantly more times in their bets, but as far as probability for success, the 1:1 bet had a Ps of .58 whereas the 8 and 11:1 odds offered only a 10 percent chance of winning. McClelland and Watson offered the explanation that the high n Ach people might have perceived their chances of winning as higher (Ps = .40) but confessed to bewilderment that they could so badly distort the actual probabilities of success.

a. Ring Toss Game. McClelland (1956b) used one of Lewin's (1944) original "level of aspiration" tasks, the Ring Toss Game, to test a hypothesis he had formed from researching entrepreneurs—that people high in TAT measured n Ach tend to like those occupations which involve some risk. The study was performed on young children because McClelland et al. (1953) had taken the position that the Achievement Motive is formed between the ages of 5 and 9, and if this is so, it should affect risk-taking behavior in children. McClelland speculated that perhaps the motive effect on behavior at an earlier age may even be purer because children have not yet been taught what risks one ought to take. The experiment relied on Aronson's (1958) discovery that certain "doodle" or "scribble" characteristics were highly correlated with n Ach scores from written stories provided by 96 male introductory psychology students. The experimental group consisted of 26 five-year-old children in kindergarten, 13 boys and 13 girls. After receiving the Doodle Test of Aronson (1958), the subjects were given a rope ring and asked to try and throw it over a peg placed on the floor. The child was allowed to stand wherever he wanted to, even on top of the peg if he preferred. Each child was given 10 trials and the distance from which each toss was made was recorded. The results on the Doodle Test showed the 5-year-olds significantly (p < .02) less productive.
of scorable units than the 9 and 18-year-olds who did not differ significantly in that area. If \( n \) Ach is forming during the 5 to 9 interval, a large increase should occur at that time. The internal consistency on the Doodle Test for the 5-year-olds was a disappointing .13, for the 9-year-olds it was .38, and .44 for Aronson's 18-year-old sample. After explaining the methodological reasons for an underestimation of the 5-year-olds (2 deviant cases, quartile grouping, etc.), McClelland estimated the reliability of the Doodle Test conservatively at .40 and perhaps more realistically .55 or .60. He suggested that this was high enough to permit using the measure for studies of group differences. McClelland's most important findings showed that the high \( n \) Ach children threw significantly more tosses from the middle distance ranges (20 to 40 inches) while 10 out of the 11 throws made standing within 4 inches of the peg were made by lows and of the 11 throws made at a distance of five feet or more, 10 were made by lows. McClelland speculated that the subjects with high \( n \) Ach might tend to gravitate toward a central tendency of successful throws. He computed the mean distance for successful throws to be 23 inches and then took a deviation distribution and found that these deviation scores correlated with the \( n \) Ach score \(-.40 (p < .05)\) which indicated that the higher the child's \( n \) Ach score, the closer he tended to approximate in his risk taking the central tendency of success.

Litwin (in Atkinson & Feather, 1966) scored 78 male introductory psychology students at the University of Michigan on the TAT for \( n \) Ach according to the manual in McClelland et al. (1953) and also administered the Test Anxiety Questionnaire. He selected the 20 who ranked highest on \( n \) Ach and lowest on the TAQ and the 20 scoring lowest on \( n \) Ach and highest on Test Anxiety (which correlated \(-.005\) with TAT \( n \) Ach). Ten subjects from each group were asked to estimate their ability to succeed on the Ring Toss Game and three other games before they played them while the remaining half were just encouraged to do as well as they could. Both sets of subjects were shown the Ring Toss and told they could take 10 shots from any of 18 lines that extended out from the target. The closest line was 10 inches from the target with the subsequent lines an additional 10 inches apart. The lines were marked by a placard at lines 3, 6, 9, 12, 15, and 18. The target was a round wooden peg, and the rings were 10 inches in diameter and made of wire covered with black tape. The non-estimating half were asked after playing the games to assign a value in money (from 0 to $1.00) for each line. In contrast to Litwin's hypothesis that the high \( n \) Ach subjects would estimate their probabilities of success as higher, both low and high \( n \) Ach subjects assigned almost identical estimated probabilities to not only the Ring Toss but also to a Penny Pitch Game. However, both groups seriously overestimated the objective probabilities. In two other games, where there was no evident point at which success was certain and no constant interval between tasks (inches between lines), the high \( n \) Ach subjects did estimate probability of success significantly higher than the low \( n \) Ach group. Litwin used deviation scores from
the average distance of success and found that high n Ach oriented subjects selected tasks of intermediate difficulty significantly more often (p < .05) than low n Ach students. Litwin also observed that the money awards matched the perceived difficulty of the task closely. If Atkinson's equation was to be supported, choices should have been predicted by multiplying the value times the expectancy. The prediction was that most choices would fall between lines 10 and 15, with fewer at shorter and longer distances. This occurred, with 67 percent of the 400 tosses being made between lines 10 and 15 (which had been estimated to have a probability of success of .41 but objectively had a Ps of .17). There was no evidence, then, that the median of the distribution of task choices is a task with a 50-50 chance. But, as Litwin (in Atkinson & Feather, 1966) concluded:

Rather, the median of the distribution is the most intermediate task in another sense; it is the median risk being taken by other subjects (remember the subjects do watch each other). This makes sense if we view these games as competitive. Thus, a "calculated" or intermediate risk is the average aspiration of your competitors. (p. 113-114)

In 1964, Atkinson restated his achievement model in terms of the Ring Toss Game by reasoning that in the game there are two major factors of influence: 1) the value of success (the worth of the goal state), and 2) the expectancy of attaining it. He saw a ringer thrown from 12 feet as having much more value, for example, than one thrown from 3 feet, but he also cautioned that a person might very well hesitate to throw from so far away because his expectancy of making the ringer could be perceived as very low.

Since the work of McClelland has been devoted recently to societal achievement (McClelland, 1961; McClelland, Davis, Kalin, & Wanner, 1971; McClelland & Winter, 1969) the Ring Toss Game has become more of a teaching technique for training young executives in motivation workshops. McClelland and Steele (1972) have a manual featuring simulation games geared to illustrating n Ach motivation theory. The Ring Toss Game is published by Education Ventures, another division of the Sterling Institute of Cambridge, Massachusetts, for student use in learning moderate risk-taking behavior, which is now postulated as the action counterpart of the Achievement Motive. The direction and rationale of the Ring Toss technique is explained perhaps most concisely in Motivating Economic Achievement (McClelland & Winter, 1969):

The point (that high n Ach people set moderate goals and work harder when the chances of succeeding are only moderately great) can be made easily with a ringtoss game, which is actually used as a training input. Each man is taken out of the room, shown a peg some distance
away, given three rings, and asked to see how many he can throw over the peg. He is further instructed that he may stand at any distance he likes from the peg. The examiner's task is simply to record where he stands and how many ringers he makes. After each man has performed the task, the instructor reports the results for each individual to the group, explains why research has shown that men with high n Ach tend to stand at moderate distances from the peg, and uses the results obtained in a general discussion. (p.
b. Darts and Dice. The first study in the literature that was geared specifically to test Atkinson's risk-taking model was the research of Atkinson, Bastian, Earl, and Litwin (1960) on 66 college males. The dependent risk-taking variable was a modified shuffleboard game in which the participants were allowed to shoot from any of 15 lines, increasing in distance from the target. The first session was termed a goal-setting session in which the subjects practiced, and it was found that high n Ach students (as assessed by the French Test of Insight) took shots from an intermediate range significantly (p < .05) more often than subjects described as low n Ach by the FTI. The second part of the experiment was to arrive at objective probabilities of success for each individual. The subjects did so poorly on the practice session that even the closest lines had a Ps of less than .50. Therefore, the subjects were brought into the experimental setting individually instead of collectively participating as before. In these circumstances, the subjects high in n Ach took closer shots significantly more often than subjects low in n Ach. Since the closer distances were represented as objectively possessing Ps values of .50, these findings were also interpreted as lending support to the risk-taking model. Atkinson interpreted the subjective probability of success perspective as perhaps an overly simplistic reasoning process on the part of the game player. He speculated that the subject must feel that the probability of success must appear much closer to 1.00 than to .50 at 1 foot and closer to 0 than to .50 at 15 feet. The assumed implication was that the subject feels that the 'safer zone' of intermediate risk or intermediate difficulty must fall somewhere in between. In a study by Atkinson and Litwin (1960), the probabilities for a ringer estimated by 49 male college psychology majors was 1.00 at 1 foot, .52 at 7 feet, and 0 at 15 feet. However, the Ps judged on the actual ringers scored, compared to the number of tosses made from 8 to 12 feet, was only .23.

DeCharms and Dave (1965) asked 71 fourth, fifth, and sixth-grade boys to shoot a volleyball into a basket placed on the floor. The subjects were allowed to choose distances ranging from 4 to 22 feet and were given 20 shots. First a practice run was taken, however, in which each subject took 10 shots from every distance. All of the trials were performed before the experimenter alone. Test Anxiety and TAT n Ach were measured prior to the actual
performance sessions. Under these conditions, neither n Ach nor Test Anxiety was significantly related to risk-taking strategies. The authors suggested that if the alone vs. group presentation made the difference, then TAT n Ach and Test Anxiety may be situation specific only to conditions where a subject is comparing his performance with the performance of others. However, they admitted that the major innovation of the study and what probably accounted for the lack of significance was that individuals' subjective probabilities for success were more clearly determined in advance by the controlled practice from each and every measured distance. DeCharms (1968) later suggested, though, that n Ach may be measuring not an intrinsic satisfaction obtained from accomplishing a task but an extrinsic reinforcement resulting from some external standard of excellence like social approval or "the acclaim of the crowd." He stated: "This question is more than a problem of the specific experimental operations of this study, it is a basic question about the goal of achievement motivation in general" (DeCharms, 1968, p. 220).

A second goal in the Atkinson et al. (1960) experiment was to investigate betting preferences as a function of n Ach. Forced-choice paired bets, differing in probability but matched in expected value were handed out in two different questionnaires, the expected value of the first being $.30 and the second being $300.00. The probabilities of winning were on base 6, as on dice, being 6/6, 5/6, 4/6, 3/6, 2/6, and 1/6. The results indicated that the high n Ach students showed a slight but insignificant preference for intermediate probabilities of winning only in the case of the small expected value. The low n Ach group completely avoided intermediate risk, regardless of the anticipated value. Intermediate risks were designated as 4/6, 3/6, and 2/6. Atkinson explained the low n Ach behavior thus: "... persons who have a long history of anxiety in competitive activities fail to discriminate between games of skill and games of chance because the outcome more often seems beyond their control even in tasks requiring skill" (Atkinson et al., 1960, p. 35).

Littig (1963) attempted to investigate the motivational correlates of probability preferences in an actual betting experiment which controlled the amount to be won or lost. A game of poker dice was played by 16 subjects in which points were bid to play against poker hands having .10, .30, .50, .70, and .90 probabilities of being beaten. The results showed that subjects high in n Ach (measured by the TAT) significantly preferred intermediate probabilities of success, while subjects low in n Ach and high in Fear of Failure (measured by the Test Anxiety Questionnaire) avoided intermediate probabilities of success. Van der Meer (in Hermans, 1970) followed a procedure similar to Littig's and arrived at essentially the same conclusions. Litwin (in Atkinson & Feather, 1966) employed an imaginary horse betting procedure, and found that achievement
oriented subjects preferred intermediate gambles significantly more often than failure oriented subjects.

The only experiment to be found in the literature employing both the TAT and a Darts achievement situation was reported by Huk (1971). The subjects were 89 male students in an Introductory Psychology course at Ohio State University. All were pre-tested with the TAT n Ach, the Mandler and Sarason Test Anxiety Questionnaire, and the Rotter I-E Scale (to discern the effect of extrinsic factors on n Ach). The intercorrelations of the scored independent variables were: TAT n Ach - TAQ (r = -.11), n Ach - External Control (r = -.12), TAQ - External Control (r = .13). None were significant at the .05 level. The subjects were tested in 10 groups of eight in an informal atmosphere, with each subject being introduced individually to the task. The apparatus consisted of a dart board with concentric circles painted on it, representing 100, 80, 60, 40, 30, 20, and 10 points. Beginning 5 feet away from the board, 12 lines, 2 feet apart from each other and going to the back of the room, were marked on the floor. A practice session was given to acquaint the subject with his probability of success and provide the necessary task motivation arousal. Success was predicted upon the number of points to be gained.

Following the skill test, the eight subjects were brought into another room and administered a betting preference questionnaire similar to the one used in the Atkinson and Litwin (1960) research, with the exception that the probabilities ranged from 1/7 to 6/7 and the three expected values were $.60, $6.00, and $60.00. The subjects were asked to make their choices as if the given alternatives were actually presented to them in the real world.

The results reveal that, based on Deviation scores from the median distance of all shots, subjects high in n Ach showed a slight preference for intermediate risk and subjects low in n Ach exhibited a greater mean avoidance of intermediate risk but neither mean reached significance. The expected interactive effects of high n Ach and External Control and Test Anxiety and External Control did not take place at any level of significance. In the Chance task, only the 3/7 and 4/7 odds were labeled intermediate choices, and the number choosing just these two declined as the anticipated value rose from $.60 to $60.00, but of the five who preferred the intermediate odds for the $60.00 prize, only two scored high in n Ach. None of the four independent variables reached significance at the .05 level in the Anovas performed on the data, nor were there any significant interactions.

In discussing the results, Huk feels that the absence of an external reward (Expectancy II according to Campbell et al., 1969) explained the inability of high n Ach subjects to relate significantly to intermediate risk behavior. There were no significant main effects and no significant interactions in the analysis of
the Chance tasks, either, but Huk here questions his methodology, especially in changing the odds to base 7 and limiting the intermediate risks to two choices. He also admits that the reward as well as the betting procedure was presented more realistically in the previously reviewed literature. It was concluded that further research was needed, especially on the relationship of the independent variables to risk-taking behavior in Chance Tasks.
CHAPTER 3

METHODOLOGY

Hypotheses

The following hypotheses were generated from the findings discussed in the Review of the Literature:

It was hypothesized that between groups:

1. The experimental group of counselees would show an increase significantly greater than that of either the control group or the comparison group on the posttest measures of need for achievement, affiliation, and power.

2. Black counselors would receive significantly higher ratings than those received by White counselors on the Interview Reaction Questionnaires of students from all the students receiving counseling.

It was hypothesized that within the experimental group:

3. Black counselors would effect a significantly greater increase than that effected by White counselors on their counselees' posttest measures of need for achievement, affiliation, and power.

4. Female counselors of both races would effect a significantly greater increase than that effected by male counselors on their counselees' posttest measures of need for achievement and affiliation.

5. Black female counselors would effect a significantly greater increase than that effected by White female counselors on their counselees' posttest measures of need for achievement and affiliation.

6. Female counselees would show a significantly greater increase than that shown by male counselees on the posttest measures of need for achievement and affiliation.
Setting of the Study

Upward Bound

All the students in the experimental and control groups and four students in the comparison group had just finished either their sophomore and junior years (Upward Bound students) or senior year in high school (Bridge students). Upward Bound is a federally funded pre-college program for high school students, involving a full-time summer program and follow-up during the regular school year. The program seeks to find and motivate high school students with underdeveloped academic potential who have been handicapped by economic, cultural and educational deprivation.

The purpose of Upward Bound is to develop skills and motivation appropriate for education beyond high school among young people from low-income backgrounds whose abilities have not yet, in the judgment of their counselors, been sufficiently challenged. The program's thrust is to increase a young person's likelihood for acceptance and success in post-high school education. Upward Bound is not primarily a program in high school subjects. Its aim is to motivate its students to consider a college education. However, where academic deficiencies are discovered during the early stages, tutorial assistance is made available.

Students reside on the college campus for six weeks during the summer. Tuition, room and board and a small allowance are provided as a grant to each student enrolled. The grant also includes medical insurance during the six weeks' stay on campus. All school needs (paper, books, etc.) are provided. Each student is assisted by special instructors in subject areas to help him in meeting the requirements for further education, especially at the college level. A learning center equipped with tapes, workbooks, and supervised by a reading specialist is available to the students who desire to improve their learning skills. Individualized tutoring sessions are provided for students wishing reading and study skills and to upgrade their academic performance in areas of need determined by testing. A counseling service is also part of the program. The schedule generally calls for a morning of academic work, with afternoons and evenings for extracurricular activities such as art, music, drama, concerts, field trips to museums, theaters, historical sites, parks, and recreational activities. Effort is made by the project staff to involve parents in the program in various ways such as an orientation day for the entire family, parent interviews, social and cultural events produced by the students for parents' night, etc. The follow-up program consists of a weekly academic checkup each Saturday morning at the college, visits by the staff to the high schools, individual counseling and tutoring. High school students, tenth and eleventh graders, whose families have annual incomes within the government poverty index,
Students are eligible. Students must live in the county in which the college is located. Students may be recommended by a teacher, counselor, social worker, or any interested person having some knowledge of the need of the student. In general, a student qualifies if his family meets any of the following conditions:

1. Lives in federally-supported, low-income housing.

2. Is part of a family where there is serious mismanagement of income so that little, if any, of such income accrues to the benefit of the student.

3. Is from a family on a state or federally funded welfare program.

In addition, such a student must meet one or more of the following criteria:

1. Lives in a designated neighborhood.

2. Has English as a second language.

3. Is living in a family where the head of the household is employed in a low-income, dead-end job.

4. Is of a cultural heritage not reflected sufficiently or accurately in the current curriculum or system.

5. Is a migrant.

Students ordinarily become Bridge Program members after they have completed the Upward Bound Program and have completed their senior year in high school.

The Bridge Program

This is an extension of the Upward Bound Program to help prospective college freshmen prepare for their first year in college. The program provides counseling and testing, work in college level composition and study skills, and other college preparatory work, such as a college credit course during the summer before the freshman year. Each student is offered an individualized program. Students eligible for the program are those who have been provisionally accepted by any college or college-bound students who desire extra help before starting college work.

Areas of concentration dealt with in noncredit college preparatory courses during the six-week period include the following.

Self-organization
Following directions
Reading development: comprehension and speed
Study skills: outlining, note-taking, reviewing, and memorization
Vocabulary development
Writing development
Library skills: location of information, reference material
Preparation for and taking of examinations

These are taught by professional instructors and counselors with the assistance of tutors. The staff-student ratio is approximately one to eight. In addition, the student matriculates for one of two college credit courses offered by the college during the summer, Introductory Sociology or Introduction to Political Science. Four semester credits are given for each college course completed, but the college skills classes in the Bridge Program do not carry credit.

The College

The research was conducted on the campus of a medium-sized liberal arts college in the outskirts of a large city in the Midwest. Most of the students who participated resided in one of the air-conditioned dormitories on campus. College students lived with the program's participants and acted as tutor counselors. These tutor counselors were men and women of both the Black and White races.

Classes were attended in one of the major classroom buildings not connected to the residence hall. For the convenience of the students, the counseling interviews were held on the second floor of the building in which they attended class (Appendix A), in rooms ordinarily designated as administrative offices or classrooms. The behavioral measures were also made on this floor, with rooms pre-assigned to be used for practice or final sessions. The Interview Reaction Questionnaires were filled out in the central waiting room of the administration wing on the eastern end of the building. The Upward Bound Program classes were usually held in the east end of the building while the group of students preparing to become college freshmen took their classes on the first floor and in the wing of the second floor of the building. The research took place during the fourth summer of Upward Bound on this campus.

Method

Tutor Counselors

Six college students, two Black men, two Black women, one White woman, and one White man, lived with the students in both the Upward Bound and Bridge Programs and planned and assisted in many of their activities. Two days before the summer session began, the counseling and testing experience was explained and they were asked to assist in the project by introducing the student to the counselor (Appendix D),
helping direct and score the behavioral measures and presenting their advisee with an Interview Reaction Questionnaire after the counseling session. To familiarize these staff members with the simulation games, two practice sessions were run at the meeting and all participated.

The Bridge Program had six additional nonresident tutor counselors, five White women who were certified teachers, and one Black male, a professional counselor, who organized and supervised the counseling program. These counselors spent four hours each day helping the Bridge students develop speed reading and comprehension, expand vocabulary and practice writing skills, and prepare for college test-taking and library research. A meeting was held with them on the morning of the first day of the program and they, too, were asked to make counselor-counselee introductions (Appendix D), to assist in the direction of the behavioral measures, and make sure each counselee received an Interview Reaction Questionnaire after the counseling session.

**Contract Counselor Role (Appendix B)**

Twelve counselors, six Black and six White, three male and three female of each race, participated as counselors. Eleven came from the Department of Guidance and Counseling at a large university in the Midwest and one counselor, a Black male, came from a Counseling Psychology Department. The latter was the only one already holding a Masters Degree. All the others were two courses or less from meeting Masters Degree requirements and all had had a counseling practicum. They ranged in age from nineteen to thirty-four. One week before the beginning of the program, they received a letter (Appendix C) with a description of the Background of the Study (above) and a report of the Contract Method (Appendix C) as used by Goldman (1972). On the night before the two days of counseling, all met at the college and listened to a tape prepared by Goldman (1972) (Appendix C) on contract counseling as she found it to be successful in teaching a study skills course. Each was given a copy of the agreement (Appendix E) and instructed to aim the interview at helping the counselee make a contract which would set aside a realistic portion of each day for the development of the academic skill, which in the opinion of the student, was the one most needed for his or her own particular academic success (Appendix B). The counselors were appraised of the fact that the counselees would be given tests to measure need for achievement before and after the 25-minute session. Each counselor was asked to record every session from beginning to end, was given a tape recorder and practice in using it. The counselors were informed that they would be introduced to counselees as experts (Strong & Schmidt, 1970), for expertness had been found to influence an
increase in n Ach rating. Finally, they were asked to encourage (McGuire, 1973) the students to work hard during the summer session, and to terminate the interview with a closing statement that recommended a high need for achievement and motivation level (Appendix D, No. 11).

Students

Forty-nine members of the Upward Bound Program, 22 Bridge Program students and 16 students enrolled in summer school attending college credit courses in Sociology and Political Science with the Bridge students, participated in the study. Upward Bound and Bridge students were randomly assigned to three groups, 48 to an experimental group, 19 to a control group, and the four remaining joined the 16 commuters who just attended classes, to form the comparison group. The experimental group, whose counseling experience was measured by a pre-post testing, was comprised of 19 female (seven Bridge) and 17 male (four Bridge) Black students, and eight male (three Bridge) and four female (two Bridge) White students. The control group, which received counseling after taking the posttests, consisted of eight female (one Bridge) and four male Black participants and four female (three Bridge) and three male (two Bridge) Whites. The comparison group consisted of five male (one Bridge and two Upward Bound students) and three female (one Upward Bound student) Black students and nine female and three male White students. Only the four Upward Bound or Bridge Program students in this group resided at the college and participated in a Program. The experimental group contained 16 Bridge students, there were five Bridge students in the control group, and one in the comparison group. In the assignment of counselees to counselors, at least one student new to the Upward Bound Program, one student returning to the Program, and one Bridge student were chosen randomly for each counselor, with no consideration being given to race or sex in the selection. After the random assignment had been made, a check was made to assure that every one of the possible 16 Black-White, Male-Female, Counselor-Counselee dyadic combinations existed. The students ranged in age from 15 to 19 years and all had been recommended by their high school counselors and had been carefully screened to make sure all of the prerequisites for the program were present. Sixteen of the Bridge Program members were returning for the third year at the college, 12 having been already accepted by a college, three still pending and one undecided. The Bridge Program had four students who commuted, but all the others and the entire Upward Bound enrollment resided on campus.

Procedure (Appendix F)

Two days before the beginning of the summer session, four Black tutor counselors, one Black and two White teachers employed in the program, and one Black and three White graduate students from a Counseling Psychology Department of a neighboring university met
and planned the procedures for conducting the Practice and Final sessions for the behavioral measures. Each read the administrator's manual for the Ring Toss Game (Education Ventures, 1970) and the Darts and Dice Game (McBer and Company, 1966), and several hours were devoted to playing the games for cash prizes to obtain a familiarity with their administration. Two Black tutor counselors and two White Counseling Psychology students were assigned to the Practice session and the remaining seven assisted the experimenter in administering and scoring the Final session trials. The same administrators conducted the Practice and Final sessions of both the pretest and the posttest.

The day of the students' arrival on campus, the counseling program was presented to the parents and they were informed of the contract counseling project. When the students registered, they were given a Personal Information Questionnaire (Appendix G) which, besides asking basic family and school information, inquired about which school subjects the students liked most and which they liked least. A special section entitled "Academic Difficulties" was included to elicit thought by the students as to which particular school-related behaviors seemed most difficult. Fourteen of the most commonly mentioned complaints were listed and the students were asked to check once the areas in which they had some problems, and to place two checks in front of the areas of major difficulty. It was thought that this method might initiate thinking towards a specific need that could later be operationalized into a contractual objective.

All of the students in the counseling, control, and comparison groups were pretested with the TAT picture and verbal tests, the Multidimensional Motivational Measure, and the Ring Toss and Darts and Dice Games in their classes and during the group session periods on the morning and afternoon of the first day. All projective and objective measures were given in a split-half format, with half the students randomly selected to take the first half the first day, and the remaining students taking the second half as a pretest. After the Ring Toss and Darts and Dice Games on the afternoon of that day, the counseling and control group members were informed that on the next two days they would have an opportunity to be counseled by an expert college counselor. It was explained that entrance into college most likely would involve seeing a counselor and that 12 professional counselors had consented to engage in contract counseling with the members of the program. Contract counseling was defined as a new type of guidance technique in which a student who was preparing for college would choose an area in which he or she needed improvement and a way to develop that skill would be worked out with the counselor (Appendix H). The students were given an appointment card listing their name, the date of their appointment, and the time and place at which it would be held. They were told they would be asked to evaluate their counselor after the interview by filling out an Interview Reaction
Questionnaire in the waiting room at the east end of the second floor (Room 210, Appendix A), so that it could be determined what type of counselor would be best chosen for the program as a full-time staff member. In the event that an appointment card was lost, a list of counseling appointments was posted in the main classroom corridor for reference.

After classes the second morning, tutor-counselors made sure their students were there for their appointment and introduced the counselee to the counselor. After the interview, the counselee proceeded to the waiting room (Room 210, Appendix A) where an Interview Reaction Questionnaire (Appendix I) was presented and the counselee was asked to fill it out, being sure to grade his, counselor so that a decision could be made for hiring a counselor in the future. On the afternoon and evening of the second day, second Ring Toss and Darts and Dice games were played, and the remaining items of the Exercise of Insight (TAT verbal test) and the Multidimensional Motivation Measure were administered, with each student receiving the alternate half of the test that he had not received on the first day. During the English classes on the morning of the third day, the remaining three protocols of the Exercises of Imagination (TAT picture test) were presented for written reactions, again with each student receiving the three pictures he had not seen the first day. Then the control group received counseling. The comparison group took all the tests, but was not introduced to counseling, nor were the students in it given any impression that any counseling would be forthcoming. By the afternoon of the third day, all tests had been completed and all who were informed that they would be counseled had had their interview and had been requested to fill out an Interview Reaction Questionnaire.

Recording and Rating

All counseling sessions, of both the counseling and control groups, were recorded on 60-minute cassette tapes, thus requiring the counselor to turn the tape over once, after the second interview. In order to assure homogeneity of treatment, 39 of the 48 interviews were taken as a sample to test for communality of treatment, both in content and manner. A public high school English and Speech teacher, who had had 25 years of experience teaching in a racially-mixed school, critically judged the entire 39 sessions as to the presence or absence of the following treatment components.

1. A greeting of and continuing reference to the counselee on a first-name basis. (Attractiveness)

2. A complete and thorough explanation of the contract method as it applied to this particular counselee. (Expertness)
3. An agreement, through discussion, on a particular task to be accomplished or skill to be developed, as well as a specific time to be spent in the accomplishment of the specific task or development of the particular skill. (Expertness)

4. The assurance that this one-week contract would be followed up by another session to check progress made and make any modifications in the contract that might be needed. (Trustworthiness)

5. A presentation of the contract as a voluntary commitment on the part of the student and not as an obligation forced upon the counselee. (Trustworthiness)

6. An expression of the conviction that the contract method has been shown to be effective in acquiring academic skills and will be beneficial to the counselee. (Expertness)

After the tapes had been judged, 5-minute excerpts were taken from each at approximately the same point and these were rated by three judges. The judges included an English teacher with a Masters Degree, a Ph.D. in Linguistic Analysis, and a doctoral candidate in Counseling Psychology. All read Schmidt and Kaul's (1971) definitions of counselor expertness, trustworthiness, and attractiveness before rating. The judges used an eight-point scale (Appendix K).

**Criterion Variables**

**Sources, Scoring and Reading Level of the Instruments**

The projective instruments in this study are described, both as to format and scoring, in Atkinson (1958). Atkinson's research has been at the University of Michigan and has been associated with the work of French (1955, 1958), and more recently, Veroff et al. (1971a), whose research produced most of the items in the Multidimensional Motivation Measure. The EPPS items originated with Edwards (1954). McClelland's group at Harvard has emphasized behavioral instrument development, with the theoretical work of Alshuler and Tabor (1970a) on simulation games to test for n Ach, n Aff, and n Pow being operationalized and manufactured in the form of the Ring Toss Game (Education Ventures, 1970) and the Darts and Dice Game (McBer and Company, 1966) by the Sterling Institute. The Behavioral Science Center of Sterling has a scoring subsidiary named the Motivational Research Group and two publishing arms, Education Ventures Incorporated and McBer and Company, which publish manuals for the n Ach simulations. It was with the consultation of the management at McBer that all of the projective and behavioral measures were selected for studying this particular
student sample. The Motivational Research Group provided the professional scoring service for all the projective tests, scoring each measure for the three motives of n Ach, n Aff and n Power.

All tests were subjected to the Lorge formula (1959) for reading difficulty and each word was found in the Kucera-Francis Dictionary of Frequency of Word Use. No instrument was found to exceed a fourth grade reading level and no student in the sample had scored below the fourth grade reading level on the Iowa Reading Test. Every word in every instrument was in the Kucera-Francis Dictionary and only five percent were present in only one of the documents from which the word sample had been made.

Projective Techniques

Exercise in Imagination (Appendix L). Pictures were used which have been found to elicit a large proportion of achievement imagery. Two consisted of all male figures, featuring a White teacher with young Black students, in a chemistry lab and over an engine in a shop course. The third featured a Black male student separated from, but looking into, a classroom with Black students and a female teacher who could be White or Black. The fourth is a group of White businessmen sitting around a table with one man turned away—who could be seen as Black. The last two pictures are of solitary figures, one seated in a doorway who is definitely female and the other a male lying on a bed reading a newspaper. Because of the shaded nature of the protocols, either or both could be seen as Black, young adult figures.

In addition to need achievement, the pictures are scored for affiliation and power imagery. The respondent wrote stories in response to the pictures and to a standard set of printed cues: "Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests (printed below picture) (at the top of blank page provided for writing impressions). What is happening? Who are the people? What has led up to this situation? That is, what has happened in the past? What is being thought? What is wanted? By whom? What will happen? What will be done?

The scoring methods for achievement and affiliation in both these tests and the Elizabeth French test have been outlined in Motives in Fantasy, Action, and Society, edited by John W. Atkinson (1958). The power manual was prepared by William E. LeClere and Richard E. Kristensen and is an abridgement of a larger manual developed by David G. Winter (1968).

Motivational Research Group maintains an inter-scorer reliability of .80 (rank-order correlation between scorer and expert scorer) and an imagery agreement average of .90, that is, nine out of 10 manifestations of the particular motive's imagery are on the average
identified by all the scorers of that particular story or set of stories (McBer and Company, 1972). Scorers are given periodic checks to maintain their reliability.

Exercise of Insight (Appendix M). Developed by French (1955), Atkinson (1958) considered the items to be a verbal equivalent to the TAT because they substitute verbal cues for the picture cue of the TAT, and employ a parallel set of probes to elicit a story in response. Each item is scored by the Motivational Research Group for need for achievement, affiliation, and power.

Objective Tests

1. Multidimensional Motivation Measure (Appendix N). This set of items was constructed in keeping with Veroff's (1971) proposition that n Ach is not a unitary construct but one composed of several different specific achievement motives. It includes all of the following subtests selected from his research to be included in the present study.

a. The Self-Rating Scale. Source: Edwards Personal Preference Schedule. Based on the Edwards Personal Preference Schedule (Poland, 1963), this instrument requires the subject to estimate the percentage of other students he or she surpasses in relation to the behavior the scale denotes. In addition to the percentage marking, the scale is divided into seven sections labeled as follows: like very much less, like much less, like somewhat less, like about the same as the other students, like somewhat more, like much more, like very much more. The introduction to the items was adapted from the one used by Strong and Schmidt (1970) in measuring the influence of trustworthiness in counseling college men. The eight scales to be rated were: Achievement, Deference, Order, Autonomy, Intraception, Dominance, Heterosexuality, and Aggression. The score corresponded to the percentage the subject checked, X-ed, or marked as the point which best described him or her in relation to the peer group on that behavior.

b. Feeling Need for Achievement. Source: Edwards Personal Preference Schedule. This subtest (Schmidt, 1970) uses individual statements comprising the EPPS achievement subtest. However, in this form the student is asked to decide how often (frequently) he or she wants to do or be what the item describes. The scale is divided into five segments: never, seldom, occasionally, often, always. The student is requested to place a check at that point on the scale that best describes his or her decision. The scoring ranged from 1 to 5 corresponding to the 5 scale divisions.

c. Forced Choice Achievement. Source: Student Opinion Attitude Questionnaire, Atkinson and Moulton (1969). These items are in a two-choice format. The respondent chooses one of two
more-or-less antithetical statements, one of which reflects an achievement-oriented attitude. Seventeen of the original 50 items are included in the Jackson II Interview (Veroff et al., 1971a). The items selected were those which best predicted both TAT achievement motivation scores and performance measures of moderate risk preference in an analysis of data from an article entitled "New Methods of Measuring Achievement-Related Motives," Atkinson and Moulton, 1969. Four items were selected for inclusion in the present study, each representing one of the four distinct achievement-related attitudes among the various Student Opinion Attitude Questionnaire items. These are mastery, interest in social comparison, concern about social approval of achievement, and future orientation. The scoring was 1 for choosing the need for achievement items and 0 for not doing so.

d. Triads. Source: Jackson II and Detroit (Veroff et al., 1971a). This series of items seeks to get at the relative strength of achievement values, pitted against affiliative and power values, which make up the other two alternatives in the three-choice items. Triads require the respondent to rank order desirable characteristics of one's child, a job, or oneself. Each of the three characteristics in a triad relates to one of the three motives. The focused, rather than abstract, situations used in the triads provide a standard context in which to place the affiliative, achievement, or power value of the item. Questions demanding introspection can be too specific, referring everyone to a context which means different things to different people. But by using a situational context, one gains control over what reference respondents make. By using a fairly universal, but specific context (job, child), it was assumed that responses would be made to experiences which have a common core of meaning for most respondents. That value desired most received a score of 3, the one desired least a score of 1, and the intermediate choice a score of 2.

e. Personal Efficacy Forced Choice. Sources: Work of Epps, Gurin, and Morgan at the Michigan Institute for Social Research. The agree-disagree format used in the Jackson II Study (Veroff et al., 1971a) was that of Epps' (1969) study of family background and achievement motivation. The respondent indicated his agreement or disagreement with a series of statements. These divide into items dealing with first person efficacy (statements about how confident a person is in his ability to achieve, influence, handle a situation, or be accepted) and others dealing with third person efficacy (statements about how controllable the world is). For the Detroit Study, five items which deal with first person efficacy were created, drawing on the work mentioned above and using a forced choice between pairs of antithetical statements. The agree-disagree format suffered from a strong bias toward "agree" responses, so the items in this study were presented in a forced choice format. The score was 1 or 0, depending upon the selection of the n Ach item.
f. Motive Checklist. Source: Jackson II and Detroit (Veroff et al., 1971a). The second measure pitting the three motives of achievement, affiliation, and power against each other was a forced choice of those statements one would most like to hear about oneself. The Jackson II Study (Veroff et al., 1971a) asked the respondent to choose any five statements of 12. The 12 consisted of two stronger and two weaker statements for each of the three motives. This task proved difficult for respondents. In the Detroit Survey (Veroff et al., 1971a), eight of the 12 statements were taken and paired according to the frequency with which they were chosen in Jackson as something one would like to hear about oneself to yield four of the five two-choice items used in Detroit. The respondent received a 1 or a 0 depending upon his choice of the need for achievement item.

g. Graph of Need for Achievement (Strong & Schmidt, 1971). This 9-point stanine scale ranged from very much more achievement motivation compared to other students to very much less. Superimposed on the scale was a normal curve and the percentage estimates falling in each category were clearly marked. The student received a score from 1 to 9 corresponding to the stanine checked.

2. Interview Reaction Questionnaire (Appendix I)

a. Anxiety Scale. This instrument was taken from the Test Anxiety Questionnaire developed by Mandler and Sarason (1952) and used in the Jackson II Study and Detroit Survey (Veroff et al., 1971a). In the Interview Reaction Questionnaire, instead of a testing situation, a counseling session provided the object of anxiety appraisal. The TAQ is a series of true-false questions about one's feelings, physiological reactions, and attitudes before, during, and after testing. It is used as a measure of anxiety, which, in achievement context, may be related to fear of failure. To adapt the TAQ for use with subjects with no recent or continuing test experiences, Marquis (1969) instructed respondents to think back to school or some other time of frequent test taking. The questions were put in the past imperfect tense. This method was used in the Jackson II Study (Veroff et al., 1971a).

For the Detroit Study (Veroff et al., 1971a), seven items from this version of the TAQ were placed before the interview (Past Test Experience), and an "Interview Experience" measure was added which used the same items in the present tense, and instructed the respondents to think about the current interview situation. The response format was changed to a 3-point check scale. TAQ was modestly negatively correlated with many of the Veroff et al. (1971a) intelligence scales and was substantially higher for Blacks than for Whites. The respondent was given a 3 for the best feeling and 1 for the worst.
b. Forced Choice Achievement. Source: Student Opinion Attitude Questionnaire, Atkinson and Moulton (1969). These items were taken from Veroff's research and offered the respondent a choice between two behaviors or opinions. If the item operationalizing the achievement motive was chosen a 1 was scored, but otherwise a 0 was given.

c. Counselor Rating Schedule. A number of areas in which the counseling session was considered to be capable of being evaluated were graded from A to F, with an A receiving 3 points and an F a score of -1. Comments were listed separately (Appendix P) and a score of 1 or 0 was given for a yes or no on approval of the counselor as a full-time program member.

**Behavioral Measures**

All participants were appraised of the rules of the games before the practice rounds and a $10.00 first prize, with additional prizes of $5.00, $3.00, and $2.00 were announced before the pretest and posttest games.

**Ring Toss Game.** This indicator of intermediate risk-taking ability has been used in many business management workshops (Education Ventures, 1970) to measure n Ach but has not been validated in a controlled experiment. Its use in this study was to provide an estimate of concurrent validity for the projective measures and to investigate whether a simulation such as this might differentiate and quantify a risk-taking component of the achievement motive. The game itself has been used as a test (McClelland, 1958; Atkinson & Reitman, 1956; Atkinson et al., 1960; Atkinson & Litwin, 1960) and has more recently been employed in teaching motivation. As a teaching instrument it is designed as a simple vehicle to help students discover the action strategies which are part of the achievement motive and to use these strategies consciously in other situations.

Game equipment consisted of one-foot-long plastic pegs that were inserted in plastic bases 8 inches in diameter. These bases were securely taped to the floor with masking tape to provide a stable, immovable target. The rings were made of woven plastic and were 10 inches in diameter. Playing areas were 24 feet in length, one playing area to a room (Appendix A). One-foot intervals were marked off from the peg with chalk up to 20 feet. The Payoff Table was printed on the blackboard of both the Practice and Final rooms in this way:

<table>
<thead>
<tr>
<th>Payoff Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance from Peg</td>
</tr>
<tr>
<td>Less than 5 feet</td>
</tr>
<tr>
<td>Distance from Peg</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>5 feet</td>
</tr>
<tr>
<td>6 feet</td>
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<tr>
<td>7 feet</td>
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<tr>
<td>12 feet</td>
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<tr>
<td>13 feet</td>
</tr>
</tbody>
</table>

Each game consisted of two rounds. In the first round, each player was permitted two practice tosses to get the "feel" of the task, and then four tosses that "really count." There was no official point scoring in this practice round, however. The player was informed that a toss may be made from any distance, and the distance may be changed after each toss, either for a position closer to or farther from the peg. However, before each throw, the player must announce the distance chosen. As the manual (Education Ventures, 1970) observes, this announcement facilitates score recording and presses the player into making decisions as to exactly where he will stand, rather than just hastily throwing all the rings from wherever he happens to be standing. The player is forced to assign a value and an expectancy on each throw. The player's name, the distance chosen for each toss, and whether a ringer was made (by a circle around the distance) was recorded.

The second round was played in the Finals room with a number of the other players present. The procedure was exactly the same as the first round with two practice throws, to allow an opportunity to get accustomed to the new situation, and then the four final rings upon which total game points were computed. The scoring was based on the basic assumptions of the game: High n Ach people compete with some standard of excellence; people with high n Ach take moderate risks; and high n Ach people make use of concrete feedback. Thus one point was given for each of the following behaviors: 1) evidence that the practice round was used to moderate the initial throw in the final round, 2) the actual scoring of any points, 3) an initial trial from a moderate distance, defined as from 6 to 10 feet, 4) evidence of the use of feedback through increasing or lessening the throwing distance depending on success or failure.

Darts and Dice (Appendix R). This game offers an opportunity to the player to assume more personal responsibility for the outcome by depending on his own skill in throwing darts, or choosing to cast the dice, and leaving the game more to chance. The game provides the player alternatives in risk taking through a bidding procedure and also gives him a chance to modify his behavior through concrete feedback during a number of throws during both a Practice and a
Final session. The game's equipment consists of a dartboard with seven possible scores represented by the areas formed by six concentric circles (100 for a bull's eye, 80, 60, 40, 30, 20, and 10) and six darts. The darts are thrown from one line marked on the floor exactly 12 feet from the board, which is mounted on the wall so that the bull's eye is 4 feet 9 inches from the floor. The dice are cast from a shoebox onto the floor and points are assigned to different die combinations (100 for 2 on one die, and another 2 or 4 on the other die).

The object of the game is to make points on each throw of the darts or dice. Before each throw, the player must make an estimate or bid of what he believes he can make. Only if the player makes, or betters his bid, is he given the points he bid—otherwise, he receives nothing for that throw. Even if he scores higher than he bid, the player receives only the number of points bid, so too "safe" a bid does not always make for a winning game total. The players are told before they begin the game that the mathematical chances are the same whether they cast dice or throw darts. The odds for the dice were figured mathematically and the probabilities for dart throwing were computed on 150 throws by McBer trainers when "cold" (McBer and Co., 1966).

There are two basic rounds to the game. The first round consists of six throws of either darts or dice. Once a player has decided which he wishes to throw, he may not change during the round. As stated previously, before each throw a player must make a bid, which is recorded along with the outcome on a record form. The second round, or Final round, is exactly the same as the Practice round in procedure. However, in the present research the Final round was played in a larger room with other contestants observing, cheering and kibitzing.

Scoring was based upon accuracy and completion of bid. Since the player can achieve only what he bids, ability to realistically estimate one's performance is the main factor in this performance variable. The final score was calculated by summing the bids that were not made and dividing the total by the number of trials. Thus the score closest to zero would be the score most indicative of moderate and realistic risk taking, and therefore, an indication of high n Ach.

Data Analysis

Treatment Consistency

In order to investigate whether the counselors had approached the contract method according to the predetermined content objectives, a sample of 39 of the tapes taken of the 48 interviews were examined for the presence of these six elements. A 5-minute excerpt from the
first half of each interview (after 5 minutes had elapsed) and a 5-minute excerpt from the second half of that interview (after 15 minutes) were judged on level of counselor expertness, trustworthiness, and attractiveness displayed. Correlations on the three judges' ratings were then computed and an average correlation for each of the three counselor characteristics was calculated. An interrater Reliability Coefficient was then reached for each characteristic and an estimated reliability (R) for a single measurement was computed to test the amount of agreement displayed by the judges in their ratings.

The Soupac Balanova Program (1972) was employed to perform three separate analyses of variance on the three counselor characteristics using the judges' ratings of each counselor on expertness, attractiveness, and trustworthiness as cell entries. The main purpose of these procedures was to see if the counselors differed significantly among themselves in the level of counselor characteristics that they displayed, but the question whether there might be a significant interaction between judges' ratings and counselors also could be answered with such a set of analyses.

Criteria Correlation, Association, and Analysis

All of the data obtained from the repeated administration of the 23 dependent variables were correlated in a 46 by 46 matrix by Finn's (1968) Multivariate Analysis of Variance (Manova) program. As a measure of the test-retest reliability of the 23 criteria taken as a whole, an option in Finn's program was employed to test the null hypothesis that there was no association between the pre- and the posttest measures. Finally, the pretest scores and the posttest data were rotated separately to the Verimax criterion to discover which factors accounted for the variance and what new factors, if any, emerged from the treatment. A Fortran IV Congruence Program developed by Schuerger (1973) correlated the pretest and the posttest factors so that those factors that purdured through the repeated measures design might be discovered.

Between-Groups Analyses: An analysis of covariance of each dependent variable individually and a Multivariate Analysis of Variance of the dependent variables as a group and in clusters

To determine whether the treatment had a significant effect and thus to test the first hypothesis, each variable was reduced to a pretest mean to investigate the presence of significant differences between groups and the posttest scores were analyzed for significant change, covarying the pretest data. Using Finn's (1968) Manova capabilities, a similar procedure was followed with groups of dependent variables, at first computing a pretest mean for all 23 variables and covarying the pretest in examining the posttest, and then clustering the dependent variables according to instrumental format (TAT, EPPS scales, Veroff subtests, Behavioral simulations) or to face
Validity (10 n Ach tests, 3 Power, 3 Affiliation, n Ach cluster) and subjecting them to a covariance analysis. To isolate with greater precision the variables exerting the greatest influence on the covariance comparison, the Discriminant Function Analysis Option on Finn's (1968) Manova program was used on all group analyses displaying significance.

Within-Groups Analyses: An Analysis of Variance of All Students Counseled on Interview Reaction Questionnaire Data and a Repeated-Measures Analysis of Variance on Experimental Group Alone.

Since all of the students in both experimental and control groups were assigned for counseling, a test of the second hypothesis concerning race and sex as influencing reactions to counseling was performed on the data received on the Interview Reaction Questionnaire.

Hypotheses 3, 4, 5, and 6 were tested by means of a Soupac Balanova Class B design (1972) performed on the 48 subjects comprising the experimental group. This factorial design is unique in that the cell members or subjects are nested in all the factors with the exception of the pre-post factor, thus fulfilling the Soupac definition of a repeated-measures design. The four factors in which the replication factor (48 subjects) is nested are the main factors of counselee race and counselee sex, and counselor race and counselor sex. In the tabulation of the results, the main effects of counselor race (hypothesis 3), counselor sex (hypothesis 4), counselee sex (hypothesis 5), and the interaction effect of counselor race and sex (hypothesis 6) are reported. Since the latter hypothesis would demand, in the case of significance, a further delineation of the means for the four combinations resulting from a Black and White, male and female interaction effect, a simpler t-test procedure was employed to contrast the subjects counseled by Black female counselors with those who had been counseled by White females. For this particular t-test, pretest results are reported, along with posttest results, so that a check for sample bias might be made. The test was one tailed to test for positive findings. The pre-post interaction with each of the main factors bearing on a hypothesis is reported with that factor in order to discover whether significant changes took place as a result of the treatment, and if so, the directionality of that change.

Significant changes not bearing directly on the stated hypotheses are reported in a separate table for heuristic purposes but are not considered as results that should be interpreted.
CHAPTER 4

RESULTS

Homogeneity and Consistency of the Treatment

Content Analyses of the Counseling Interviews

In order to determine whether the same basic material was discussed in each counseling session, tape recordings of 39 of the original 48 sessions were examined by two judges for the presence of the following counselor behaviors:

1. A greeting of and continuing reference to the counselee on a first-name basis. (Attractiveness)

2. A complete and thorough explanation of the contract method as it applied to this particular counselee. (Expertness)

3. An agreement, through discussion, on a particular task to be accomplished or skill to be developed, as well as a specific time to be spent in the accomplishment of the specific task or development of the particular skill. (Expertness)

4. The assurance that this one-week contract would be followed up by another session to check progress made and make any modifications in the contract that might be needed. (Trustworthiness)

5. A presentation of the contract as a voluntary commitment on the part of the student and not as an obligation forced upon the counselee. (Trustworthiness)

6. An expression of the conviction that the contract method has been shown to be effective in acquiring academic skills and will be beneficial to the counselee. (Expertness)

As shown in Table 1, all but four sessions in the sample found the counselor addressing the counselee by first name. The explanation and negotiation of the contract, the most essential element in the interview, was present in every session. An attempt to narrow the object of this contract down to a specific skill to be worked on at
Table 1
Content Analysis of the Counseling Interviews

<table>
<thead>
<tr>
<th>Interview</th>
<th>First Name</th>
<th>Contract</th>
<th>Specific Skills</th>
<th>Follow-up</th>
<th>Voluntary</th>
<th>Effective Method</th>
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Note: An X in the column indicates that evidence for its presence in the interview was found in the examination of the tape.
an agreed-upon time during the remaining week was evident in all but one session, the transcription of which was incomplete because of faulty tape. The same session was the only one that lacked a reference to follow-up, to the voluntariety of the contract, and to an expressed conviction of the contract method's effectiveness in developing study skills and raising academic achievement.

Correlations and Reliability of the Three Judges' Ratings on the Manner in Which the Interviews Were Conducted

Pearson product moment correlations of ratings by the three judges on the degree of expertness, trustworthiness, and attractiveness shown were computed (Winer, 1962, p. 130) and compared for homogeneity of counselor approach.

Table 2 displays the correlations between pairs of raters on their judgments of the amount of expertness, trustworthiness, and attractiveness (judged on the 8-point scales contained in Appendix K) evidenced by the counselor in each session. It also displays the average correlation between judges.

The mean of each judge's ratings and the grand mean for all judges on the counselor behavior being rated is presented in Table 3.

The mean ratings of all judges, as well as the overall means for each counseling manner, lie between those scales that describe the counselor as "moderately" to "very" Expert, Trustworthy, and Attractive. (Appendix K)

Interrater reliability of the three judges on the three scales was also computed. Analysis of variance and the Spearman-Brown prediction formula as compiled in the Fortran IV program (NRR) by Wherry and Olivero (1971, p. 33) were used to estimate the reliability of K (3) judges over N (39) interviews (Winer, 1962, pp. 124-132). The analysis of variance was used to compute an estimate of the reliability of a single rating. This estimate was then used to estimate the reliability (R) of the mean of any number of comparable ratings. The interrater reliability of the three judges is displayed in Table 4, along with an estimate for the reliability (R) of a single measurement.

Analysis of Variance Between Counselors Based on Judges' Ratings of Counselor Expertness, Trustworthiness, and Attractiveness

Soupac Balanova analysis (1972) was performed on the ratings given each of the 12 counselors by the three judges on the degree of expertness, trustworthiness and attractiveness they displayed in their respective interviews. The purpose of the analysis was to test for significant differences between counselors on the manner in which they counseled their clients. Factor A (clients)
Table 2
Correlations of the Ratings by Three Judges on the Amount of Expertness, Trustworthiness, and Attractiveness Shown by the Counselors in 39 Interviews

<table>
<thead>
<tr>
<th></th>
<th>Intercorrelations Between Pairs of Judges</th>
<th>Average Correlations Between Pairs of Judges</th>
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<tbody>
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<td>Judge 1</td>
<td>Judge 2</td>
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<td>Expertness</td>
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<td>Judge 3</td>
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<td>.62</td>
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<tr>
<td>Attractiveness</td>
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<tr>
<td>Judge 2</td>
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<td></td>
</tr>
<tr>
<td>Judge 3</td>
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</tr>
<tr>
<td>Judge 3</td>
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<td>.72</td>
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Table 3
Mean Ratings for Judges on Expertness, Trustworthiness and Attractiveness

<table>
<thead>
<tr>
<th></th>
<th>Expertness</th>
<th>Trustworthiness</th>
<th>Attractiveness</th>
</tr>
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<td>Judge 1</td>
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<td>6.17</td>
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<td>6.12</td>
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<tr>
<td>Judge 3</td>
<td>6.17</td>
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</tr>
<tr>
<td>Grand Mean</td>
<td>6.17</td>
<td>6.76</td>
<td>6.11</td>
</tr>
<tr>
<td></td>
<td>On 39 Sessions</td>
<td>Adjusted for Mean Differences</td>
<td>Estimate of (R) Based on Single Measurement</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td><strong>R (K)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Expertness</td>
<td>.92</td>
<td>.92</td>
<td>.79</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>.81</td>
<td>.82</td>
<td>.58</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>.81</td>
<td>.82</td>
<td>.59</td>
</tr>
</tbody>
</table>
is the replication factor and has an unequal number of levels for each combination of levels of Factor B (counselors) in which it is nested. This resulted because only 39 of the 48 sessions were rated, and thus some counselors were rated fewer times than others, although all counselors were represented in the sample submitted to the judges. Since there were three ratings (Factor C) by three different judges for each interview, the number of levels are proportional and hence the design is balanced. The analysis of variance is exact except for truncation and rounding errors. Since the purpose of the analysis was to test the homogeneity of counselor treatment in terms of expertness, trustworthiness and attractiveness, and since Factor C (judges' ratings) and Factor B X C (interaction between counselors and judges' ratings) generated an insignificant sum of squares for all three counselor characteristics, only the "between" counselor factor (Factor B) with its error term (Factor A) are shown in Table 5. The table includes the analysis of all three counselor characteristics so that the homogeneity of the counselor's counseling manner may be inspected for each aspect rated. It thus may be more easily seen that no significant difference was discovered between counselors for either expertness, trustworthiness, or attractiveness.

Table 5

Analysis of Variance for Counselor Characteristics

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob.</th>
</tr>
</thead>
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<td>4.73</td>
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<td>.93</td>
<td>.53</td>
</tr>
<tr>
<td>Clients (A)</td>
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<td>12.50</td>
<td>.46</td>
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<td></td>
</tr>
<tr>
<td>Trustworthiness (B)</td>
<td>11</td>
<td>4.32</td>
<td>.39</td>
<td>.65</td>
<td>.76</td>
</tr>
<tr>
<td>Clients (A)</td>
<td>27</td>
<td>16.30</td>
<td>.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attractiveness (B)</td>
<td>11</td>
<td>3.39</td>
<td>.30</td>
<td>.94</td>
<td>.52</td>
</tr>
<tr>
<td>Clients (A)</td>
<td>27</td>
<td>8.83</td>
<td>.33</td>
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</table>

Association, Correlation, and Factor Analysis of the Criterion Variables

Reliability as it refers to the ability of observers to make the same or similar judgment on the same occasion has been spoken of in the section dealing with interrater reliability. For convenience and ease of understanding, the degree of agreement between
scores obtained on the pretest with those on the posttest will be reported as association. McClelland (Atkinson, 1958) maintains that the measurements of motivation present certain problems for test-retest reliability because the motives of the individual, his views of the test and the administrator must be the same on the second occasion as they were on the first. It was considered to be of value, therefore, to test the null hypothesis that there was no association shown between the pretest scores and their corresponding posttest scores on all 23 dependent variables. Using Finn's (1968) Manova program, the pretest scores were programmed as the independent variables and covaried as a complete group to test for the probability of association with the dependent variables represented by the posttest scores. The $F$ value for the test of the hypothesis that there was no association between the dependent and independent variables, at 529 and 722 degrees of freedom, was 2.1660. The probability, therefore, that there was no association between the pre- and posttest scores on all 23 variables under multivariate analysis was less than .0001. (See Table 12)

In delineating the criteria for measures of motivation, McClelland (in Atkinson, 1958) asserts that "relational fertility" is the "... ultimate criterion of whether a measure survives in the competition for attention in the marketplace of scientific variables, since the purpose of science is to account for as much of what takes place with as few variables and assumptions as possible" (p. 20). His notion of relational fertility differs from validity in that he considers the latter to be an instance of the former.

Although he considers a determination of a criterion's validity based on correlation with some other "truer" measure to be an inaccurate procedure, he does consider correct an assessment of the validity of the measure in terms of the number and extent of its connections to other theoretically-related variables, among which may be the truer measure (McClelland, 1957). Cronbach and Meehl (1955) have been of the opinion for some time that it is the extent or richness of the network of associations within which a construct occurs that determines its validity, not that it happens to correlate with something which may be regarded as a "truer" measure. Therefore, an inspection of the network of correlations among the criteria was made via Finn's (1968) Manova program and is displayed in Table 6. The matrix presented includes the 23 variables given as a repeated measure, with the 8 EPPS variables, Pre and then Post, displayed to facilitate comparison at the bottom of the matrix.

Since the retest reliability of many of the measures used in this study has come under question in the literature, the correlations of each measure with its posttest has been taken from the matrix and placed in a separate table (Table 7). The low
Correlation Matrix of the Pre and Post Measures Taken on the 23 Criterion Variables

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<th>Pre-test/Post test</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAT Verbal Nach</td>
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<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale EPSS Nach</td>
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<td>0.06</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Feeling Nach</td>
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<td>0.26</td>
<td>0.56</td>
<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>Graph Nach</td>
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<td>0.08</td>
<td>0.79</td>
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<td>1.00</td>
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</tr>
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<td>0.49</td>
<td>0.59</td>
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<td>-0.09</td>
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<td>0.06</td>
<td>0.02</td>
<td>0.02</td>
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<td>0.20</td>
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<td>0.38</td>
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<td>-0.06</td>
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### Table 7
Retest Reliability Coefficients of the Criteria

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correlations of the TAT measures provide another instance of this recurring phenomenon while the comparatively high retest relationships manifested by all the individual Poland EPPS measures present convincing evidence for the reliability of this particular format. The Darts and Dice demonstrated considerably higher consistency than the Ring Toss behavioral test, and the objective measures, like their intercorrelations, were mixed in the strength of the relationship they demonstrated, though all the r's were positive.

In order to examine interrelationships among measures, the pretest and posttest matrices were each factor-analyzed and rotated to the Varimax criterion. The factors were named and are listed according to their component variables and their factor loadings in Table 8. The customary ±.3 loading was used as the cutoff point for determining membership in a factor. After the factors, a listing of the amount and percentages of variance accounted for by each factor is presented.

To illustrate the factors that perdured through the repeated measures design and thus point out the continuity manifested within the experimental design, Table 9 presents the congruence coefficients generated by correlating the pretest and posttest factors. Those factors showing > .50 relationship were considered to be sufficiently similar to one another in their makeup to merit designation as General Factors in the table.

Covariance Analysis of the Criterion Variables used in Pre-Post Testing of the Members of the Experimental, Control, and Comparison Groups

Although the students in the experimental and control groups were in the same specialized program for underachieving students—and were randomly assigned to their respective groups, some of the members of the comparison group were not from the special education project and thus did not necessarily meet all of the qualifications that were considered prerequisite to membership in the experimental and control groups. As Bock (1974) recommends for such a repeated-measures design, the posttest was analyzed using the pretest as a covariate. Table 10 displays pretest, posttest, and covariance adjusted means for the three groups on each of the 23 variables. The criterion variables are listed according to the names given in Chapter 3 and significance at the .05, .01, .001 and .0001 levels is noted by asterisks placed after the mean score of the experimental (No. 1) group. The control group is the No. 2 group, with the comparison section listed as the No. 3 group in the table.

Finally, to determine which variables showed increase in the experimental group posttest, results from Table 6 and Table 10 were combined to show which measures appeared to respond positively to the treatment (Table 11). The reliability coefficient computed
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**Posttest Factors**

Factor 1: Autonomy-Dominance-Sex

Autonomy  .76  Practice Darts  .86  TAT Verbal n Ach  .69
Dominance .75  Final Darts  .83  Deference  .64
Heterosexuality .66  Context Power  .52  Graph n Ach  .55
Aggression .47  Context n Ach  -.42  Intraception  .49
Intraception .36  Scale EPPS n Ach  .32  Aggression  -.43
Feeling n Ach .35  TAT Power  .77  Order  .85  TAT Verbal Aff  .65
TAT Verbal Aff -.31  TAT n Ach  .68  EPPS n Ach  .58  Feeling n Ach  .57

Factor 2: Darts-Context Power

Factor 3: Verbal n Ach-Deference

Factor 4: TAT Power-n Ach

Factor 5: Order-EPPS n Ach

Factor 6: Verbal Aff-Feeling-Scale n Ach

TAT Power  .77  Order  .85  TAT Verbal Aff  .65
TAT n Ach  .68  EPPS n Ach  .58  Feeling n Ach  .57
Intraception .35  Aggression  .32  Scale EPPS n Ach  .56
Aggression -.38  Deference  .31  TAT Aff  .44
Heterosexuality -.32  Graph n Ach  .30  Graph n Ach  .41
Context Power -.32  Feeling n Ach  -.34

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* Coefficients considered to be of General Factor magnitude.
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* .05  
** .01  
*** .001  
**** .0001  

Group 1 - Experimental Sample  
Group 2 - Control Sample  
Group 3 - Comparison Sample
Table 11
Correlation of Variables Showing Positive Posttest Results in the Experimental Group

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for each test is omitted so that the resulting diagonal might more graphically separate the pretest intercorrelations in the right section from the corresponding posttest intercorrelations on the lower left. This table was included in the results not to prepare for the section on group analyses, the design of which preceded the findings of Table 11, but rather for heuristic purposes, to encourage future multivariate studies on counseling outcome.

Multivariate Analysis of Covariance (CANOVA) on Clustered Pre-Posttest Scores of the Experimental, Control, and Comparison Groups

Among the options available in Multivariance (Finn, 1968) is the capability of analyzing as a vector a set or selected subset of test scores gained from one sample and contrasting this dependent variable combination with parallel test score vectors obtained from other groups. The Multivariance method then considers all the scores of each group simultaneously and applies the appropriate criteria in order to test the hypotheses for any crossed and/or nested design. Multivariate Analysis of Covariance's (CANOVA) flexibility permits the number of observations in the subclasses to be equal, proportional, or disproportionate (Finn, 1968, p. 5).

In this set of analyses a model of rank 3 (Finn's terminology for an analysis between three groups) to correspond with the experimental, control, and comparison levels was used as the basic design. All of the 23 variables were then used as the basic design. All of the 23 variables were then contrasted across the three groups, with the pretest scores designated as covariates. Then the 10 n Ach tests, 6 TAT projective instruments, the 3 Power tests, the 9 EPPS scales, 3 Affiliation measures, 3 Behavioral exercises, the 3 contextual measures, and finally the Feeling n Ach-Graph n Ach-Context n Ach combination were analyzed in the same way in order to discover which, if any, of the measures changed significantly as a cluster of variables. The program performed a regression analysis prior to the analysis of covariance in each case to test the hypothesis of no association between the covariates and the posttest measures. Table 12 displays for each variable set the results for the test of both hypotheses: 1) the hypothesis of no association between the covariates and the posttest measures, and 2) the hypothesis that the mean vectors of the three groups with the pretest covariates eliminated were equal.

In order to more graphically point to the change in the experimental group, Table 13 displays the adjusted means of Table 10 for each subset that changed significantly (Table 12) from Pre to Post measurement. The means for the control (C) and
Table 12
Multivariate Analysis of Covariance on Clustered Pre-Posttest Scores of
the Experimental, Control, and Comparison Groups

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Table 13

Position of Experimental Mean in Significantly Covaried Variable Subsets

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<th>Variable Subset</th>
<th>High</th>
<th>Middle</th>
<th>Low</th>
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<tbody>
<tr>
<td><strong>10 n Ach Tests (Sig. &lt; .0136)</strong></td>
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<td></td>
</tr>
<tr>
<td>TAT n Ach</td>
<td>.4(C), .1(P), -02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAT Verbal n Ach</td>
<td>-1.1(P), -2.4(C), -2.9**</td>
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</tr>
<tr>
<td>Scale EPPS n Ach</td>
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<tr>
<td>Feeling n Ach</td>
<td>3.0(P), 2.8, 2.3(C)</td>
<td></td>
<td>5.9(P), 5.7(C), 5.6</td>
</tr>
<tr>
<td>Graph n Ach</td>
<td>3.3(C), 2.6, 2.2(P)</td>
<td></td>
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</tr>
<tr>
<td>Context n Ach</td>
<td>34.0(C), 31.0, 16.1(P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Darts</td>
<td>32.3, 2.94(C), 18.3(P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Darts</td>
<td>19.2(C), 16.1****, .24(P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ring Toss</td>
<td>64.8(C), 62.8, 60.0(P)</td>
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<td>EPPS n Ach</td>
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<tr>
<td><strong>6 TAT (Sig. &lt; .0008)</strong></td>
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<tr>
<td>TAT n Ach</td>
<td>.4(C), .1(P), -02</td>
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</tr>
<tr>
<td>TAT Verbal n Ach</td>
<td>3.9(C), 3.6**, 1.5(P)</td>
<td>1.1(P), -2.4(C), -2.9**</td>
<td></td>
</tr>
<tr>
<td>TAT Power</td>
<td>2.5***, 1.7(C), .3(P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAT Verb. Power</td>
<td>1.1(C), .82*, .08(P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAT Aff</td>
<td>.83, .66(C), .34(P)</td>
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</tr>
<tr>
<td>TAT Verb. Aff</td>
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<td></td>
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<tr>
<td><strong>3 Power (Sig. &lt; .0018)</strong></td>
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<tr>
<td>TAT Power</td>
<td>3.9(C), 3.6**, 1.5(P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAT Verb. Power</td>
<td>2.5***, 1.7(C), .3(P)</td>
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</tr>
<tr>
<td>Context Power</td>
<td>1.9(P), 1.8, 1.2(C)</td>
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</tbody>
</table>
Table 13 (Continued)

### 3 Affiliation (Sig. < .0228)

<table>
<thead>
<tr>
<th>TAT Aff</th>
<th>1.1(C), .82**, .08(P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT Verb. Aff</td>
<td>.83, .66(C), .34(P)</td>
</tr>
<tr>
<td>Context Aff</td>
<td>2.9(P), 2.7(C), 2.6</td>
</tr>
</tbody>
</table>

### 3 Behavioral (Sig. < .0111)

| Practice Darts | 34.0(C), 31.1, 16.1(P) |
| Final Darts | 32.3, 29.4(C), 18.3 |
| Ring Toss | 19.2(C), 16.1****, .24(P) |

### 3 n Ach Cluster (Sig. < .0572)

| Feeling n Ach | 3.0(P), 2.8, 2.3(C) |
| Graph n Ach | 3.3(C), 2.6, 2.2(P) |
| Context n Ach | 5.9(P), 5.7(C), 5.6 |

*<.05  
**<.01  
***<.001  
****<.0001  

(C) = Control Group  
(P) = Comparison Group
comparison (P) samples will be ranked with the experimental mean in ascending or descending order, with asterisks after the experimental mean denoting the level of significance, if any, attached to that variable.

A series of Discriminant Function Analyses are shown in Tables 14 through 19 to aid in the interpretation of the significant group analyses. The loadings on the factors within each group allow for a closer examination of the covariance adjusted means of Table 12, and thus a more calculated appraisal of the effect each of the three groups exercised on the significant multivariate cluster analysis.

Analysis of Counselor Session Reactions

The Interview Reaction Questionnaire was filled out by every student counseled; members of the control group as well as the experimental group. Appendix R shows the number of subjects in each cell involved in the analyses. A univariate Balanova (1972) analysis was used on each of the four tests in the Interview Reaction Questionnaire to discern whether significant differences in the ratings existed as a result of race and sex of counselor or counselee. The 2x2x2x2 nested design employed in the analysis of variance contains the following factors:

A = race of counselor
B = sex of counselor
C = race of counselee
D = sex of counselee

Means are displayed below the summary table only when the significance level is .10 or less. (Table 20)

Analysis of the Influence of Counselor Race and Sex and Counselee Sex on the Pretest and Posttest Criterion Scores of the Experimental Group

Table 21 illustrates the main factors bearing upon the hypotheses and their Pre-Post interactions along with the appropriate error term for each of these sources of variance and the degrees of freedom used in computing the individual mean squares.

Since the tests for hypotheses 3, 4, 5 and 6 (Chapter 3) are contingent on the analysis of Factors C (race of counselor for hypothesis 3), D (sex of counselor for hypothesis 4), B (sex of counselee for hypothesis 6), and the interaction C x D (race and sex of counselor for hypothesis 5) and their interactions with the Pre-Post Factor E (D x E, C x E, B x E, and C x D x E), only these results are displayed in Tables 22, 23, and 26 respectively. Only where significance at < .05 level
Table 14

Discriminant Function Analysis for Significantly Covaried Clustered Pre-Post Group Analyses

Variance of Canonical Variate: 1 = 0.50 \hspace{1cm} \text{Percent of Canonical Variation} = 78.95 \hspace{1cm} \text{Roy's Criterion} = 0.33 \hspace{1cm} M = 3.5 \hspace{1cm} N = 31.5

Discriminant Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT n Ach</td>
<td>0.04</td>
<td>0.08</td>
</tr>
<tr>
<td>TAT Verbal n Ach</td>
<td>0.29</td>
<td>0.62</td>
</tr>
<tr>
<td>Scale EPPS n Ach</td>
<td>-0.53</td>
<td>-0.56</td>
</tr>
<tr>
<td>Feeling n Ach</td>
<td>0.07</td>
<td>0.11</td>
</tr>
<tr>
<td>Graph n Ach</td>
<td>0.51</td>
<td>0.91</td>
</tr>
<tr>
<td>Context n Ach</td>
<td>-0.17</td>
<td>-0.23</td>
</tr>
<tr>
<td>Practice Darts</td>
<td>0.00</td>
<td>0.03</td>
</tr>
<tr>
<td>Final Darts</td>
<td>0.01</td>
<td>0.24</td>
</tr>
<tr>
<td>Ring Toss</td>
<td>-0.71</td>
<td>-0.71</td>
</tr>
<tr>
<td>EPPS n Ach</td>
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<td>-0.35</td>
</tr>
</tbody>
</table>

Variance of Canonical Variate: 2 = 0.13 \hspace{1cm} \text{Percent of Canonical Variation} = 21.05 \hspace{1cm} \text{Roy's Criterion} = 0.12 \hspace{1cm} M = 4.0 \hspace{1cm} N = 31.0

Discriminant Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT n Ach</td>
<td>0.29</td>
<td>0.57</td>
</tr>
<tr>
<td>TAT Verbal n Ach</td>
<td>0.19</td>
<td>0.40</td>
</tr>
<tr>
<td>Scale EPPS n Ach</td>
<td>0.27</td>
<td>0.29</td>
</tr>
<tr>
<td>Feeling n Ach</td>
<td>-0.23</td>
<td>-0.37</td>
</tr>
<tr>
<td>Graph n Ach</td>
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<td>0.11</td>
</tr>
<tr>
<td>Context n Ach</td>
<td>0.40</td>
<td>0.53</td>
</tr>
<tr>
<td>Variable</td>
<td>Raw Coefficient</td>
<td>Standardized</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Practice Darts</td>
<td>0.00</td>
<td>0.03</td>
</tr>
<tr>
<td>Final Darts</td>
<td>-0.01</td>
<td>-0.19</td>
</tr>
<tr>
<td>Ring Toss</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>EPPS n Ach</td>
<td>-0.02</td>
<td>-0.51</td>
</tr>
</tbody>
</table>
Table 15

Discriminant Function Analysis for TAT Variables

Variance of Roy's Criterion = 0.31
Canonical Variate: 1 = 0.45 Percent of Canonical Variation = 84.91 M = 1.5 N = 35.5

Discriminant Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT n Ach</td>
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<td>0.09</td>
</tr>
<tr>
<td>TAT Verbal n Ach</td>
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</tr>
<tr>
<td>TAT Power</td>
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</tr>
<tr>
<td>TAT Verbal Power</td>
<td>-0.19</td>
<td>-0.36</td>
</tr>
<tr>
<td>TAT Affiliation</td>
<td>-0.44</td>
<td>-0.54</td>
</tr>
<tr>
<td>TAT Verbal Aff.</td>
<td>-0.23</td>
<td>-0.24</td>
</tr>
</tbody>
</table>

Variance of Roy's Criterion = 0.07
Canonical Variate: 2 = 0.08 Percent of Canonical Variation = 15.09 M = 2.0 N = 35.0

Discriminant Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT n Ach</td>
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<td>0.54</td>
</tr>
<tr>
<td>TAT Verbal n Ach</td>
<td>0.21</td>
<td>0.44</td>
</tr>
<tr>
<td>TAT Power</td>
<td>0.17</td>
<td>0.37</td>
</tr>
<tr>
<td>TAT Verbal Power</td>
<td>-0.31</td>
<td>-0.60</td>
</tr>
<tr>
<td>TAT Affiliation</td>
<td>0.12</td>
<td>0.15</td>
</tr>
<tr>
<td>TAT Verbal Aff.</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Table 16

Discriminant Function Analysis for Power Variables

Variance of Canonical Variate: 1 = 0.21  Percent of Canonical Variation = 74.26  Roy's Criterion = 0.18  M = 0.0  N = 38.5

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT Power</td>
<td>0.14</td>
<td>0.18</td>
</tr>
<tr>
<td>TAT Verbal Power</td>
<td>-0.41</td>
<td>-0.94</td>
</tr>
<tr>
<td>Context Power</td>
<td>-0.10</td>
<td>-0.21</td>
</tr>
</tbody>
</table>

Variance of Canonical Variate: 2 = 0.07  Percent of Canonical Variation = 25.74  Roy's Criterion = 0.07  M = 0.5  N = 38.0

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT Power</td>
<td>0.47</td>
<td>0.63</td>
</tr>
<tr>
<td>TAT Verbal Power</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>Context Power</td>
<td>0.36</td>
<td>0.73</td>
</tr>
</tbody>
</table>
Table 17

Discriminant Function Analysis for Affiliation Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT Aff.</td>
<td>0.28</td>
<td>0.36</td>
</tr>
<tr>
<td>TAT Verbal Aff.</td>
<td>-0.60</td>
<td>-0.73</td>
</tr>
<tr>
<td>Context Aff.</td>
<td>-0.47</td>
<td>-0.48</td>
</tr>
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</table>

Variance of Canonical Variate: 1 = 0.18
Percent of Canonical Variation = 89.20
Roy's Criterion = 0.15
M = 0.0  N = 38.5

Discriminant Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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<td>0.66</td>
</tr>
<tr>
<td>Context Aff.</td>
<td>-0.47</td>
<td>-0.48</td>
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</table>

Variance of Canonical Variate: 2 = 0.02
Percent of Canonical Variation = 10.80
Roy's Criterion = 0.02
M = 0.5  N = 38.0
Table 18

Discriminant Function Analysis for Behavioral Variables

Variance of Canonical Variate: 1 = 0.20  Percent of Canonical Variation = 90.59  Roy's Criterion = 0.17  M = 0.0  N = 38.5

Discriminant Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
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<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Darts</td>
<td>-0.01</td>
<td>-0.10</td>
</tr>
<tr>
<td>Final Darts</td>
<td>-0.01</td>
<td>-0.13</td>
</tr>
<tr>
<td>Ring Toss</td>
<td>1.07</td>
<td>1.04</td>
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</table>

Variance of Canonical Variate: 2 = 0.02  Percent of Canonical Variation = 9.41  Roy's Criterion = 0.02  M = 0.5  N = 38.0

Discriminant Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Darts</td>
<td>0.01</td>
<td>0.19</td>
</tr>
<tr>
<td>Final Darts</td>
<td>-0.06</td>
<td>-0.11</td>
</tr>
<tr>
<td>Ring Toss</td>
<td>0.10</td>
<td>0.10</td>
</tr>
</tbody>
</table>
Table 19

Discriminant Function Analysis for n Ach Cluster

<table>
<thead>
<tr>
<th>Canonical Variate: 1 = 0.16</th>
<th>Percent of Canonical Variation = 98.69</th>
<th>Roy's Criterion = 0.14</th>
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</tbody>
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<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling n Ach</td>
<td>-0.24</td>
<td>-0.39</td>
</tr>
<tr>
<td>Graph n Ach</td>
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<td>-0.57</td>
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<tr>
<td>Context n Ach</td>
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<td>1.16</td>
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</table>

<table>
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<tr>
<th>Canonical Variate: 2 = 0.00</th>
<th>Percent of Canonical Variation = 1.31</th>
<th>Roy's Criterion = 0.00</th>
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</thead>
<tbody>
<tr>
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<td>N = 38.0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Raw Coefficient</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling n Ach</td>
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<td>1.02</td>
</tr>
<tr>
<td>Graph n Ach</td>
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<td>-0.95</td>
</tr>
<tr>
<td>Context n Ach</td>
<td>0.13</td>
<td>0.18</td>
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</tbody>
</table>
Table 20

Analysis of Interview Reaction Questionnaire Results

<table>
<thead>
<tr>
<th>Source</th>
<th>D.F.</th>
<th>SS</th>
<th>Mean Square</th>
<th>F-ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anova Summary Table for Anxiety Arousal</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1</td>
<td>.16</td>
<td>.16</td>
<td>.04</td>
<td>.85</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>19.62</td>
<td>9.81</td>
<td>2.37</td>
<td>.10</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>10.63</td>
<td>2.66</td>
<td>.64</td>
<td>.63</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
<td>26.39</td>
<td>3.30</td>
<td>.80</td>
<td>.61</td>
</tr>
<tr>
<td>E</td>
<td>50</td>
<td>206.86</td>
<td>4.14</td>
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<td></td>
</tr>
</tbody>
</table>

Means of B factor (Sex of Counselor)
- Black female counselor: 9.12
- Black male counselor: 9.88
- White female Counselor: 10.49
- White male counselor: 8.75

**Anova Summary Table for Achievement Choice**

<table>
<thead>
<tr>
<th>Source</th>
<th>D.F.</th>
<th>SS</th>
<th>Mean Square</th>
<th>F-ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>1.27</td>
<td>1.27</td>
<td>.09</td>
<td>.77</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>8.47</td>
<td>4.24</td>
<td>.29</td>
<td>.75</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>18.68</td>
<td>4.67</td>
<td>.32</td>
<td>.86</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
<td>45.88</td>
<td>5.74</td>
<td>.39</td>
<td>.92</td>
</tr>
<tr>
<td>E</td>
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<td>735.54</td>
<td>14.71</td>
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</tbody>
</table>

**Anova Summary Table for Counselor Evaluation through Grading**

<table>
<thead>
<tr>
<th>Source</th>
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<th>SS</th>
<th>Mean Square</th>
<th>F-ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>54.63</td>
<td>54.63</td>
<td>.35</td>
<td>.55</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>163.84</td>
<td>81.92</td>
<td>.53</td>
<td>.59</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>124.01</td>
<td>31.00</td>
<td>.20</td>
<td>.94</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
<td>594.54</td>
<td>74.32</td>
<td>.48</td>
<td>.86</td>
</tr>
<tr>
<td>E</td>
<td>50</td>
<td>7703.68</td>
<td>154.07</td>
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</tbody>
</table>

**Anova Summary Table of Counselor Evaluation through Comments**

<table>
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<th>SS</th>
<th>Mean Square</th>
<th>F-ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
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<td>.22</td>
<td>.22</td>
<td>.12</td>
<td>.72</td>
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<tr>
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<td>3.95</td>
<td>1.97</td>
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<tr>
<td>C</td>
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<td>.91</td>
<td>.23</td>
<td>.13</td>
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<td>D</td>
<td>8</td>
<td>25.63</td>
<td>3.20</td>
<td>1.81</td>
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<tr>
<td>E</td>
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<td>1.77</td>
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</tr>
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</table>

A factor = Race of Counselor
B factor = Sex of Counselor
C factor = Race of Counselee
D factor = Sex of Counselee
Table 20 (Continued)

Means of D factor (Sex of Counselee)

<table>
<thead>
<tr>
<th>Counselee Combination</th>
<th>Black Female Counselor</th>
<th>Black Male Counselor</th>
<th>White Female Counselor</th>
<th>White Male Counselor</th>
</tr>
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<tbody>
<tr>
<td>Black Female Counselee with Black Female Counselor</td>
<td>2.71</td>
<td>1.33</td>
<td>1.57</td>
<td>3.16</td>
</tr>
<tr>
<td>Black Male Counselor</td>
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<tr>
<td>White Female Counselor</td>
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</tr>
<tr>
<td>White Male Counselor</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>White Female Counselee with Black Female Counselor</td>
<td>3.00</td>
<td>3.33</td>
<td>2.00</td>
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</tr>
<tr>
<td>Black Male Counselor</td>
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<tr>
<td>White Female Counselor</td>
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</tr>
<tr>
<td>White Male Counselor</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Black Male Counselee with Black Female Counselor</td>
<td>2.57</td>
<td>2.50</td>
<td>2.67</td>
<td>1.33</td>
</tr>
<tr>
<td>Black Male Counselor</td>
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</tr>
<tr>
<td>White Female Counselor</td>
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<tr>
<td>White Male Counselor</td>
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<td>0.00</td>
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<td>White Female Counselor</td>
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<tr>
<td>White Male Counselor</td>
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Table 21
Factors in the Analysis of Variance of the Experimental Group on the 23 Criterion Variables

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<thead>
<tr>
<th>Source</th>
<th>Denominator</th>
<th>D.F. (Num.)</th>
<th>D.F. (Den.)</th>
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<tbody>
<tr>
<td>A (Black-White Counselee)</td>
<td>F</td>
<td>1</td>
<td>32</td>
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<tr>
<td>B (Male-Female Counselee)</td>
<td>F</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>C (Black-White Counselor)</td>
<td>F</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>D (Male-Female Counselor)</td>
<td>F</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>AxB  (Race of Counselee by Sex of Counselor)</td>
<td>F</td>
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<td>32</td>
</tr>
<tr>
<td>AxC  (Race of Counselee by Race of Counselor)</td>
<td>F</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>AxD  (Race of Counselee by Sex of Counselor)</td>
<td>F</td>
<td>1</td>
<td>32</td>
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<tr>
<td>BxC  (Sex of Counselee by Race of Counselor)</td>
<td>F</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>BxD  (Sex of Counselee by Sex of Counselor)</td>
<td>F</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>CxD  (Race of Counselor by Sex of Counselor)</td>
<td>F</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>AxBxC (Race and Sex of Counselee by Race of Counselor)</td>
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<td>32</td>
</tr>
<tr>
<td>AxBxD (Race and Sex of Counselee by Sex of Counselor)</td>
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<td>1</td>
<td>32</td>
</tr>
<tr>
<td>AxCxD (Race of Counselee by Race and Sex of Counselor)</td>
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<td>32</td>
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<td>BxCxD (Sex of Counselee by Race and Sex of Counselor)</td>
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<td>32</td>
</tr>
<tr>
<td>AxBxCxD (Race and Sex of Counselee by Race and Sex of Counselor)</td>
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<td>32</td>
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<tr>
<td>F Nested in A, B, C, D</td>
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<td>32</td>
</tr>
<tr>
<td>E (Pre-Post)</td>
<td>ExF</td>
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<td>32</td>
</tr>
<tr>
<td>AxE (Race of Counselee by Pre-Post)</td>
<td>ExF</td>
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<td>32</td>
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<tr>
<td>BxE (Sex of Counselee by Pre-Post)</td>
<td>ExF</td>
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<td>32</td>
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<tr>
<td>CxE (Race of Counselor by Pre-Post)</td>
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<td>32</td>
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<tr>
<td>DxE (Sex of Counselor by Pre-Post)</td>
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<td>32</td>
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<tr>
<td>AxBxE (Race and Sex of Counselee by Pre-Post)</td>
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<td>32</td>
</tr>
<tr>
<td>AxCxE (Race of Counselee and Counselor by Pre-Post)</td>
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<tr>
<td>AxDxE (Race of Counselee and Sex of Counselor by Pre-Post)</td>
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<tr>
<td>BxCxE (Sex of Counselee and Race of Counselor by Pre-Post)</td>
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<td>BxDxE (Sex of Counselee and Counselor by Pre-Post)</td>
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<td>CxDxE (Race and Sex of Counselor by Pre-Post)</td>
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<tr>
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<td>32</td>
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<tr>
<td>AxCxDxE (Race of Counselee and Race and Sex of Counselor by Pre-Post) ExF</td>
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<td>32</td>
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</tr>
<tr>
<td>BxCxDxE (Sex of Counselee and Race and Sex of Counselor by Pre-Post) ExF</td>
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Table 22
Main Effect (C) and Pre-Posttest Interaction (CxE)
Resulting from Race of Counselor

<table>
<thead>
<tr>
<th>Variable</th>
<th>Main Effect</th>
<th>Interaction</th>
<th>Pretest Means</th>
<th>Posttest Means</th>
</tr>
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<tr>
<td>TAT n Ach</td>
<td>C = .63</td>
<td>CxE = .57</td>
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<td></td>
</tr>
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<td>TAT Verb. n Ach</td>
<td>C = .66</td>
<td>CxE = .40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPPS Scale n Ach</td>
<td>C = .51</td>
<td>CxE = .30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling n Ach</td>
<td>C = .88</td>
<td>CxE = .98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graph n Ach</td>
<td>C = .16</td>
<td>CxE = .20</td>
<td></td>
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</tr>
<tr>
<td>Context n Ach</td>
<td>C = .12</td>
<td>CxE = .16</td>
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<td>Context Aff.</td>
<td>C = .14</td>
<td>CxE = .37</td>
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<td>Context Power</td>
<td>C = .79</td>
<td>CxE = .68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAT Power</td>
<td>C = .93</td>
<td>CxE = .63</td>
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<td></td>
</tr>
<tr>
<td>TAT Verb. Power</td>
<td>C = .001</td>
<td>CxE = .61</td>
<td>3.26 (Black)</td>
<td>1.86 (Black)</td>
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<td>C = .24</td>
<td>CxE = .44</td>
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<td>3.00 (White)</td>
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<td>CxE = .51</td>
<td>.58 (Black)</td>
<td>.39 (Black)</td>
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<tr>
<td>Practice Darts</td>
<td>C = .34</td>
<td>CxE = .73</td>
<td>1.83 (White)</td>
<td>1.25 (White)</td>
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<tr>
<td>Final Darts</td>
<td>C = .84</td>
<td>CxE = .56</td>
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<td></td>
</tr>
<tr>
<td>Ring Toss</td>
<td>C = .69</td>
<td>CxE = .98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPPS n Ach</td>
<td>C = .53</td>
<td>CxE = .96</td>
<td></td>
<td></td>
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<tr>
<td>Deference</td>
<td>C = .38</td>
<td>CxE = .51</td>
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<td>C = .58</td>
<td>CxE = .21</td>
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<td>Intraception</td>
<td>C = .34</td>
<td>CxE = .14</td>
<td></td>
<td></td>
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<tr>
<td>Dominance</td>
<td>C = .84</td>
<td>CxE = .46</td>
<td></td>
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<tr>
<td>Heterosexuality</td>
<td>C = .79</td>
<td>CxE = .25</td>
<td></td>
<td></td>
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<tr>
<td>Aggression</td>
<td>C = .52</td>
<td>CxE = .32</td>
<td></td>
<td></td>
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<tr>
<td>Variable</td>
<td>Main Effect</td>
<td>Interaction</td>
<td>Pretest Means</td>
<td>Posttest Means</td>
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<td>---------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>TAT n Ach</td>
<td>D= .19</td>
<td>DxE=.26</td>
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</tr>
<tr>
<td>TAT Verb. n Ach</td>
<td>D=.26</td>
<td>DxE=.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPPS Scale n Ach</td>
<td>D=.77</td>
<td>DxE=.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling n Ach</td>
<td>D=.29</td>
<td>DxE=.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graph n Ach</td>
<td>D=.85</td>
<td>DxE=.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Context n Ach</td>
<td>D=.38</td>
<td>DxE=.54</td>
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<tr>
<td>Context Aff.</td>
<td>D=.61</td>
<td>DxE=.68</td>
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</tr>
<tr>
<td>Context Power</td>
<td>D=.79</td>
<td>DxE=.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAT Power</td>
<td>D=.68</td>
<td>DxE=.24</td>
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<td>DxE=.08</td>
<td>1.16 (Female)</td>
<td>1.24 (Male)</td>
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<td></td>
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<td></td>
<td>.73 (Female)</td>
<td>.92 (Male)</td>
</tr>
<tr>
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<tr>
<td>Practice Darts</td>
<td>D=.31</td>
<td>DxE=.36</td>
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<td></td>
</tr>
<tr>
<td>Final Darts</td>
<td>D=.47</td>
<td>DxE=.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ring Toss</td>
<td>D=.80</td>
<td>DxE=.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPPS n Ach</td>
<td>D=.27</td>
<td>DxE=.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deference</td>
<td>D=.49</td>
<td>DxE=.45</td>
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<tr>
<td>Order</td>
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<td>DxE=.35</td>
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<td>D=.49</td>
<td>DxE=.89</td>
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<td>Intraception</td>
<td>D=.78</td>
<td>DxE=.46</td>
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<tr>
<td>Dominance</td>
<td>D=.65</td>
<td>DxE=.45</td>
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<tr>
<td>Heterosexuality</td>
<td>D=.63</td>
<td>DxE=.14</td>
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<tr>
<td>Aggression</td>
<td>D=.88</td>
<td>DxE=.66</td>
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</tbody>
</table>
in the Pre and Posttest means shown. Since significance in hypothesis 5 (Table 25) would require another analysis of the four means (Black male and female, White male and female) involved, a separate t-test analysis was performed on the 24 students (12 in each female counselor group) for each of the 23 criterion variables. A one-tailed test was considered to be proper because directionality, that is, increase in score by the two groups on the different variables, is critical to the proof of hypothesis 5. The results, along with notation of occurring significance, are shown in Table 24.

For heuristic purposes, the remaining factors and interactions displaying significance at the < .05 level in the analysis of variance of the experimental group are reported in Table 27, ordered according to the criterion variables with which they were tested. In the interest of parsimony, however, the Pre- and Posttest means are not listed since the factors that generate them did not have direct bearing upon the hypotheses to be tested.
Table 24

t-test Results for Comparison of Experimental Group
Criterion Scores Generated by Black Females
and White Female Counselors (one-tailed test)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Counselor</th>
<th>Pretest Mean</th>
<th>T-Ratio</th>
<th>Posttest Mean</th>
<th>T-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAT n Ach</td>
<td>BF</td>
<td>1.17</td>
<td>.65</td>
<td>-.58</td>
<td>1.39</td>
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<tr>
<td></td>
<td>WF</td>
<td>.33</td>
<td>.75</td>
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<td></td>
</tr>
<tr>
<td>TAT Verb. n Ach</td>
<td>BF</td>
<td>-3.00</td>
<td>.55</td>
<td>-2.00</td>
<td>.56</td>
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<td>WF</td>
<td>-2.50</td>
<td>.75</td>
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<td>EPPS Scale n Ach</td>
<td>BF</td>
<td>3.56</td>
<td>.52</td>
<td>3.48</td>
<td>.67</td>
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<tr>
<td></td>
<td>WF</td>
<td>3.29</td>
<td>.67</td>
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<tr>
<td>Feeling n Ach</td>
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<td>.13</td>
<td>2.92</td>
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<tr>
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<td>WF</td>
<td>2.42</td>
<td>3.00</td>
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</tr>
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<td>Graph n Ach</td>
<td>BF</td>
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<td>0.0</td>
<td>6.42</td>
<td>.93</td>
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<tr>
<td></td>
<td>WF</td>
<td>5.50</td>
<td>5.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Context n Ach</td>
<td>BF</td>
<td>2.50</td>
<td>1.23</td>
<td>2.67</td>
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<tr>
<td></td>
<td>WF</td>
<td>1.83</td>
<td>2.58</td>
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<td>1.25</td>
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<td>3.42</td>
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<td>WF</td>
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<td>1.33</td>
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<td>.62</td>
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<td>2.88</td>
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<td>.79</td>
<td>.22</td>
<td>2.51**</td>
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BF = Black Female Counselor  
WF = White Female Counselor  

Levels of significance with t-values for a one-tailed test with 22 degrees of freedom:

* .05 = 1.72  
** .01 = 2.51
Table 25

Interaction Effect (CxD) of Race and Sex of Counselor and Interaction of Race and Sex of Counselor with Pre-Post Factor (CxDxE)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Counselor Race x Sex</th>
<th>Counselor Race x Pre-Post</th>
<th>Pretest Means</th>
<th>Posttest Means</th>
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<td>CxDxE=.33</td>
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Table 27
Factors not related to the Hypotheses Tested Which Displayed Significance in the Experimental Group Analysis of Variance

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<td>AxBxCxE = 0.04</td>
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CHAPTER 5

DISCUSSION AND INTERPRETATION OF THE DATA ANALYSES

Interview Content and Counselor Characteristics

A review of taped recordings of 39 of the 48 counseling sessions revealed that the two elements chosen to manifest attractiveness, i.e., a greeting and reference to the counselee, by first name, and an expression of confidence that the contract method would benefit the counselee, were present in all but five sessions. Behaviors representing trustworthiness, namely, assurance of contract follow-up sessions and that there was no obligation to make such a commitment, were found in 38 of the 39 sessions examined. Finally, the two behaviors designed to give the impression of contract counseling expertise, 1) a thorough explanation of the contract method with an individualized application geared to the needs of the counselee, along with 2) a negotiated agreement on a particular skill or task to be developed and a specific time to work on this assignment, were present in every session in the sample. Judges' ratings of the level of counselor characteristics displayed in the interviews ranged from a mean of 6.17 for expertness and 6.11 for attractiveness to 6.76 for trustworthiness. On the 8-point rating scale used by the three judges, the counselors were rated just a few percentage points above "moderately" expert and attractive, but just below "very" trustworthy. The trustworthiness evinced by the counselors was more evident than their expertness and attractiveness, but on average, all were at least "moderately" high.

The ratings of the three judges correlated substantially higher on counselor expertness \( r = .81 \) than on trustworthiness \( r = .60 \) and attractiveness \( r = .60 \). However, the overall average correlation between the judges on all three counselor characteristics was a respectable .69. The interrater reliability was computed for the 39 sessions judged using the Spearman-Brown prediction formula and rendered an \( R = .92 \) for expertness, and \( R = .81 \) for both trustworthiness and attractiveness. The adjusted estimate of \( R \) based on a single measurement was .80 for expertness and .60 for both trustworthiness and attractiveness. This set of high positive correlations among the judges leads to the assumption that the counselors were on the average "moderately" to "very" expert, trustworthy, and attractive in their counseling manner. A very important consideration for this study, however,
lay in the question whether Black counselors differed significantly from White counselors, or male counselors differed significantly from female counselors in the quality of the counselor characteristics with which they related to their counselees. An analysis of variance performed on the ratings of all the counselors on each of the three characteristics revealed no significant difference between the 12 counselors on any of the counselor qualities. The results of this analysis seem to lend some support to the assumption that each counselee in the experimental group received substantially the same treatment, as far as content and manner, no matter what the sex or race of the interviewer. The evidence, therefore, appears to argue for a resultant data set that was free from bias created by either a discrepancy in the content, of the interview or an inconsistency in the manner in which the counselor conducted it.

**Test-Retest Reliability**

The fact that only a day separated the pre- from the posttest would seem to argue for an increased probability of high retest reliability coefficients for the criteria. However, with the exception of the individual EPPS items, the correlations, though all positive, were not exceptionally high (Table 6). Behaviorally oriented Practice and Final Darts showed a moderately high correlation (.53 and .59) with their repeated measure, but not so Ring Toss (.20). Among the objective tests, Context n. Acc demonstrated reliability of .60 while Context n. Acc (.31) and Context Power (.21) appeared to be more changeable. Outside of the Scale EPPS (.53) and the individual EPPS n. Acc item (.65), the n. Acc measure manifesting the greatest retest reliability was the Graph n. Acc (.55). If the customary .30 were used as the cutoff point, only the TAT Verbal n. Acc of the projective measures would survive, bringing to mind once again the contention of McClelland (1953) that, since it is a function of fantasy, the TAT does not always respond to the customary forms of reliability testing. It is difficult to explain the cause of low retest correlations like a TAT n. Acc of .18, or a TAT Affiliation of .09, or the low .06 shown in the TAT Verbal Power. It can only be said that apparently the phenomenon discussed by McClelland in regard to n. Acc imagery applies to affiliation and power imagery as well. As a component part of the criteria of this study, taken as a group, the TAT measures do offset doubts about social desirability. The low correlations of the TAT between the pre- and posttest may be an indication of the instability of projective test, or on the other hand, they could point to its sensitivity to the treatment, but on the basis of these results the TAT could hardly be accused of soliciting from the student an "expected" or "more appropriate" answer.
Test of Association Between the Pre and Post Criteria Sets

This research was designed to be a multivariate outcome study, so more important than individual test reliabilities is the finding at the .0001 level that these 23 criteria are definitely related and reliable indicators of changes that may have occurred in the subjects taking them. The hypothesis that the pre- and posttests are not highly associated and therefore do not display a consistency sufficient to reveal the effects of the counseling interview must be rejected.

Intercorrelation Among the Variables

The 46 x 46 correlation matrix unveils a number of interesting relationships among the variables. The TAT n Ach pretest is related positively to very few of the other variables, and then only modestly to Post TAT Power (.23). It must be noted that the positive correlations with Practice and Final Darts and Dice (pre and post) represents a negative relationship in measuring n Ach. The higher the score on Darts and Dice, the more extreme the risk the student is taking, which is not supposed to be the characteristic behavior of high n Ach. However, both the pre and the post TAT n Ach correlates with Ring Toss positively, .90 in the pretest but .18 in the post. This may indicate that the internal locus of control theoretically assessed by the TAT is behaviorally manifested in greater degree by Ring Toss playing than the risk in Darts and Dice. The French Test of Insight, called TAT Verbal n Ach in the study, also displayed an array of low or negative correlations with the other criteria. The only exceptions were Feeling (.26) and Order (.21) among the pretests and the TAT n Ach posttest (.34). This was but modest support for Atkinson's (1958) contention that the French test is equivalent to the TAT in measuring n Ach. Perhaps more evidence for the agreement of the picture and verbal forms of the TAT was exhibited in the measurement of Power, in which the TAT correlated .25 with the French on the pretest and .36 on the posttest. It should be noted that the pretest TAT Power related negatively to the TAT n Ach pre (-.01) and positively to it on the post (.23). With the Verbal n Ach, however, it correlated negatively with the French n Ach pre (-.17) and post (-.25). Outside of the aforementioned relationships, the Verbal Power exhibited only a slight relationship (.18) with TAT Verbal Affiliation which dwindled to a posttest correlation of .08. The TAT Affiliation measure also correlated negatively with the TAT n Ach on the pretest (-.20) but positively on the posttest (-.12), which may be an indication that in the posttest the TAT n Ach and Aff imagery may have become more congruent. The Verbal Affiliation pretest accentuated the trend for TAT power and affiliation measures to correlate negatively with both the Practice (-.15) and Final (-.28) Darts and almost zero with the other behavioral measure, Ring Toss (-.04 on the pre and -.07 on the
Pretest Verbal Affiliation was the only TAT measure to correlate positively to any notable degree with an objective measure (Context Affiliation posttest .21). Generally, all TAT measures correlated near zero with the objective tests and negatively with the EPPS items. The projective measures of n Ach related positively with the behavioral measures of n Ach, but this relationship did not extend to the power and affiliation scores. It was observed that in almost all correlations, involving the projective as well as the objective and behavioral measures, the correlation with the posttest of a measure was lower than the correlation with its corresponding pretest, evidence, perhaps, that the three different forms of criteria employed in the research grew more independent from one another as variance increased in the posttest.

The objective tests were positively, and with a few exceptions, highly correlated with each other. A perfect example of this set was the EPPS Scale, the pretest of which correlated with the pretests of Feeling n Ach (.56), Graph n Ach (.79), Context n Ach (.59), Context Affiliation (.48), Context Power (.43), and all of the EPPS items in the pretest beginning with EPPS n Ach (.76) and descending to Aggression (.31). The pretest EPPS scale correlated as much as 20 percentage points lower with the posttest scores of these instruments, a phenomenon which appeared to be generally true within the entire matrix. Pretests tended to correlate more highly with other objective pretests than with their posttest counterparts and vice versa. All EPPS items, with the exception of Aggression, posted high correlations with the other objective tests, and averaged .65 among themselves, again with Aggression recording the lowest, though positive, Pearson r. Context n Ach averaged .25 in its relation to Context Affiliation and Context Power, but Context Affiliation, pre and post, correlated negatively with Context Power (-.20 and -.22). Generally, the objective measures correlated negatively with both Practice and Final Darts, but positively with Ring Toss. A good example of this objective-behavioral relationship was brought out in the posttest where Context n Ach correlated -.22 with Practice Darts, -.19 with Final Darts, and .20 with Ring Toss. Perhaps the format of the Ring Toss, presenting the possibility of a "sure" score if one chose to stand close enough, provided a greater certainty or objective control to the player than the Darts and Dice Game, which demanded either a throw from 12 feet or a chance roll of the dice. It was observed that the greater specificity in choice of distance led to more objectivity in judgment, whereas both Darts and Dice seemed to elicit more of a gambling and high risk-taking reaction.

The Practice Darts and Dice correlated highly with one another both on the pretest (.70) and the posttest (.72). However, as was observed to be true for the projective and objective measures, the correlation of the behavioral measures within either the pre
or posttest was higher than that recorded between one of the measures in the pretest with another in the posttest. For example, pretest Practice Darts and Dice correlated only .44 with posttest Final Darts and pretest Final Darts and Dice correlated only .62 with posttest Practice Darts and Dice. Though the structure remained substantially the same in the posttest as in the pretest, evidently different strategies were being employed in posttest play. Practice and Final Darts, both pre and post, correlated .20 and .15 respectively with pretest TAT n Ach. If moderate risk taking is a sign of high n Ach, these correlations mean that when TAT n Ach measures high projective n Ach, these two simulations are indicating extreme risk taking or low n Ach in performance. The relationship of pretest Practice and Final Darts with pretest Ring Toss was low but not negative as expected (.03 and .12 respectively) and the correlation with posttest Ring Toss increased to .16 and .21. Table 10 shows that the increase in Ring Toss scores on the posttests of all three groups was paralleled primarily by the comparison and control groups, with the experimental group showing a negligible gain in Darts and Dice. Ring Toss in both of its repeated measures showed a high correlation to posttest Practice (.36 and .32) and to posttest Final (.33 and .32) Darts and Dice. By posttest, the subjects in the experimental group appeared to be applying a more systematic, methodical approach to both games, whereas only the Ring Toss for the control and comparison students witnessed the need-for-achievement-related moderate risk-taking strategy in the pretest and posttest game situation.

Factor Analysis of the Variables

As Schuerger (1967) defines it, "factor analysis is ... a method for discovering underlying relationships among a number of variables and combining them according to those relationships" (p. 143). A very important relationship that appears to be evidenced is the existence of six general factors (Table 8) that account for most of the variance in both test administrations. These general factors serve a number of purposes: 1) they provide a continuity between the repeated measures, 2) show that the testing occurred within the same psychometric structure, 3) give evidence that the students expended the same effort and manifested the same diligence in responding to the posttest as they applied to the pretest, 4) permit a more parsimonious interpretation of the 23 criteria by clustering them into six more or less pervading groups of variables, and 5) provide a measure of construct validity to the pre-post design by demonstrating that the instruments used in assessing the various motivations of students before and after counseling coalesce into six fundamental factors that maintain their identity through all intervening variables, remain as reliable indicators of change, and apparently assign a valid numerical value for each administration to the constructs they measure. Based on the instruments combining to form these factors and the
magnitude of the Pearson Product Moment coefficients relating the scores the tests generate, these general factors may be briefly described as the following, with the portion of the factor persisting through the treatment phase given in parentheses as a congruence coefficient (Table 9).

1. Autonomy-Dominance-Sex: Primarily formed by objective criteria, the core of this factor consists of 5 EPPS items, Autonomy, Dominance, Heterosexuality, Aggression, and Intraception. Feeling n Ach gives this disposition towards independence and leadership an achievement orientation, while the TAT Verbal Affiliation shows a de-emphasized need for approval by others. This desire to get ahead through independent effort is, motivationally speaking, a behavioral objective of contract counseling which requires regular self-application to a specified task. In the posttest, the need for sexual activity became less dominant and an appreciation for self reflection was added (.88).

2. Darts-Context Power: This craving for victory and control in a competitive situation relies heavily on a willingness to take heavy risks, more extreme than the more moderate odds high achievers seem to choose. A particular situation that offers a self-satisfying achievement correlates negatively with this much more encompassing need to demonstrate one's prowess for the acclaim of the crowd and the prize money (.74).

3. Verbal n Ach-Deference: This factor depicts a thoughtful willingness to accept the advice of another in order to accomplish something worthwhile. This sense of achievement, though relying on fantasized accomplishments, is nevertheless based upon a ranked estimate of one's motivation in comparison to one's peers and a self-proclaimed desire to do one's best. It is difficult to explain the cause for the disappearance of a lack of need for friendship in the posttest makeup of the factor. Two suggestions may be offered: 1) the actual or anticipated counseling relationship, which would have affected almost 3/4 of the sample, or 2) the greater feeling of belongingness which could result from an extra day spent on campus and/or in the program (.69).

4. TAT Power-n Ach: The 9th factor in terms of variance accounted for in the pretest analysis, this internalized need for having impact or influence on others took a more thoughtful, though still imaginative, achievement direction in comparison to its pretest counterpart. The Scale EPPS n Ach negative correlation was replaced by lack of preoccupation with violence and sex and a de-emphasis on
control or influence over a specific situation. Factor 8 in the posttest is highly similar to this factor, but focuses the power need on a verbal and contextual control. Combined these factors would nicely define the motivation needed to contract in writing to gain control over a specific context (.51).

5. Order-EPPS n Ach: A methodical, very rational and unemotional determination to achieve would best describe this factor. Elements of a willingness to take the counsel of others and a favorable comparison with others on the need for achievement are present, but this is substantially the comparative n Ach factor 1 of the pretest that has been more highly organized toward the details and neatness involved in academic achievement (.62).

6. Context n Ach/Aff: Much more simple than its pretest counterpart which counted Ring Toss, Order, and TAT Verbal Power as minor contributors, this outlook on specific situations shows how highly n Ach and n Aff relate, and how the n Power tends to n Ach when an opportunity for a particular accomplishment arises. The factor clearly emphasizes a preference for the satisfaction of having reached one's goal over and against the satisfaction arising from acceptance by the group. This type of thinking would seem to be very helpful to one giving up a chance to socialize in order to spend time on independent study (.78).

As to the remaining factors in the posttest analysis, Factor 8 has already been related to Factor 4 of the pretest, and thus to Factor 9 in the pretest (with which it displayed a congruence r = .47). Factor 6 registers the highest congruence coefficient with pretest Factor 7, but by inspection alone it would appear that Factor 7 was absorbed into Factor 1 in the pretest. Verbal Aff-Feeling-Scale n Ach appears rather to express a new attitude which could very well have been created through the counseling experience, whether realized or still anticipated, of gaining acceptance from others and living up to another's, as well as one's own expectations by achieving more academically. Factor 9 appears to have no counterpart in the pretest and seems to have arisen because of the across-group rise in Ring Toss and overall decline in Heterosexuality scores. Why TAT Affiliation correlates negatively on this factor is difficult to explain since it also rose in score across groups, and especially within the control group which experienced the greatest increment in Ring Toss. Perhaps Horner's study (1974) showing less effective performance by players high in n Affiliation offers a partial solution. Suffice it to say, that, despite their negative correlation on Factor 9, Ring Toss and TAT n Aff must not have been conflicting motivations,
that is, at the moment when data was being gathered on tossing rings or writing stories in response to pictures.

In addition to the comments already made, two generalizations are supported by the results received from factoring the data. Although the 23 criteria were clearly divided into three fundamentally different projective, objective, and behavioral formats, the type of instrument employed appeared to have little effect on the factors generated. Only three of the 18 factors that emerged were instrument bound in terms of being composed of members of just one testing format: the pretest possessed a totally Behavioral n Ach factor and the posttest analysis produced two factors composed only of objective tests. Considering that there were 14 objective formats in the 23 criteria, this result does not appear to be extraordinary. More noteworthy for consideration is the wide distribution throughout the factor structure of the TAT measures. Often accused of being unrelatable to any instrument but itself, at least one of the six TAT measures was a component of 14 of the 18 factors.

The second generalization deals with the observed presence in posttest factors of the attitudes, motivational values, dispositions, and orientations to action that contract counseling tried to create. Although TAT Verbal n Ach, Order, TAT Verbal Affiliation, TAT Verbal Power, and Ring Toss were members of pretest factors, they did not load the highest on any factor as all of them did in the posttest. Similarly Autonomy rose from a loading of .54 on pretest Factor 7 to .76 at the head of Factor 1 in the posttest. Context n Ach was united to Context Power in a factor that operationalized the goal of the contract method, improving one's worth by control over and achievement in a small task rather than expending all one's energy in gaining peer group acceptance. Whether or not counseling alone or even in part helped to bring out these values, the factor analysis at least shows them to be operative at the posttest administration.

Covariance Comparison of the Three Groups on the Criterion Variables (Hypothesis No. 1)

Covariance analysis comparing group scores on each individual instrument. The analysis of the pretest scores revealed that the groups were significantly dissimilar before counseling on 12 of the 23 criteria. It was expected that the comparison group might be different from the experimental and control groups because only one third of the group was composed of Upward Bound and Bridge students. However, the mean creating the significant difference on five of the 12 variables was that of the control group, which had been created by random assignment. The recommendation that this finding suggests is that, in addition to socioeconomic and academic criteria, Upward Bound might benefit from the use of motivational measures in the selection of its candidates. The present
sample manifests how totally different the groups are in need for achievement, the attitudes or cluster of dispositions which the program is primarily designed to develop.

The hypothesis that the experimental group would improve significantly more than the other two groups was not justified on any of the 23 variables. In fact, the experimental group showed an increase on only nine of the 21 tests where an increase was desirable. Higher posttest scores on Practice and Final Darts and Dice would be an indication of more extreme risk taking, which has not been associated with high n Ach in previous studies. Four variables, however, which were significant on the pretest were not so on the posttest. At least one of the variables, Order, evidenced a sizeable gain in the experimental group in contrast to declines in the other two groups. In view of the aim of contract counseling to bring about a methodical approach to skill development, this increase in Order could be interpreted as an indication of counseling effectiveness. In the other three instances of a decline in differential between groups, the effect of counseling might be conceived as narrowing the counselee's focus, even in regard to need for achievement, to a more specific task. The decrease in the heterosexuality score could spell a de-emphasis on that variable, the EPPS item which emerged as most prominent among the experimental group in the pretest. Theoretically, it does seem logical that the removal of heterosexual and, in accordance with the data, power fantasies, would allow room for thought about an academic aim and perhaps create more time for its fulfillment. The other two instances in which significance disappeared found the treatment group declining in Scale EPPS and EPPS n Ach scores. The interpretation most benign to the effectiveness of the contract counseling might point to the need for specificity in academic achievement that was emphasized in the sessions. Both of these tests are more global in their description of goals to be achieved, and make no mention of any scholastic accomplishment in particular.

The control group showed an increase in 15 variables, to 11 for the experimental group, and nine for the comparison students. The more immediate interpretation might be that the anticipation of the effect of counseling was more influential than the counseling session itself. However, considering the variables on which the experimental group showed higher scores on the posttest, an equally plausible explanation might be that only those 11 measures could validly measure in a positive manner the true effects of the contract approach. The EPPS items, for example, on which the counseled students rose were Aggression, Order, and Deference. On the Aggression pretest, the experimental group had a mean twice that of the control group, though less than that of the comparison group. So extreme was the latter's decline on the posttest and so moderate the ascent of the other two groups that among the covariance adjusted means, the experimental was the highest, and
there was no significant difference between groups. It might seem that the behaviors the experimental students felt they would like to indulge in more than others, i.e., "to attack contrary points of view, to tell others off when disagreeing with them, and to get revenge for insults" would not be congruent with the purpose of the contract. However, Johnson (1972) sees aggression as an energizing factor not necessarily connected with physical violence. In terms of n Ach motivation, McClelland (1971) envisions aggression as an increasing intent arising out of an approach-avoidance conflict. In this study, the contract would represent a sacrifice of time and effort on the part of the student to be weighed against better chance for success in college in the more distant future. As McClelland observes, once such a conflict is resolved, as in a commitment to regular practice on a study skill, an unusually vigorous behavior is produced. In common parlance, a high achiever may be referred to as being a "go getter" or as possessing an "aggressive" personality, and a common practice in animal experiments is to make the subject more aggressive by food deprivation. Weiner (1966) suggests that the paradoxical findings about aggressive fantasy goal attainment resulting in cathartic reduction of subsequent aggressive behavior (Berkowitz, 1964), or, at times, leading to modeling behavior and a subsequent increase in aggressiveness (Bandura and Walters, 1963) can be resolved by using Atkinson's (1957) theory that previously aroused but unsatisfied motivation persists following nonattainment of a goal. In the present findings, an increase in aggression could be seen as an increase in the magnitude of the tendency to approach rather than avoid the contracted task, thus adding to the already present, previously aroused and persisting motivation.

The reasoning behind interpreting aggression as need arousal instrumental to goal acquisition springs from its relationship to Order and especially Deference, which on face validity might appear to completely contrast with Aggression. If the student after the counseling session wants "to have written work neat and organized, to keep things neat and orderly, to organize details of work" (Order in Appendix 0) and, to achieve this outcome, the counselee wants "to find out what others think, to accept the leadership of others, to do what is expected of you" (Deference in Appendix 0), then increased Aggression may be seen as a form of violence to self, expressed in self discipline and a dynamic approach strategy geared to overcoming obstacles to contract goal attainment. Fitting into this picture perfectly are Context n Ach and Context Power, which are situation specific, with some items pointed particularly to academic achievement and influence. Horner (1974) has presented evidence to explain why Context Affiliation did not display an increase similar to that of Context n Ach and Power. Her research has shown that in a specific situation, the need for affiliation conflicts with the will to win in games or the desire for power or influence over members of a group.
She discusses the dissonance created, particularly in adolescent boys, when competition among friends occurs. The results show significantly lower performance and much greater inhibition of power needs. In the present research, on the posttest Context n Ach correlated only .08 with Context Affiliation, which rendered an \( r = -.20 \) with Context Power. Completing the objective sub-tests that rose in the experimental group are Graph n Ach, which enjoyed such a marked increase in both experimental and control groups that pretest inter-group significance was erased, and Feeling n Ach, which tests constructs such as perseverance in a task, delay of gratification, future planning, control over life's events—all constructs related to need for achievement and stressed in contract counseling.

The only TAT measure to register an advance among those counseled before posttest was n Affiliation. Horner's study (1974) cited earlier pointed out that only under conditions where extrinsic motivation has been minimized can the relationship between n Ach as measured by the TAT and performance be expected to be consistently positive. When other extrinsic incentives such as money and affiliation are introduced, the relationship between achievement imagery and actual performance is obscured. In fact, subjects high in TAT n Ach showed superiority of performance over those low in the same measure only in noncompetitive situations where n Affiliation was not present. The relationship between the counselor and the counselee was certainly not competitive but did introduce as an extrinsic incentive the approval and praise of the counselor if and when the contract was fulfilled. The rise in TAT n Affiliation, then, may indicate that an extrinsic value was more influential, at least in the initiation of skill development, than the thought of the internal satisfaction that would result from a task's completion—the motivation that TAT n Ach is purported to measure. Indeed, the entire process of making a contract emphasizes an externalization and specification of the type of achievement to be sought after, so it may be a logical consequence that fantasized n Ach declines, especially when the conflicting n Affiliation is aroused by an attractive, trustworthy, and expert counselor. It is noteworthy, before discussing the behavioral measures, how TAT n Aff exemplifies a projective measure that shows evidence of validity in its "relational fertility" (McClelland, 1953) to the other experimental group advances. As portrayed in Table 11, posttest TAT n Affiliation is seen correlating in the expected direction with all the experimental increases, except Ring Toss, with which it maintained the identical relationship shown in the pretest. Otherwise, pretest negative correlations with Feeling n Ach and Deference became positive and positive correlations with Graph n Ach, Context n Ach, and Order rose considerably. The correlations with Context Power and Aggression declined according to expectations, and true to Horner's (1974) hypothesis, the posttest TAT n Aff apparently was strong enough to confound the n Ach measured by Ring Toss, so that the performance on the behavioral measure correlated negatively.
The behavioral measures exhibit paradoxical correlations, both with the other eight measures, and between themselves. The fact that both Practice and Final Darts and Dice correlate near zero or negatively the TAT and all the objective measures can be explained by the fact that an increase in the score of these two behaviors represents higher risk taking and therefore lower n Ach. The problem arises when considering the high positive correlations with Ring Toss, which supposedly denotes a higher n Ach with a score increase. To interpret these correlations accurately for the experimental group, it must be recalled that the correlations in Table 11 are taken from the larger matrix (Table 6) which was calculated on the entire sample. This data reveals a much greater "go for broke" tendency in the posttest Darts and Dice while manifesting a more moderate, methodical, and successful strategy in Ring Toss. Even the number of students who chose dice instead of darts grew in the posttest. Pretest dice throwers amounted to only 10 percent of the sample for both Practice and Final Darts. In the Posttest, the number who chose dice in the Practice round soared to 31 percent, subsiding to 16 percent for the Final round. This penchant for extreme and less successful risk taking was true, however, of the comparison and control groups rather than the counseled students. Table 9 shows clearly that Group 1 on the pretest operationalized the "high risk" student with significant means of 37.35 and 32.85 on Practice and Final Darts. The covariance adjusted means of 31.06 and 32.32 show progress toward moderate risk taking, though slight, while the adjusted means of the control (34.01 and 29.39) and comparison (16.12 and 18.31) subjects manifest so great an increment that the previously .0001 significant difference completely disappears. Thus it may be seen that if the actual scores on the Darts and Dice posttest of only the experimental group were correlated with the Ring Toss posttest of that group, the relationship would be negative, and both measures would indicate more moderate risk taking and better scoring. It is perhaps in this area of behavior performance that the experimental group shows more significant progress than either of the other two groups, a finding which can easily be overlooked without a more thorough examination and comparison of the data.

The experimental group scored higher on a number of variables after counseling, forming a multivariate profile of achievement, affiliation, and power measures that appeared to operationalize most of the motivational objectives of the contract counseling experience. Since all of these variables related more closely, as a rule, with one another rather than with the 12 remaining criteria, and since components of the profile were major contributors to five of the nine posttest factors (Factors 2, 3, and especially 5, 7, and 9), there may be cause for speculating that only the variables in this particular posttest profile may provide the "best fit" description of the effectiveness of the counseling. An argument in favor of this hypothesis is offered by Raynor (1974).
in his discussion of "overmotivation." He points out that arousal of too many variant motives (all 23 criteria for example) might overload the emotional circuitry and produce intermotivational conflicts and reduced efficiency in performance as Horner (1974) and Huk (1972) reported in their research. Certainly the matrix of intercorrelations (Table 6) provides further evidence that unrelated, and negatively correlated drives were interacting in the students being tested, evidence that is made more formal in the analysis from the data of nine different factor matrices, only six of which can be considered statistically as carryovers from pretest measures. Future research might be better advised to modify the statement of the hypothesis to restrict the prediction of significant increase only to those variables that appear to be sensitive to the counseling session and its particular content.

In addition to an explanation for the limited number of variables rendering positive results, the lack of intensity in increase must be explicated. One plausible reason for the lack of significance produced by the need for achievement counseling session may be found in the nature of the n Ach construct itself. Studies by Strong and Schmidt (1970) on the effect of expertness in raising n Ach ratings, and again by Strong and Schmidt (1970a) investigating the influence of trustworthiness on n Ach self-rating EPPS scales, show that treatment differences displayed a delayed development in the predicted direction. The outcome instruments were administered immediately after counseling and failed to manifest a significant increase over the comparison groups. However, the same tests given one week later did reveal a significant difference, a function of not only an increase in the experimental group's ratings but a decrease in the ratings of comparison groups. A similar chiasmic movement away from each other's scores was noted in the discussion of the behavioral Darts and Dice games, where the experimental group's slight decrease was accentuated in the covariance comparison by a robust advance in control and comparison group results. This "sleeper effect," as Strong and Schmidt term it, and as cited in other communicator studies (Hovland & Weiss, 1951; and Sapolsky, 1960) might have been holding down significant advances on the part of the experimental group, at least in the profile measures. An interesting way to obviate this limitation in further motivational research would be to administer fewer tests, but more frequently perhaps in the middle and at the end of the program, as well as immediately following the counseling session itself.

Perhaps yet another explanation for only gradual increase on the part of students in the experimental sample is the fact that they were counseled to do so. One of the basic elements of the contract approach is gradualism, beginning with a small task more easily accomplished and weekly renewing the contract to specify more difficult academic achievements. Again, the hypothesis
overstates the intended effectiveness of the method being tested. The counselor's attempt to aid the student in setting up a contract stressed the importance of a realistic goal that would only slightly alter the student's daily schedule and not require any extreme expenditure of energy. In fact, expressions of the student to "go all out" or, in the counselor's judgment, significantly change his life style and overextend himself, were met by suggestions to undertake a much less exalted exercise but one which would be specific in nature and could be easily completed. The underlying rationale was the hypothesis that success in small endeavors would provide more energy and motivation to strive for higher objectives. Thus, the nature of the treatment may have militated against results that could be called significant in the statistical sense, but over an extended period of time embracing a number of contracts, results might be obtained which would prove extremely significant.

Covariance analysis comparing group scores on clusters of selected instruments. One method of detecting a significant simultaneous change by several variables, as if by a unit, is the Multivariate Analysis of Variance. It combines all the advantages of previous methods of profile analysis in that it is capable of treating several measurements as a vector but retains all the precision and statistical refinement of traditional F-ratio assessment. The clusters analyzed were chosen on face validity criteria mostly, but also instrument effect was scrutinized by bunching the TAT tests, EPPS items, and Behavioral scores and comparing the change of the three different groups over these several instruments considered as a whole.

The first analysis compared the three groups on all 23 criteria. Since the F-ratio was not found to be significant, a discriminant function analysis was not performed. Considering the lack of correlation between the variables, it is not surprising that an overall significant change did not occur. Indeed, if the interpretation that contract counseling seems to effect a change only in certain of the criteria, a successful contract experiment might not be evidenced in an analysis of all the criteria, especially if some of the instruments measured another change, the "anticipatory" effect on the control group, for example. The criterion battery was therefore split up to investigate the possibility of small groups of variables reacting significantly to the treatment. As was noted, the clusters considered were chosen by face validity and formal similarity. No hypothesis was made that the treatment would significantly change only selected instruments, so the results of the individual analyses did not determine the choice of the cluster analysis. Only those groups showing a significant change were subjected to a discriminant analysis and noted in Table 13, so they alone will be considered for interpretation.
The 10 \( n \) Ach tests manifested a significant posttest change that approached the .01 level. Variable 5 (Graph \( n \) Ach) produced the highest loading (.9117), but the interpretation of this finding is difficult because the covariance means are insignificant (Table 10) and all three groups exhibited a higher posttest score. The fact that the control group mean showed an increase twice the magnitude of the advances of each of the other two groups might be an argument for the influence of the anticipatory effect of counseling, but even this interpretation remains inconclusive in the face of a substantial increase by all three groups. More noteworthy, perhaps, is the -.7075 loading of Ring Toss, which showed a covariance significance of .0001 and an increase in experimental group posttest score three times that of the control group. Coupled with the positive .6175 loading of Verbal \( n \) Ach, these two variables might provide support for asserting a strong contribution by the experimental group to the resulting significance. The treatment group showed the largest increase in Ring Toss and the largest decrease on the Verbal \( n \) Ach, contributing substantially in the individual variable analyses to a .0001 significance on the former and a .01 level of probability on the latter. The -.5517 weight posted by Scale EPPS \( n \) Ach, however, does not find the experimental group posting a gain as might be expected, and with the control group alone showing an increase, it does not follow any patterns suggested by the other three variables with large loadings. Its importance in differentiating the groups, like Graph \( n \) Ach, is lessened by lack of covariance mean significance. It seems that, considering the four variables displaying the highest weighting in the cluster, the experimental group was responsible for the resulting significance because of its extreme positions on Ring Toss and Verbal \( n \) Ach.

The six TAT tests produced the greatest group covariance analysis significance, posting a .0008 probability that the covariance mean vectors are equal. TAT Power (-.5984), TAT Affiliation (-.5414) and TAT Verbal \( n \) Ach (.4202) were the strongest contributors to the differentiation, with TAT Verbal Power recording a weight of -.3624. The covariance means of the experimental and control groups appear by inspection (Table 13) to be much more highly differentiated from the control group than from one another. All four variables displayed significance in the individual covariance analyses, with the control group apparently providing the greatest change variance by increasing in TAT Power and Verbal \( n \) Ach while the other two groups were decreasing. Nevertheless, the safest interpretation of the results appears to be that the TAT cluster significance is a function of the great diversity between the experimental and control groups on the one hand and the comparison group on the other.

The three Power instruments also distinguished the three groups significantly (.0018). Since Context Power (.6273) and
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illustrates the importance of this method in motivational studies. Raynor's (1974) observation on the tenaciousness of any particular n Ach motive arousal might be generalized to all the tendencies that have been measured in the present study. Unless they are analyzed by multivariate methods, the individual motives aroused by a particular treatment, e.g., a counseling session, might be statistically imperceptible, for as he states, "... the relative magnitude of this tendency is often small compared to the total of component instrumental tendencies presumed to be aroused in long contingent paths" (p. 152). To apply this assertion to the data of this study, it must be remembered that a gradual arousal of goal oriented motivation is the immediate aim of the contract approach, with the substantial or significant change in a tendency like n Ach relegated to a more mediate and remote long-term application. The amount of motivation contracted for in the single counseling session under examination would constitute only the first step towards the ultimate motivational state set as the end product of a consistent and prolonged application of the technique. In this analysis, as in the n Ach and Power multivariate analyses, the experimental group shows signs of moving in the expected direction, to the point of already, after one counseling session, distinguishing itself statistically from two other randomly selected groups when analyzed by multivariate methods.

The Ring Toss measure is clearly shown (Table 18) to exert the greatest weight in discriminating among the Behavioral instruments. So relatively insignificant are the loadings on both Practice and Final Darts that the interpretation of the significance shown in the multivariate analysis remains practically the same as that given for the univariate analysis of the Ring Toss Game. A comparison of the means showed the comparison group to be far below the adjusted covariance scores of the experimental and control groups. As was previously noted, the covariance adjusted mean for the control group was higher but the experimental group's increase was over three times as great as that of the control group when the differences between pretest and posttest means are compared. The data, therefore, does not permit a conclusion as to the relative importance of the experimental and control groups in creating the significant results in both the univariate analysis of the Ring Toss Game and the multivariate analysis of the three Behavioral instruments. The evidence serves only to exclude the influence of the comparison group's posttest increase as an influence in effecting the significant results rendered by the multivariate analysis of covariance.

The three Context criteria that endeavored to gauge the amount of n Achievement, n Affiliation, or n Power that items forcing choices in specific situations aroused produced a probability of < .15 in their data analysis. Although in another study, such an approach to the customary significance levels
might be deemed worthy of a discriminant function analysis, such an investigation was not considered for the present study because 1) all three of the criteria were present in other multivariate analyses, i.e., the analyses of the Power, Achievement, and Affiliation groups and 2) the other covariance cluster analyses manifested such great significance that by comparison the Context cluster did not appear that noteworthy.

The group in which the Context n Ach set of items was one of only three members, however, did produce data displaying a < .0572 chance of occurrence, and this probability seemed to be close enough to the .05 level to merit a discriminant function examination. Table 19 reveals that Context n Ach is given a comparably large loading of 1.1546, but Graph n Ach and Feeling' n Ach, also have notable lesser loadings of -.5660 and -.3926 respectively. Again consulting Table 10 for the posttest increases and covariance adjusted means, the scores for the control group on Context n Ach seem to point to that group's performance as being the primary factor in bringing the entire cluster to a near significance level of results. However, since the two other variables are given sizeable weights, the observation might be made that only the experimental group increased on all three criteria, and that the increase was at least of .3 magnitude on each. This overall increase may not be the overriding cause for the multivariate analysis results in this cluster analysis, but it is just one more indication by way of summary, that the experimental group contributed substantially, if not significantly, to every multivariate analysis of covariance that gave evidence of treatment effects beyond the realm of chance.

**Interview Reaction Questionnaire Results (Hypothesis 2)**

The client preferences predicted in the second hypothesis, namely, that Black counselees would rate Black counselors significantly higher on the Interview Reaction Questionnaire than White counselors, were not supported by the data. As was mentioned in Chapter 3, the Interview Reaction Questionnaire was completed by all members of the experimental and control groups. Only one student, a Black female in the control group who was assigned to a Black female counselor, refused counseling and therefore was not asked to complete the Questionnaire. Because the sample was much larger, there was more data available for the testing of hypothesis No. 2 than any other and therefore, the nullification of the hypothesis more emphatic. This lack of support for the hypothesis was evident in all four dimensions of the Questionnaire, with a tendency toward significance appearing only on the comment section of the counselor evaluation.
Anxiety Arousal. The primary component of the IRQ was the set of items taken from the Test Anxiety Questionnaire (Mandler and Sarason, 1952). Only the sex of the counselor showed any influence worth investigating (.10), so Table 20 displays the means for the four race-sex combinations. Overall, it appears that male counselors created less anxiety than female counselors, and this proved especially true of White male counselors. White female counselors, on the other hand, gave rise to the greatest anxiety arousal, perhaps because most of the students came from schools where female counselors, and especially White female counselors, were practically nonexistent. Another explanation might come from the fact that the head of both the Upward Bound and Bridge Programs was a White female, and further, the entire study skills staff for Bridge students was composed of White women. It would have been interesting to have devised an instrument that could have measured the anxiety arousal attributed to the teachers in the two programs, to see if the amount of anxiety aroused by sex of a teacher correlated with that created by the gender of the counselor. Judging from the means generated by this study, White females were the most threatening (though not significantly so), followed by Black males, Black females, and White males in that order.

Forced Choice Achievement Items. The three items chosen from the Detroit Survey (Veroff, 1971) that gave the counselee an opportunity to give an achievement oriented reaction to the counseling session was completely ineffective in differentiating any significant effect, either on the part of the race and sex of the counselor or the counselee. Perhaps the selection of items was too limited, but in 66 IRQ's, no patterns emerged.

Counselor evaluation through grading. The responses of the students were uneven and irregular on this dimension of the instrument and a point system had to be used to arrive at a total for the entire list of counselor qualities listed. The analysis of variance again displayed no evidence for concluding that race or sex of counselor or counselee had any influence on the way each counselor was graded.

Comments about the counselor. The number and nature of the comments made in response to questions about "things I liked" and "things I didn't like" about the counselor, and the positive or negative answers to the inquiry about making this counselor a full-time member of the program were tabulated and analyzed for race and sex influences, either on the part of the counselor or counselee. The sex of the counselee generated results that proved to be < .10, with the means displayed on Table 20 showing females more responsive in writing favorable comments about their counselors. Delineated further, White female counselees wrote most favorably about Black male counselors and Black female counselees followed the same pattern in commenting most positively
about White male counselors. Both Black and White male counselees gave the least complimentary reactions to their male counterparts of the opposite sex.

In summary, the hypothesis that Black students would have significantly better reactions to Black counselors than to White counselors found no substantiation in the analysis of the data. The solitary evidences of an effect tending toward the customary significance levels were the influences of counselor sex on anxiety arousal (0.10) and counselee sex in writing favorable comments about the counselor (0.097). Therefore, the conclusion must be made that the present research failed to produce sufficient evidence to prove that race is an important factor in determining anxiety arousal, in raising need for achievement, or in influencing counselor evaluation in an initial counseling interview aimed at raising academic need for achievement in disadvantaged students.

Analysis of the Effects of Counselor and Counselee Race and Sex Upon the Criteria Within the Experimental Group

The hypothesis (No. 3) that Black counselors would effect a significantly greater increase than that effected by White counselors on counselees' posttest measures of need for achievement, affiliation, and power was not supported by the analysis of the data. Table 22 illustrates the relative ineffectiveness of race in causing significant results in the pretest-posttest interaction, which would reveal any significant change produced by exposure to race as an independent variable. Not one criterion approached the customary .05 level, with intraception coming closest at .14. In examining the only two of the 23 variables showing a probability of occurrence beyond the chance level for race as a main factor, it can be seen immediately from the pretest means that the sampling procedure was not successful in producing a random distribution of subjects—the counselees were significantly different on their TAT Verbal Power and Affiliation scores before the treatment was administered. The impact of the posttest result of TAT Verbal Power, for example, is brought into perspective by a nonsignificant interaction of race (.61) with the pre-post difference. Even if the argument for greater significance in the posttest be made, the means created by Black counselors had decreased proportionately more in comparison with those generated by the White counselors, a result that points in a direction just opposite that of the hypothesis—the treatment tended to decrease the need for Power and Black counselors were responsible for a proportionately greater decrease than that caused by White counselors.

A similar outcome occurred on the TAT Verbal test of Affiliation in which the posttest mean differential is eclipsed by an even greater pretest dissimilarity. As with the TAT Verbal Power, the pre-post interaction effect with race as a factor was far from
significant (.51) and, though the posttest showed a measurable decrease, the White counselor mean of 1.25 was more than triple that of the mean measuring the effect by Black counselors (.39). The weight of evidence, in summary, appears to render the hypothesis that the effect of Black counselors would be significantly greater invalid, at least as tested on the sample in the present study.

The assumptions of hypotheses No. 4 and 5 that female counselors, and particularly Black females, would prove much more effective also failed to find validation in the analysis of variance on the experimental group. The test of the preeminence of White and Black female counselors over male counselors of both races revealed that no interaction results reached the .05 level (TAT Verbal Power at .08 and Heterosexuality at .14 made the closest approach) and that main factor significance resulted on only one of the measures, TAT Verbal Power, which out of 23 variables would define a chance occurrence. The means recorded by the clients of the White male counselors (Table 25) betray the bias of the sample in the pretest and reverse the anticipated results, if a reduction of power is taken to imply an increase in affiliation, by showing that White male counselors reduced TAT Verbal Power much more than did female counselors of either race, both in terms of posttest to pretest ratio and also in absolute difference. If TAT Verbal Power is argued to be a component of a cluster of variables, then the counter argument may be made that all four categories of counselors exhibited a lower posttest TAT Verbal Power score. The results might be more logically interpreted as an overall treatment effect of the counseling experience, an outcome that could generate other hypotheses of even greater value in determining counseling's effect upon power feelings in disadvantaged students.

Deference also showed a significant pretest and a nonsignificant pre-post interaction with the main effect. These statistics were borne out in the display of raw score means, which showed a consistent decrease in client scores of counselors of both races and sexes, with the single exception of White females' counselees. On TAT Affiliation the clients of White females rose 1.23 (Table 25) and on Deference the rise was 3.50. The high Deference pretest scores of the groups counseled by Black females and White males when contrasted with a mean 15 points lower for the Black male counselor group, are just another indication that the students, at least as tested on these measures, did not comprise a homogeneous group.

t-test analysis of the pretest and posttest means generated by Black female vis-à-vis White female counselors revealed that TAT n Affiliation was the sole variable supporting the hypothesis. The students counseled by White females exhibited a posttest increase significant at the .01 level when compared to the mean of students counseled by White females. Since the pretest means
were not significantly different, the results suggest that the White female counselors created an atmosphere of empathy which perhaps was not averted to consciously by the counselees but which surfaced in form of fantasy in the TAT. The need for affiliation as measured by the Context and TAT Verbal criteria displayed an opposite direction, a decrease in scores by both groups of counselees, so the most logical interpretation rests on the assumption that the picture TAT might have been sensitive to a deeper need for acceptance that was not grasped by the other affiliation measures.

None of the remaining 22 variables displayed a posttest increase large enough to lend any support to the hypothesis. By observation, it can be seen from Table 24 that generally the two groups of counselees moved in the same direction on most variables, and that mean increases were divided evenly enough between Black and White female counselors so as to eliminate the feasibility of resorting to a nonparametric approach for hypothesis validation. One pattern that does seem to appear is that the variables shown in Table 11 to have risen in the experimental group as a whole gained on the posttest scores produced by both groups of female counselors. Feeling n Ach, Graph n Ach, Context n Ach, Aggression, Order, Practice Darts, and Final Darts exemplified this joint increase, and only Deference displayed a tendency towards posttest decline, the others remaining mixed.

With the possible exception of the TAT n Affiliation test, the variables used in the study to measure the hypothesized needs do not indicate that neither race of female counselor elicited greater achievement and affiliation test responses from their counselees than did the other. The conclusion, perhaps, that best fits the data suggests that sex of counselor, at least in this research, does not play an important factor in changing tendencies to achievement and affiliation in the disadvantaged counselee.

The hypothesis (No. 6) that the female counselees would show a significantly greater increase than that shown by male counselees on posttest measures of need for achievement and affiliation also must remain unconfirmed. Not one of the 23 criteria proved to be significant, though Aggression as a main effect (.06) and Context Affiliation (.06) in the pre-post interaction came very close to the .05 level. The result that sex of counselee seemed to have practically no effect whatsoever is all the more remarkable given the number of significant main effects and interactions shown on Table 27. Especially noteworthy are the significant pre-post main effects of increase in Context n Ach, Ring Toss, and Order, and decrease in Context Affiliation and TAT Verbal Power, all of which give indication of the effectiveness of the treatment. Of interest for future research are the significant main and interaction
effects involving A, the race of the counselee. Heuristically speaking, this factor presents perhaps the most fertile area for further investigation.

In summary, the hypotheses stating that a more significant effect in terms of pre-posttest increase would be produced by Black counselors than by Whites, by females than by males, by Black females than by White females, and by female counselees rather than by male counselees—all these speculations failed to gain sufficient support from the experimental group data analysis to warrant acceptance. There were indications that opposite race and/or sex counselor-counselee combinations were as successful in raising posttest scores as like race and/or sex matchups, especially in the White female counselor-Black male counselee and Black male counselor-White male counselee dyads. Finally, as shown in Table 27, several significant posttest findings, in addition to those already reported, indicated that the counseling experience changed the means of the experimental group on Context n Ach, Context Affiliation, TAT Verbal Power, Ring Toss, and Order. Another variable reported earlier (Table 11) as a member of a cluster of instruments measuring contract counseling outcome approached significance: Final Darts (.08).

For research purposes, an interesting interaction uncovered by the analysis of the experimental group was the pre-posttest change in race of counselee and sex of counselor on intraception (.009). Since counseling often elicits an inner reflection, an investigation of how the race of the counselee responds to the sex of the counselor through the process of intraception might prove extremely valuable in counseling the disadvantaged.

**Limitations of the Study**

The present research provided, regretfully, only a three-day service to the Upward Bound-Bridge Program with which it was associated. Had funds been available, the continuation by the same counselor in the contract project would have been an ideal longitudinal experience and could have provided an excellent research opportunity at the end of the summer or even further into the year. A continuation of the contract concept was provided by graduate Counseling Psychology students from the same mid-western university that provided the counselors for the experiment, but it was a smaller group of three White males, one Black male, and one White female.

The second limitation to the study was the heterogeneous nature of the sample, at least in terms of the variables measured. It was only after the experiment was completed and the data analyzed that the disparity of the students on motivation measures was seen in the many instances of pretest statistical significance.
Finally, and perhaps most limiting in the statistical sense, was the size of the sample. In order to have at least four subjects in each combination of counselor race and sex and to guarantee a representative number of counselors in each category, 48 of the 87 subjects had to be randomly assigned to the experimental group, leaving only 19 to the control and 20 to the comparison groups. The cooperation of both counselors and students, however, produced data that was comparatively free of gaps and within the parameters of normal distribution required for the analysis of variance methods used.

**Insights and Implications for Further Research**

In a report to the Congress entitled "Problems of the Upward Bound Program in preparing Disadvantaged Students for a post-secondary education" (1974), the General Accounting Office stated that the Program, which was designed to "... provide low income students, who are potentially successful, but inadequately trained, with skills and motivation necessary to succeed in education beyond high school" (1974, p. 1), had never developed specific, measurable objectives for improving academic skills and motivation. The present research attempted to follow the recommendations made in the report by establishing a clear, measurable objective for improving motivation: a score increase on tests measuring need for achievement, need for affiliation, need for power, and other variables that have been shown by previous research to have an influence on a student's motivational level. Contract counseling, an ongoing process by which a student with the help of a counselor chooses a particular skill and designates the time and place to work on its development and, most important of all, to check on its development, was found to raise scores on 11 of the 23 criteria used. These variables described a feeling of power and need for achievement that aimed at aggressively but orderly pursuing a specifically-defined task under the direction of a counselor for the purpose of having control over the skill and also of gaining general acceptance. Although the changes were gradual when contrasted to a control and comparison group, the students in the counseling group did play a predominant part in significant change measured on clusters of motivational variables. These evidences of increased motivational level in regard to specified tasks when a self commitment is involved suggest that some of the academic behavioral objectives called for in Upward Bound might be successfully attained by the use of contract counseling.

Because of the appreciable lack of sufficient representation and numbers of both Black and White, male and female counselors in most Upward Bound Programs, an investigation was made as to whether the race or sex of the counselor made a significant difference in contract counseling outcome, and whether this difference might be accounted for by the sex of the counselee. From the analysis of the data, it appears that neither the race and sex
of the counselor, nor the sex of the counselee cause a significant difference. The analysis of the influence of the sex of the counselee does suggest that further research might be directed to testing the success of Black female counseling Black female, White female counseling Black male, and Black male counseling White male relationships. An interview Reaction Questionnaire filled out by students of both the experimental and control groups added more evidence to the conclusion that race and sex were not significantly differentiating factors in their perception of their counselor. The implication, then, appears to be that, given a counselor displaying better-than-average qualities of expertness, attractiveness, and trustworthiness, the method used in the counseling relationship is more important in affecting attitudes than the race or sex of either counselor or counselee. The findings of the research, therefore, point out areas of strength as well as weakness in one approach to raising motivation in disadvantaged students, but seem to make their main contribution in not supporting assumptions that race and sex were critical variables in academic counseling with disadvantaged students. If these conclusions can be supported by other studies, then contract counseling might be judged to be worth implementing in Upward Bound, and concern over race and sex of counselors in the Program might better be directed toward researching methods for achieving the primary goals of skill mastery and improvement in motivational level.
Practice Rooms (Darts & Dice) - 213
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Final Rooms
- 201
- 204

Counseling Rooms
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- 207
- 209-T
- 210-A
- 210-B
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- 211-E
- 214

(2) Counselors - 233
- 234

SECOND FLOOR
APPENDIX B

ROLE OF THE COUNSELOR

AIM: To raise the need for achievement and motivation level in the client so that he will assume personal responsibility to work especially on some particular academic skill that he feels he lacks. His agreement to try such a program should be committed to writing, with the specific task to be completed in a week written in his own hand, over his own signature and that of the counselor.

OUTLINE OF THE INTERVIEW:

1. Greeting the client by first name and shaking his hand, if appropriate, and offering him a chair. At all times attempt to be interested in the client and in his future.

2. An introduction of yourself in terms of your credentials and experience, so as to give the counselee an idea of your competence as a counselor.

3. Establishing a sense of trustworthiness for you by assuring him that the tape recorder is for his benefit, to determine what kind of counseling is needed in the program and to give him an opportunity through his own tape to have a record of his first contract.

4. To elicit from him how he likes the program and what he would most like to get out of it in terms of the skills he feels will be most helpful to him.

5. Suggest the contract program as a very effective method of developing good habits in reading, note taking, etc. and state the success it has had with other students like the client.

6. Ask him what he thinks he would like to start on—make it very specific, something easy, and be sure to have him write down which 15 minutes a day he will spend on it. If it is reading that he wishes to improve, reassure him that you will notify his tutor counselor to explain the workings of the reading machine and tell him how to make a word count.

7. Do not force him to make a contract, but try to find the reasons for his hesitancy, and encourage him to at least consider the possibility of trying the program and seeing its results.
8. Have the student make two copies of his contract using the carbon provided.

9. From what has transpired in the interview, and from what you have gleaned from the folder, make specific references to his manifested motivation and ability to make the most of his contract and/or summer program.

10. Wish him the best, and if you would like to see him again, make an appointment, or tell him that a special counselor tailored to his particular need will be assigned to him and he will be notified of the time of his appointment next week for the renewal of his contract, impressing him with the fact that keeping the contract the first week is very important.

11. Comment that, in your opinion, his need achievement self-rating should really be a little higher than what he had indicated, considering his earnestness and willingness to improve himself on his own--something most students his age aren't very prone to do.

12. Again, give him a sincere farewell and assure him of your confidence in his ability to have a productive summer.
Dear Counselor:

It's just about time to get ready for our big meeting at College on June 19. That's next Monday, and the meeting will be in the main building as you enter the College—that is, Erskine Hall, at 8:00 P.M., on the second floor, room 214. If you need transportation, or for any reason you can't make it, please call me at 488-2428.

Enclosed you will find some background material on the Upward Bound and Prep Programs which the students you will be counseling are enrolled in. Also, there is a sheet showing where Prep graduates are now attending college. Most important of all, however, are the pages describing the contract method and the only lines that you will have to memorize for your counseling interview. I had to structure the interview so as to make sure each youngster will be receiving essentially the same information. Don't worry, we will go over the actual contract making process Monday night and we'll role play a bit till you get the hang of it. The interviews won't last more than 25 minutes and you'll have four of them from 10:00 - 12:30 on Tuesday, June 20, and two more on Wednesday, June 21, from 11:00 to 12:30. Hope those times fit your schedule.

Thanks for being the most important part of this project. I think you will enjoy these students and I know they'll like you. Please call me if you have any questions -- 488-2428. See you Monday evening.

Gratefully yours,

Jack Valley
THE CONTRACT METHOD

During the academic year when this research was undertaken, it was general practice in the course to require students, in consultation with their instructors, to select for independent study an area of higher level study skills. Many of the students were underachievers with established patterns of poor study habits which they were either unable or reluctant to change, despite exposure in the classroom to the theories and practice of effective study skills. The present writer, therefore, decided to devise a structured contractual agreement whereby each student in his independent study would make a commitment with his instructor to change his behavior in the way best suited to his needs.

The assumption underlying this procedure is that each student is capable of learning more effective methods of study provided that the following demands are met. The student must declare openly what specifically he wants to improve and state to the instructor that he is willing to work for this improvement. Together the student and instructor must discuss and identify the behavior which is hindering the desired improvement. The student should state his problem in terms of a goal which he wishes to achieve. The instructor will aid the student in defining smaller achievable stages, leading to this goal, thereby creating the
opportunity for the student to achieve success experiences and be motivated to undertake more demanding tasks. When a sub-goal is identified and methods for achieving it are agreed upon between student and instructor, a written agreement, specifying the details is drawn up and signed by both student and instructor. The purposes of this contract are to make the student declare publicly the commitment to which he agrees and vest the responsibility for achieving his goal with him. On the data agreed upon for completion of the sub-goal as written in the contract, the student again meets with his instructor and reports on his progress. Both success and failure are discussed as specifically as possible and a new contract is drawn up taking into consideration the behavior manifested in the previous commitment. Just as rapidly as his own progress permits, the student advances to more complicated, challenging tasks. "Gradually the individual becomes more autonomous and self-directed as his behavior comes to be supported by intrinsic reinforcement from the new behavior itself" (Staats and Butterfield, 1965).

**Individual Study with the Contract Groups--Formulating Contracts**

When all tests were completed, the instructors held individual conferences with contract group students. Using the information from the Personal Data Sheets, the results of the diagnostic tests and the outcome of individual discussions about difficulties in studying, each student identified the area in which he felt he needed the greatest help. Once he had stated a goal that he wanted to achieve, the student together with the instructor devised
a plan of action that would be a first step towards achieving that goal. Often at this early stage, it was a matter of planning a systematic method of breaking a bad habit. With a problem of slow reading, for example, the student was expected to practice reading on a day-to-day basis for a specified length of time and in such a way as to overcome a word-by-word reading habit, and keep a daily record of his progress. Alternatively, it might be a matter of an expressed willingness to adopt a new behavior but an inability to identify exactly what was hindering the change. For example, when the expressed desire was to use time more effectively, the first task was to plan a detailed 24 hour schedule for the following week, keep an exact account of what was actually done, and report back the findings to the instructor.

When both student and instructor were agreed on the plan of action, the details were written on a specially designed form (see contract form). Both the student and the instructor then signed the contract and the student was given a copy to keep. The first contract for all students lasted a week, when it became due for discussion and renewal. In formulating the second and subsequent contracts, more specific and progressively more complex goals could be set, dependent on the experience gained and the success achieved in the preceding undertaking. The second and subsequent contracts lasted for two weeks. Each student, therefore, was expected to complete four contracts during the course.
APPENDIX D

DIALOGUE IN INTERVIEW

Tutor-counselor: "Dr. Allen, I would like you to meet Jim Taylor, one of our students here this summer" (Expertise).

Counselor: (Standing from chair, smiling and shaking hands if proper) "I'm Joe Allen, from Ohio State University, won't you sit down?" (Attractiveness).

(After both are seated, and nodding to the tape recorder microphone)

"I've been told that you will be getting a tape of this interview, so I'll try not to do too much of the talking (Trustworthiness). I see you brought a contract with you. Could you fill me in on what you've heard so far about the contract method?"

Fill in his explanation, and ask if he would like to try it.

"Is there one special thing that you would like to work on?"

"OK, let's see if we can't make up a contract for _________. How about filling in your name and whatever you think you'd like to start doing this first week. Don't make it too hard--just a little something for a starter."

"That sounds good. Now, what time of the day would be best for you to do that? Put that in for the time."

"Before you sign, are you sure that you want to do this? OK, you sign right here and I'll sign up, too. My signature means
that I think you're going to do this and do it well. In fact, looking at your self-rating on this need achievement curve, I think you underrated yourself. It seems to me that you belong more over here (two stanines up). Your contract may help you feel that way, too. Have a good summer."

(Shake hands and usher student out--then return to chair.)
APPENDIX E

CONTRACT FOR IMPROVED STUDY SKILLS

I ___________________________ make the commitment that in order to improve my rate of reading and ability of comprehension I shall, during the week beginning ___________________________,

________________________________________
________________________________________
________________________________________
________________________________________

Time: ______________________________________

__________________________

as agreed with my counselor on Date __________________________.

I shall report on my completed task to my instructor on

Date __________________________.

__________________________

Report of Fulfillment:

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Monday, June 19
8:00 A.M. -- Sociology and Political Science
Room 222
At the end of these classes, approximately 9:30, a sociological survey developed for the OEO will be administered in split half form.

9:00
Room 221
Meeting with 5 Prep Tutor Counselors and Mrs. Meyers. In attendance: Srs. Elvira, Sheila, Lamenlia, Barbara Hunt, and Mary Ellen Strunk.

Purpose: to brief tutors on their roles in simulation games.

9:45
Make certain that guard is out front to reserve parking spots for counselors.

10:00
Room 212
Check with Mr. Cepak on status of electronic equipment and bulletin board for locations and assignments.

10:00
Rooms 222 and 234
Prep students out of 8:00 Sociology and Political Science classes.

10:00 - 10:15
Prep students on break. Tutors' job not to let them beyond confines of Erskine Hall without permission. Have tutors properly stationed for this purpose.

10:15
Room 232
Reading and Study Skills class with Mrs. Meyers and all 30 Prep students.
Split half of the Exercise in Imagination will be given to half the classes (see instructions for teacher), and the other half of the class will receive the split half of the Elizabeth French test. Those receiving the Exercise in Imagination test will be divided into two sections, as will those receiving the Elizabeth French test, so that one section will receive the first part and the other will receive the second half of each test. Two tutor counselors will make sure with Mrs. Meyers that the test is properly signatured and answer any individual questions. The tests will be timed so that no student will have more than 5 minutes per picture or per sentence cue. Thirty seconds will be allowed between each picture or sentence. At the end of 16 1/2 minutes, time will be called and all the papers collected. Then those who have taken the Exercise in Imagination will receive the French Insight test and those who have taken the Insight Exercise will take the split half of the Imagination battery. Two minutes will be allotted for the reading of directions. The instructor will summarize the instructions for each group as before the previous administration, and then the same time allotment will be the rule. After 16 1/2 minutes the papers will be collected.

10:15

Dart board and dice and ring toss sets with taped markers on floor readied during this time in rooms 223, 222, 221, and 234 after students have been completely cleared from these classrooms.

11:10

The group will be split up into 2 groups for ring toss and darts and dice simulations. Group A will go to room 222 where dart boards (1) will be set up and shoe box with oversize dice in it will be on floor in center of semicircled chairs. Group B will go to room 234 where the same setup will be ready. Immediately the Master of Games in rooms 223 and 234 will explain the darts and dice game and then send 4 of the group to 223 from 222 and to 221 from Group B. After the practice rounds have been finished they will return and in the meantime, the Master of Games will appoint a score keeper and a judge. The distances and point totals will be on the boards previous to the games. After all have run through both darts and dice and ring toss, the class will be dismissed for lunch. Approximate estimated time for 15 students to practice and throw darts or dice and ring toss is 4 minutes per student or 60 minutes per group.
12:00
Return to classroom 232 for tape and explanation of contract program and personal data information instrument.

12:30
Dismissed. A final word will be given about the counseling sessions the next day for further explanation of the contract and its initial negotiation, and the students will be given their assignments and shown the rooms with the assigned counselor's names above them before going to lunch.
HORARIUM FOR UPWARD BOUND

Monday, June 19
8:30 - 9:15 -- English 2, Social Studies 1
Room 204
Split half administration of the two sets of protocols containing 3 pictures each, the first three to half the class and the last 3 to the other half of the class. The arrangement with the French test will be randomized with Group A receiving the first half of the Imagination test first and Group B receiving the second half of the French test second and the Group B will receive the second half of the Imagination test second.

9:15 - 10:00 -- English 1, Social Studies 2
Room 201
Group 1 in this class will receive the first half of the French test first followed by the 2nd half of the Imagination test. The Group 2 in this section will take the second half of the French test first and the first half of the Imagination test second.

10:00 - Break
Masters of games and practice tutors put up dart boards in 201, 205, 213, and 214.

10:15
All Upward Bound students assemble in room 204 and receive instructions as to how to play darts and dice and ring toss game. They are immediately split up according to their 6 tutors, the group of tutors one, two, and three going to 201 and the students under the care of tutors four, five, and six going to room 204. Immediately one tutor from each room takes 4 students to 214 from 201 and 4 from 204 to 213 where the game practice will be conducted by one of the masters of games. In the meantime, the Master of Games in the main room will appoint judge and a score keeper for darts and dice and ring toss. As the tutor brings back two practiced students from each practice room to the main gaming room, he will return with two more for practice till all have gone through both practice and performance trials. Then all students will take the Sociological Need Achievement battery in their individual rooms. Approximate time for 42 students to perform all these trials and take these tests is estimated at eighty minutes.
11:45

All students will return to room 204 for an explanation of the contract program, for the tape, and a filling out of personal need forms. A final word will be given about the counseling sessions the next day for further explanation of the contract and its initial negotiation, and the students will be given their assignments and shown the rooms with the assigned counselors' names above them before going to lunch.
HORARIUM FOR BRIDGE AND UPWARD BOUND PROGRAMS

Tuesday, June 20
8:00 - 10:00
Prep classes in Sociology and Political Science will be held as usual and at the very end appointment cards will be presented to those in the experimental group, with the explanation that the others will be given cards the next day for counseling. The Upward Bound students will have two regular classes ending at 10:00, at which time, before the break, the experimental group will be given their appointment cards for the late morning counseling sessions. Since their appointments will not be until 11:00, the students will attend their normal 10:15 classes and their tutor counselors will come to pick those with 11:00 sessions up at 10:45 and show them to their waiting rooms. At 11:15 those for 11:30 appointments will be taken from their classes, and at 11:45, at the end of the last class, the final 12 will be escorted to their counselors' quarters for the final sessions.

Before each counseling session, the student will be asked to rank himself on a stanine achievement curve. After each counseling session, three tutors stationed in the hall will guide all those who have been counseled to room 205 where they will be asked to fill out the counselor rating form. The counselor in charge will collect the rating form as the student leaves the room and thank him for his cooperation.

12:30
All counselors are invited for lunch and reminded about the next day's appointments with the control group.
Wednesday, June 21
8:00 - 10:00 -- Sociology and Political Science
   At 9:30, the second half of the Sociological Need Achievement test will be administered.

10:00 - Break
   The Prep students once again will be carefully watched so that they do not leave the confines.

10:15
   Writing skills class with Mrs. Meyers administering the other half of the tests that Groups A and B had not taken on Monday.

10:15
   As on Monday, the dart boards, dice, and ring toss are readied in rooms 221, 222, 223, and 234 after students have been completely cleared from these classrooms.

11:00
   The group will again be split up into 2 groups and the simulations carried on as before, only this time prizes will be awarded for most improvement instead of just high score.

12:00
   Those students not counseled yet receive counseling at this time, and are asked to fill out the counselor rating form.

12:30
   Dismissed for lunch.
HORARIUM FOR UPWARD BOUND PROGRAM

Wednesday, June 21
8:30 - 9:15
Room 204
Group A will receive the second half of the French test, followed by the second half of the Exercise of Imagination. Group B will take the first half of the Imagination test first and follow with the first half of the French Insight test.

9:15 - 10:00
Group 1 will receive the first half of the Imagination test and then the second half of the French test. Group 2 in this section will take the first half of the French test and the second half of the Imagination test last.

10:00 - Break

10:15
Rooms
201 All Upward Bound students will go to the rooms in which they took the simulations and these will begin immediately, with those in the control group going first. At 11:00, these control students will go to room 205 and take their Sociological Need Achievement survey. Then at 11:30 they will receive their counseling interviews and return to 205 for their post counseling form.

All Upward Bound students will be dismissed for lunch.
APPENDIX G

PERSONAL INFORMATION

NAME: ___________________________ AGE ____ SEX: M F DATE: _________

PRESENT SCHOOL:

GRADE:

DO YOU INTEND TO ENTER COLLEGE?

IF YOU HAVE ANSWERED YES TO THE LAST QUESTION, DO YOU KNOW WHAT YOU
WOULD LIKE TO STUDY AT COLLEGE? LIST THE SUBJECTS YOU WOULD LIKE
TO TAKE.

IF YOU HAVE ANSWERED NO TO THE QUESTION ABOUT COLLEGE, STATE BRIEFLY
WHAT YOU WOULD LIKE TO DO WHEN YOU LEAVE SCHOOL.

GIVE A LIST OF ANY WORKING EXPERIENCES YOU HAVE HAD.

LIST THE SCHOOL SUBJECTS YOU LIKE MOST.

LIST THE SCHOOL SUBJECTS YOU DON'T LIKE.
FAMILY DATA

ON THE FOLLOWING LINES, PLEASE LIST THE MEMBERS OF YOUR IMMEDIATE FAMILY, AND THE INFORMATION PERTAINING TO THEIR FORMAL EDUCATION.

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<tr>
<th>NAME</th>
<th>HS GRAD?</th>
<th>ADVANCED EDUCATION</th>
<th>DEGREE</th>
<th>OCCUPATION</th>
<th>AGE</th>
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ACADEMIC DIFFICULTIES:

CHECK THE AREAS YOU FEEL YOU HAVE TROUBLE HANDLING. PUT 2 CHECKS BY THESE AREAS OF MAJOR DIFFICULTY.

- English Grammar
- Schedule of Time for Study
- Inadequate Vocabulary
- English Composition
- Learning Textbook Material
- Choice of Occupation
- Reading Rate
- Term Papers
- Taking Tests, Quizzes
- Knowledge of the Library
- Comprehension (Reading)
- Math
- Speaking in Front of Groups
- Taking Lecture Notes

PLEASE WRITE A WELL-ORGANIZED PARAGRAPH AS TO WHY YOU ARE TAKING THIS SUMMER SESSION, BY WHOM IT WAS RECOMMENDED, AND WHAT YOU HOPE TO GAIN FROM THIS PARTICULAR EXPERIENCE.
PLEASE WRITE A WELL-ORGANIZED PARAGRAPH CONTAINING INFORMATION PERTAINING TO YOU THAT WOULD BE OF ASSISTANCE TO YOUR INSTRUCTORS IN HELPING YOU ACHIEVE EFFECTIVENESS AS A STUDENT AND AS A PERSON.
APPENDIX H

INTRODUCTION TO CONTRACT COUNSELING

This year we have a new program that has just been developed and tested at a nearby large university—and has been shown to be very successful. It's called the contract method of learning, and it's like any contract or bet that you would make to win something. Let's say that you bet the person next to you a dollar that you could get more points in the darts and dice game than he could. Well, that bet is like a contract that you two make, and if you hit the bull's-eye more times than he does, then you get the payoff. The contract that we are offering you is a kind of a gamble too. There's a whole team of us from the University that are betting that you'll take the risk and score higher this summer than in any other learning experience you've ever had. But our bet is not that you are going to get a better grade in some subject that you are taking here, but that you can teach yourself something on your own, something that you've always wanted to know and know you need. It's as simple as the contract you have in your hands. Each one of you will be able to talk over with a counselor, either tomorrow or Wednesday, what you would most like to get out of being here this summer. All of us know that we can blow through these six weeks and come out with nothing but a paid vacation. On the other hand, if you
decide to work on just one skill, like learning to read better, 
for example—that contract you have is for reading—you'll be 
surprised how much better you'll be able to read after just six 
weeks of trying it. Other people with a lot fewer brains than 
you have done it—and you can do it too. There's an ad put out 
by the U.S. Army that says "We can put you in the best shape of 
your life in 8 weeks." Well, we're betting that you can get in 
real good shape in 6 weeks! Any of you who have ever been on a 
team or tried to get into condition knows that you have to go at 
it every day—you have to have certain exercises you do and you 
have to have a special time to do them. Otherwise, you'll just 
do a few maybe, or worse yet, if you don't set aside a special 
time—you'll end up not doing them at all—you know how easy it 
is to let something go to the very last and then not get it done. 
Why I've heard that sometimes a person around here even misses 
breakfast because he'd rather stay in the sack, and that's bad 
when you even miss a meal.

That's where the contract comes in. It helps you, first of 
all, to pick out one thing and only one, 'cause if we try to do 
too many things, we often end up not doing anything. You write 
down in those blanks what your exercise routine is going to be, 
and the time you're going to be doing it every day. You'll notice 
at the bottom that each contract is only for a week and that every 
day there's a place for you to put in how long you spent, and how 
well you did. If you were in a game, you'd certainly keep score, 
and that's what a contract is for. But the most important thing
is to sign the contract, because when you sign something, that
means you really mean it—and when the counselor signs it, he
is taking upon himself a responsibility, too. He's saying that
he's going to do everything he can to help you help yourself.
As the old saying goes, two heads are better than one, and that's
what the contract method does. It puts two heads together to
solve one problem. But you've heard enough from me, I would
like to have you hear from the person who invented the contract.
She's an English woman brought to the University from London,
England, and her name is Gloria Goldman. Here's what she has
to say:
Play the tape. After the tape:

    Tomorrow, then, we will begin contract counseling. Each of
you will have a twenty to thirty-minute interview with a profes­sional counselor trained in the contract method. Because there
are so many to be counseled, the sessions will be scheduled over
the next two days, and all of you will be given appointment cards
now with the time of your session, the counselor that you will
be working with, and the room you will be meeting in. A cassette
tape of the interview will be made for you so that you will have
a good reminder from you yourself as to what you want to do with
your summer here.

    In the meantime, you might give some thought to what you
would like to improve on most. Is it note taking, reading, use
of the library, giving a speech? You can put out a contract on
it and make it yours this summer. Now we'll pass out your

appointments, which will also be on your bulletin board downstairs in case you should forget them.

Just one thing more—we are interested in what kind of a counselor would be best suited to your needs here in the program, so would you please be kind enough to fill out an Interview Reaction Questionnaire after your counseling session and grade your counselor on how well he counseled you. Thank you.
APPENDIX I
INTERVIEW REACTION QUESTIONNAIRE

We're interested in finding out how people feel about counseling sessions. For each question, there is a line with statements of opposite feelings or attitudes at each end. In the middle of the line, you will see a statement that indicates the feeling or attitude that is in-between the place on the line that shows the strength of your feeling or attitude about the question. Please be honest in marking the way you feel on the line.

1. After you finished a counseling session, how confident did you feel about the impression you'd made?

/ / 
not very confident about average very confident

2. Did you have an uneasy, upset feeling when you realized what the counseling sessions were like?

/ / 
was very upset was somewhat upset was not upset at all

3. During the counseling sessions, how fast did your heart beat?

/ / 
beat very fast faster than normal about normal

4. How much do you think your emotions affected the impression you made during the counseling session?

/ / 
hurt it very much hurt it slightly did not hurt at all

5. During the counseling session, how much did you perspire?

/ / 
a great deal more than usual not at all

6. During the counseling session, did you get so nervous that you couldn't say what you really wanted to say?

/ / 
said nothing the way I wanted to said some things the way I wanted to said most things the way I wanted to
7. During the counseling session, how much did you worry about what it would mean to make a bad impression?

<table>
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<tr>
<th>worried a lot</th>
<th>worried some</th>
<th>did not worry at all</th>
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Circle one answer in each of the following pairs of answers.

1. What would you like to know most about the counseling sessions?
   a. How well you have done compared to most others in this country, or,
   b. Just how well you have done for someone of your background.

2. Suppose I told you that you were doing very well during the counseling sessions.
   a. Would you want to know more about the counseling sessions, or,
   b. Would you feel good about that?

3. Suppose I told you that up until now you were doing very good during these counseling sessions.
   a. Would you feel good about what you have done so far, or
   b. Would you think mostly about the counseling sessions yet to come?

Now is the time to grade your counselor. Give the following grades according to how good the counselor was in counseling you:

A - very good       C - fair       E - bad
B - good           D - not so hot    F - real bad

My counselor should be graded:

____ on having the smarts
____ on really grooving with me
____ on being sincere
____ for being interested in me
____ in understanding what I'm like
____ on knowing my problems
____ on making me feel like I could tell him anything
____ on keeping a secret
____ for not being pushy
____ for being the kind of counselor this place needs
____ for liking me
____ for the help he gave me
The things I liked best about my counselor were:

The things I didn't like about my counselor were:

Would you like this counselor to be with the program full-time?
Expertness:

An expert person is one who knows what he is talking about. He has mastered some specific subject matter and is able to employ his knowledge and skills in such a way as to convince you of his competence. He is seen as an outstanding practitioner of his profession. A sense of another person's expertness might come from his achievements or accomplishments (a Nobel Prize winner, an award winning author, an All-American quarterback) or from the content or manner of his speaking or behaving (a physician's bedside manner or the dignified composure of a diplomat). In addition, a sense of expertness might come from his general reputation for being expert or from his holding a position which you believe denotes expertness.

On the other hand, when a person seems incompetent at what he does, you would probably consider him to be inexpert. His behavior, position or his reputation indicate that he is inept. For example, an instructor who makes obvious mistakes, a fifth-string guard on a football team, or a lawyer who has never won a case, would probably be regarded as inexpert.

Expert Interviewer:

In an interview, the expert is interested and relaxed. He has a neat but not "stuffy" appearance. He assumes a comfortable but attentive sitting position. He focuses his attention on the client and listens carefully to him. He is reactive to the client, his voice being inflective and lively, his facial expressions changing appropriately and he uses hand gestures. He speaks fluently with confidence and sureness.

The expert has prepared for the interview. He is informed as to why the client is there and is familiar with all information about the client to which the counselor or his agency would have access. He has these facts in mind and relates them as needed. His questions are direct and to the point, are thought provoking and follow an apparently logical progression. The questions seem spontaneous and conversational. The expert is willing to help determine if the client's decisions are right, but does not try to change the client's ideas forcefully. He lets the client do most of the talking and does not interrupt him. The expert moves quickly to the root of the problem. He points out contradictions in reasoning, and restates the client's statements as they bear
on the problem. Some of his conclusions are the same as those of the client. He makes suggestions and suggests possible solutions.

**Inexpert Interviewer:**

The inexpert is awkward, tense and uneasy. He seems to be afraid of the client and does not put him at ease. He may be dressed so casually that the client thinks not much help is to be offered. He seems too strict and dominating and too formal in attitude and action. His gestures are stiff and overdone. His speech is strained and unclear because it is too soft or too hard, mumbled or disjointed. His face is expressionless and his eyes are either glued on the client with an unchanging stare or he doesn't look at him at all. His voice is flat and without inflection, or filled with fear, anxiety, or self doubt.

The inexpert comes to the interview cold. He has not acquainted himself with any available information about the client. He asks vague questions which are trivial and irrelevant and have no common thread or aim. His questioning is abrupt and tactless with poor transitions. He asks too many questions like a quiz session or an investigator giving the client the "third degree." He seems to want the client to hurry and finish his statements so he can insert his um-hmms. The inexpert is slow in getting his point across and is confusing in his discussion of the client's problem. Sometimes he lets the client talk too much and sometimes he may interrupt him when he is speaking. The inexpert does not get to the core of the problem and does not drive to any points. He just doesn't seem to be getting anywhere. At the end he seems as if he is ready to give up also.
Trustworthiness:

A trustworthy person considers and respects your needs and feelings. You believe that the information and opinions he offers you are true and for your benefit, rather than for some selfish purpose. He is a person to whom you would feel comfortable confiding almost anything about yourself because you feel certain he would never use the information against you. He has no hidden purpose in what he says and does, but instead is open and honest about his motives. A sense of trust in another person might come from his reputation for being trustworthy, from his holding a position which you believe denotes trustworthiness, or from his sincere and unselfish interest in you.

On the other hand, when a person has some obvious or hidden bias which makes you believe he is acting for some selfish purpose, you would not trust his statements or opinions. For example, statements made by a known burglar who tries to persuade you to leave your doors unlocked, a businessman whose financial interests are involved in an issue, or a politician running for election, would be distrusted if seen as motivated by selfish purposes.

Trustworthy Interviewer:

The trustworthy interviewer will tell the client the extent to which their relation is confidential with some indication that there may be limits to the confidentiality. His voice and manner will be sincere, open and modulated and he speaks directly to the client, not out the window or at the floor. His statements are direct and without hesitation, implying he has nothing to hide and that he is not carefully censoring his statements so as to avoid disclosing something the client will not approve or with which he may disagree. Some statements may be so unexpected the client can only infer they must be the honest opinions of the interviewer. The trustworthy interviewer leans toward the client and uses hand and arm gestures that are open and un concealing rather than closed and withholding. He looks at the client directly rather than glancing furtively or suspiciously at him. Papers and notes which are visible to the client are left open and unguarded such that the client can see what they contain if he wishes. Something on the desk may even be extended toward the client or actually handed to him to read over. The interviewer does not talk about other clients by name or suggest he is revealing the confidences of other specific clients to the client he is now talking with.

Untrustworthy Interviewer:

The untrustworthy interviewer effusively exaggerates how confidential the relation is so that the client may wonder why he is making such an issue of it. Other statements are guarded
and hesitant as if he was checking everything he said in order to not rub the client the wrong way. He says he agrees with the client's statements when he obviously does not, and in doing so, contradicts statements he made earlier. He may correct statements in the middle of making them such that they fail to make much sense but serve to cover up an opinion the counselor doesn't want to reveal. In his statements he may hint that he leaks client information in casual or social situations but then insists the relation with the client is confidential. His body position and manner are physically distant and withholding from the client and his arm and hand gestures are closed and self protecting. For example, he may frequently cross his arms in front of his chest, and face his body away from the client. He looks at the client out of the corner of his eye, glancing away when the client notices him. He may look down his nose at the client or over the top of his glasses should he be wearing them. Papers are obviously concealed from the client and notes are made in a guarded and secretive manner. The tone of the interviewer is one of dishonesty, insincerity, and unreliability. He connotes that little he says can actually be relied upon.
Attractiveness:

An attractive person is one toward whom you feel similarity, liking, or compatibility. He has had some experiences in common with you and does not talk "up" or "down" to you. His behavior indicates that he has beliefs and attitudes in common with yours and that he is able to understand you. For example, a professor who tells you of his problems as a student that are much like yours, a child who gives you a big hug to show you he likes you, or a friend who expresses an opinion about a university official which agrees with your unstated impression, would probably be attractive to you.

On the other hand, you would probably not like nor be attracted to a person who seems to hold no beliefs or attitudes in common with yours, who in background or character has no similarities or common points of reference with yours, or who indicates disdain or dislike for you. For example, a person who dislikes the things you enjoy doing, who contradicts or disagrees with everything you say, who makes no attempt to understand you, or who expresses contempt for you, would be seen as unattractive.

Attractive Interviewer:

An attractive interviewer would be likely to meet the client at the door of the office, introduce himself by first and last name (no title), greet the client warmly, shake his hand, show him in and offer him a chair, offer a cup of coffee, adjust the window shade so the light suits the client, make a friendly comment. After sitting down himself, he would lean toward the client, move his chair in the direction of the client, look and smile at him, and respond warmly to him throughout the interview. During the interview, the attractive interviewer would indicate he likes the same things the client likes. He is enthusiastic and skillful in the things important to the client such as sports, college major, politics, courses, and hobbies. He may guide the client into discussion of such areas and then respond positively in the same direction as does the client. The interviewer is particularly alert for similarities in unusual activities since they are more striking. Such things as the part of the country the client is from, similar experiences at different times, and unusual ways of speaking, would be examples of special sources of similarity. At the close of the interview the attractive interviewer would indicate that he enjoyed talking with the client and might make some statement to the effect that "ordinarily many of these first interviews are quite routine, but I have found ours to be really quite special." "I look forward to our next meeting."
Unattractive Interviewer:

The unattractive interviewer does not go to the door to show the client in but rather tells him to come in. He does not introduce himself, does not offer to shake hands with the client, does not ask him to sit down, does not say anything before going into the subject of the interview, moves his chair away from the client and never smiles. He leans back in his chair and maintains an expressionless facial appearance. He occasionally covers his face with his hands and rubs his eyes to indicate boredom. He does not show any interest in the client and often turns to the side rather than facing the client. He may occasionally look at materials on the desk which are unrelated to the interview and make notes on them. At the outset of the interview he may be going over these same materials and continue to do so for about 30 seconds after the client enters. During the interview, the unattractive interviewer finds no points of similarity with the client. He meets the client's statements of liking with neutral remarks; he does not indicate positive interest. Several times he indicates surprise in the activity the client mentions and makes remarks indicating dislike or a lack of appreciation such as: "I've never enjoyed that", or "I've never seen much value in that." At the close of the interview, the unattractive interviewer may say something like, "Well that's all; you can leave now." He does not say anything like "Thank you, it has been a pleasure meeting you." If anything, he shows relief that the interview is over so he can get back to doing something he likes or considers important.
### APPENDIX K

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APPENDIX L

EXERCISE IN IMAGINATION

Name (Mr/Mrs/Miss) __________________________ Date __________________________
Last First

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

An important personal asset is imagination. This test gives you an opportunity to use your imagination, to show how you can create ideas and situations by yourself. In other words, instead of presenting you with answers already made up, from which you have to pick one, it gives you the chance to show how you can think things up on your own.

On the following pages, you are to make up and write out a brief, imaginative story for each of the six pictures. You will have about five minutes for each story. There is one page for each story (in any case, please do not write more than about 150 words per story.)

To help you cover all the elements of a story plot in the time allowed, you will find these questions repeated at the top of each page:

1. What is happening? Who are the people?
2. What has led up to this situation? That is, what has happened in the past?
3. What is being thought: What is wanted? By whom?
4. What will happen? What will be done?

Please remember that the questions are only guides for your thinking; you need not answer each specifically. That is, your story should be continuous and not just a set of answers to these questions.

There are no "right" or "wrong" stories. In fact, any kind of story is quite all right. You have a chance to show how quickly you can imagine and write a story on your own.

Try to make your stories interesting and dramatic. Show that you have an understanding of people and can make up stories
about human situations. Don't just describe the pictures, but write stories about them.

Now, turn the page, look at the picture briefly, then turn the page again and write the story suggested to you by the picture. Don't take more than 5 minutes. Then turn the page, look at the next picture briefly, write out the story it suggests, and so on through the booklet.

Total time for the six stories: 30 minutes.

PLEASE PRINT OR TYPE YOUR STORIES
What is happening? Who are the people? What has led up to this situation? That is, what has happened in the past? What is being thought? What is wanted? By whom? What will happen? What will be done?
Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.
Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.
Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.
Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.
Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.
Just look at the picture briefly (10-15 seconds), turn the page and write out the story it suggests.
APPENDIX M

EXERCISE OF INSIGHT

Please read instructions carefully

This is a test of your understanding of the reasons why people behave as they do. You will be given a characteristic behavior of each of a number of men. Your task is to explain why each man behaves as he does. Read each description and then decide what you think would usually be the reason why a man does what this man does. Decide what this man is like, what he wants to have or do, and what the results of his behavior are apt to be. If you think of more than one explanation give only the one you think is most likely. Write your answers in the spaces provided.

There are no "right" or "wrong" explanations. In fact, any kind of comment is quite all right. You have a chance to show how quickly you can imagine and write an explanation on your own.

Please begin each brief story or explanation with a complete sentence. Try to make your explanations of each person's actions interesting, dramatic and imaginative.
1. Bill always lets the "other fellow" win.

2. Ed feels upset if he hears that anyone is criticizing or blaming him.

3. Fred enjoys organizing groups and committees.

4. Joe is always willing to listen.

5. Frank would rather follow than lead.
EXERCISE OF INSIGHT

PLEASE READ INSTRUCTIONS CAREFULLY

This is a test of your understanding of the reasons why people behave as they do. You will be given a characteristic behavior of each of a number of men. Your task is to explain why each man behaves as he does. Read each description and then decide what you think would usually be the reason why a man does what this man does. Decide what this man is like, what he wants to have or do, and what the results of his behavior are apt to be. If you think of more than one explanation give only the one you think is most likely. Write your answers in the spaces provided.

There are no "right" or "wrong" explanations. In fact, any kind of comment is quite all right. You have a chance to show how quickly you can imagine and write an explanation on your own.

Please begin each brief story or explanation with a complete sentence. Try to make your explanations of each person's actions interesting, dramatic and imaginative.
6. Tom never joins clubs or social groups.

7. John's friends can always depend on him for a loan.

8. Don is always trying something new.

9. George said, "They probably won't ask me to go with them."

10. Pete said, "I'm pretty sure I can do it."
APPENDIX N
MULTIDIMENSIONAL MOTIVATION MEASURE

Self-Rating Scale

NAME: ________________________

DIRECTIONS

Each of us has some picture of what we are like and how we compare with others. One way to assess what we are like in comparison to others is to contrast our preferences for a variety of different activities and interpersonal relationships with the preferences of others. Although the number of such preferences may be infinite, it has been found that many can be grouped. Listed below are eight such groups on which you are to rate yourself. You are asked to compare yourself with other students since this is the comparison group you are now most likely to use when you think about yourself in relation to others. To illustrate how you are to make this comparison, the following example is given:

Sample: Compared to other students, how much do you like to attend school athletic events such as football and basketball games?

0% 10% 25% 40% 60% 75% 90% 100%

Like very much less Like somewhat Like about the same Like some- Like much Like very much less less as other students what more much more

Note that an "X" has been placed above "Like somewhat less" and through the dot representing 38%. This indicates that the student making this mark believes he likes to attend athletic events somewhat less than other students. However, he chose to rate himself toward the right side of the category. The specific point at which the "X" is placed indicates that only 38 out of 100 students would rate themselves lower. Therefore, in the sample above, the student making this rating is saying that he believes he likes to attend athletic events somewhat less than other students and, more specifically, that only 38% (roughly 2 out of 5 men) like less to attend athletic events than he does.
In comparing yourself with other students use both the general categories and the dots to make your rating. Thus, for each group below you are to read the description and then mark an "X" above the category and through the dot you believe best describes you in relation to the others. Try to rate yourself as you believe you are at this time. Even though you may not be sure how you compare with others, give the most accurate answer you can.

In being honest with yourself as you rate the scales below, do not hesitate to use the extreme categories, if they seem appropriate. It seems most likely that your ratings will vary from scale to scale rather than all falling in the middle or on one side of the scale or the other. The important thing, however, is to be as honest and as accurate as you can.
1. Compared with other students, how much do you like to do your best, to accomplish something of significance, to be able to do things better than others?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
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<th>75%</th>
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</thead>
<tbody>
<tr>
<td>Like very</td>
<td>Like much</td>
<td>Like somewhat</td>
<td>Like about the same</td>
<td>Like some-</td>
<td>Like much</td>
<td>Like very</td>
<td>much less</td>
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</table>

2. Compared with other students, how much do you like to find out what others think, to accept the leadership of others, to do what is expected of you?

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<td>Like very</td>
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<td>Like some-</td>
<td>Like much</td>
<td>Like very</td>
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3. Compared with other students, how much do you like to have written work neat and organized, to keep things neat and orderly, to organize details of work?

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<td>Like much</td>
<td>Like very</td>
<td>much less</td>
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4. Compared with other students, how much do you like to feel free to do what you want, to be independent of others in making decisions, to do things without regard to what others may think?

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<td>Like some-</td>
<td>Like much</td>
<td>Like very</td>
<td>much less</td>
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</table>
5. Compared to other students, how much do you like to analyze your own motives and feelings, to analyze the motives of others, to analyze the behavior of others?

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6. Compared with other students, how much do you like to persuade and influence others, to supervise others, to be a leader in groups to which you belong?

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7. Compared with other students, how much do you like to date, to engage in social activities with the opposite sex, to kiss those of the opposite sex?

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<td>as other students</td>
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8. Compared to other students, how much do you like to attack contrary points of view, to tell others off when disagreeing with them, to get revenge for insults?

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<tr>
<td></td>
<td>Like very</td>
<td>Like much</td>
<td>Like somewhat</td>
<td>Like about the same</td>
<td>Like somewhat</td>
<td>Like much</td>
<td>Like very</td>
<td>Like very</td>
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<td>much less</td>
<td>less</td>
<td>as other students</td>
<td>more</td>
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</tr>
</tbody>
</table>
For each of the following items, decide how often (frequently) you want to do or to be what the item describes. Place a check (✓) at that point on the scale that best describes your decision.

1. Do my very best in what I undertake.
   
   |   |   |   |   |   |
   | Never | Seldom | Occasionally | Often | Always |

2. Solve puzzles and problems that other people have difficulty with.
   
   |   |   |   |   |   |
   | Never | Seldom | Occasionally | Often | Always |

3. Be a recognized authority in some job, profession, or field of specialization.
   
   |   |   |   |   |   |
   | Never | Seldom | Occasionally | Often | Always |

4. Do things better than other people can.
   
   |   |   |   |   |   |
   | Never | Seldom | Occasionally | Often | Always |

Now, we would like to know how you feel about some things outside of work. Try to pick the answer that describes the way you feel most of the time.

1. In your opinion, is the best thing about games that they let people find out how good they are compared to others, or they let people show their skills and talents?
   
   compare with others, or show skills and talents.

2. If someone was going to give you a gift, would you rather get an inexpensive gift now, or wait a year and get a more expensive gift?
   
   inexpensive gift now, or a more expensive gift in a year.

Check the answer you prefer most of the three, and then check the answer which you least prefer.

1. What would you like to do most? Which of the three would you least like to do?
   
   a. Make friends easily
   b. Do as well as most students your age
   c. Defend yourself if attacked

   most least
2. How about these aspects of a job? Which of these would you want most? Which of the three would you want least?

a. A job where you had to think for yourself
b. A job where the people you work with are a nice group
c. A job where you have a lot to say in what's going on

_____ most _____ least

Here are statements people have made. In each pair of statements, choose which of the two comes closer to the way you think.

1. a. What happens to me is my own doing.
   b. Sometimes I feel that I don't have enough control over my life.

2. a. I am the kind of person who plans his life ahead all the time.
   b. I am the kind of person who lives more from day to day.

Here are some questions which ask you to describe yourself or your feelings in certain situations. Circle the answer which best describes you. There are no right or wrong answers: we just want to know how you would describe yourself.

1. If you were on a job and you were thinking of quitting, why do you suppose you'd quit? Which of these would come closest to describing you?
   a. Too much competition among workers in the job, or
   b. You were a much better worker than anyone else?

2. If you'd finished a hard job, which would you think about?
   a. Whether your boss thought you did a good job, or
   b. Whether you thought you did a good job?

Which of the following questions would you most like to hear about yourself?

1. Which would you rather overhear about yourself?
   a. (His/Her) opinion carries a lot of weight among people who know (him/her), or
   b. People like to live next door to (him/her).

2. Now these two, Which would you rather hear about yourself?
   a. Other people like (him/her) very much, or
   b. (He/She) could do anything (he/she) sets (his/her) mind on doing.
Consider all the various aspects of achievement in your life. Taking all of these aspects into account, make an overall judgment of how motivated you are to achieve.

On the scale below, please indicate your overall judgment of how motivated you are to achieve compared to other students. The graph shows where the estimates of a large number of students would fall on the scale. Note that most of the estimates (54 percent of them) are between "somewhat less" and "somewhat more." As we move away from the center of the scale, the number of estimates falls off rapidly and very few students (only 4 percent) estimate themselves to have "very much less" or "very much more" need for achievement than most other students.

Now make a check (✓) at that point on the scale which best indicates your estimate of how much need for achievement you have compared to other students.

Graph: Distribution of the estimates of a group of students.

Percentage of estimates in each category

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>very much less</td>
<td>4%</td>
</tr>
<tr>
<td>much less</td>
<td>7%</td>
</tr>
<tr>
<td>considerably less</td>
<td>12%</td>
</tr>
<tr>
<td>somewhat less</td>
<td>17%</td>
</tr>
<tr>
<td>about the same</td>
<td>20%</td>
</tr>
<tr>
<td>somewhat more</td>
<td>17%</td>
</tr>
<tr>
<td>considerably more</td>
<td>12%</td>
</tr>
<tr>
<td>more</td>
<td>7%</td>
</tr>
<tr>
<td>very much more</td>
<td>4%</td>
</tr>
</tbody>
</table>

Scale:

- very much less
- much less
- considerably less
- somewhat less
- about the same
- somewhat more
- considerably more
- more
- very much more
APPENDIX 0

VEROFF SURVEY SUBTEST ITEMS USED IN THE

MULTIDIMENSIONAL MOTIVATION MEASURE

A PRIORI ACHIEVEMENT MOTIVATION SCALES

Other Achievement Activity Motive (Veroff et al., 1971c, p. 45c)

1. If you were going to play a game of cards, would you rather play a game where you had to think a lot to win or one that was fun without much thinking?

   ___ think a lot, or, ___ was fun without thinking.

2. In your opinion, is the best thing about games that they let people find out how good they are compared to others, or they let people show their skills and talents?

   ___ compare with others, or, ___ show skills and talents

3. In your spare time do you think mostly about the future, or the past and present?

   ___ the future, or, ___ the past and present

4. If someone was going to give you a gift, would you rather get an inexpensive gift now, or wait a year and get a more expensive gift?

   ___ inexpensive gift now, or, ___ a more expensive gift in a year.

Personal Efficacy Scale (Veroff et al., 1971a, p. 75)

<table>
<thead>
<tr>
<th>Item</th>
<th>Point Credit</th>
<th>Item Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE.1</td>
<td>1</td>
<td>What happens to me is my own doing.</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Sometimes I feel that I don't have enough control over my life.</td>
</tr>
<tr>
<td>Item</td>
<td>Point Credit in Scale</td>
<td>Item Alternatives</td>
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<tr>
<td>PE.2</td>
<td>1</td>
<td>In my case, getting what I want has little or nothing to do with luck.</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Many times, I might just as well decide what to do by flipping a coin.</td>
</tr>
<tr>
<td>PE.3</td>
<td>1</td>
<td>I am the kind of person who plans his life ahead all the time.</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>I am the kind of person who lives more from day to day.</td>
</tr>
<tr>
<td>PE.4</td>
<td>1</td>
<td>When I make plans ahead, I usually get to carry things out the way I expected.</td>
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<tr>
<td></td>
<td>0</td>
<td>When I make plans ahead, things usually come up to make me change my plans</td>
</tr>
</tbody>
</table>

Past Test Anxiety Scale (Veroff et al., 1971a, p. 74)

1. After you finished an important test, how confident did you feel about how you'd done?

   Not very confident   About average   Very confident

2. When you took a final exam, did you have an uneasy, upset feeling?

   Was very upset    Was somewhat upset    Was not upset at all

3. When you were working on important tests, how fast did your heart beat?

   Beat very fast    Faster than normal    About normal

4. How much do you think your emotions hurt your performance on the tests?

   Hurt it very much    Hurt it slightly    Did not hurt at all

5. When you were taking an important examination, how much did you perspire?

   A great deal    More than usual    Not at all
6. During tests, how much did you worry about what it would mean to fail?

Worried a lot | Worried some | Did not worry at all

7. During a final examination, did you get so nervous that you couldn't remember some things you really knew?

Forgot most of what I knew | Forgot a few things I knew | Did not forget anything I knew

Mastery Scale (Veroff et al., 1971, pp. 72-73)

<table>
<thead>
<tr>
<th>Item</th>
<th>Symbol</th>
<th>Point Credit in Scale</th>
<th>Item Alternatives</th>
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<tbody>
<tr>
<td>* pc7</td>
<td></td>
<td></td>
<td>Which would you rather hear about yourself?</td>
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<tr>
<td></td>
<td>0</td>
<td>Other people like him very much.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>He can do anything he sets his mind on doing.</td>
<td></td>
</tr>
<tr>
<td>pc9</td>
<td></td>
<td></td>
<td>Which would you rather hear about yourself?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>He is a really dependable and loyal friend.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>He is always ready to meet challenges that come his way.</td>
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<tr>
<td>* ie2</td>
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<td>If you learn you are doing well on the tests, would you:</td>
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<tr>
<td></td>
<td>0</td>
<td>Feel good about that</td>
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<tr>
<td></td>
<td>2</td>
<td>Want to know more about the tests</td>
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<td>tlc</td>
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<td>Would you want your child to want very much to do his best:</td>
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<td>0</td>
<td>Least (Alternatives: stand up for his rights, show kindness toward his playmates)</td>
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<tr>
<td></td>
<td>1</td>
<td>Neither</td>
<td></td>
</tr>
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<td></td>
<td>2</td>
<td>Most</td>
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</tr>
<tr>
<td>Item Symbol</td>
<td>Point Credit in Scale</td>
<td>Item Alternatives</td>
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<tr>
<td>t6c</td>
<td></td>
<td>Would you like a job where you can show your real skills:</td>
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<tr>
<td></td>
<td>0</td>
<td>Least (Alternatives: where no one bosses you around, where you have lots of friends)</td>
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<tr>
<td></td>
<td>1</td>
<td>Neither</td>
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<td>2</td>
<td>Most</td>
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**Future Orientation Scale**

<table>
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<th>Item Symbol</th>
<th>Point Credit in Scale</th>
<th>Item Alternatives</th>
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</thead>
<tbody>
<tr>
<td>* ie3</td>
<td></td>
<td>If you learn you are doing well on the tests, would you:</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Feel good about what you've done so far</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Mostly think about the tests yet to come</td>
</tr>
</tbody>
</table>

**Autonomy-Power Scale**

<table>
<thead>
<tr>
<th>Item Symbol</th>
<th>Point Credit in Scale</th>
<th>Item Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>pcl</td>
<td></td>
<td>Why would you quit a job?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Had too many things to decide about</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Had too little to say about how things got done</td>
</tr>
<tr>
<td>pc5</td>
<td></td>
<td>What do you think about after a hard job?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Whether the boss thought you did a good job</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Whether you thought you did a good job</td>
</tr>
<tr>
<td>* t7a</td>
<td></td>
<td>Would you want a job where you had to think for yourself?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Least (Alternatives: people you work with are nice group, you have a lot to say in what's going on)</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Neither</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Most</td>
</tr>
<tr>
<td>Item</td>
<td>Point Credit Symbol in Scale</td>
<td>Item Alternatives</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>* pc6</td>
<td></td>
<td>Which would you rather overhear about yourself?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>People like to live next door to him.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>His opinion carries a lot of weight among people who know him.</td>
</tr>
<tr>
<td>* pc10</td>
<td></td>
<td>Which would you rather overhear about yourself?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>He is fun to have at a party.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>People like to go to him for advice on important matters.</td>
</tr>
</tbody>
</table>

Social Comparison Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Point Credit Symbol in Scale</th>
<th>Item Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>pc2</td>
<td></td>
<td>Why would you quit a job?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Too much competition among the workers</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>You were a much better worker than anyone else</td>
</tr>
<tr>
<td>iel</td>
<td></td>
<td>What would you like to know about the tests?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>How well you did compared to others in the country</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>How well you did compared to someone of your background.</td>
</tr>
<tr>
<td>t2b</td>
<td></td>
<td>Would you like your child to do as well as most kids his age?</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Least (Alternatives: make friends easily, defend himself if attacked)</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Neither</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Most</td>
</tr>
</tbody>
</table>

* Component of the Achievement Orientation Scale
APPENDIX P
INTERVIEW REACTION QUESTIONNAIRE COMMENTS

"The things I liked best about my counselor were:"

Black Male Counselor - White Male Counselee

1. His being patient with my questions.
2. On making me feel like I could tell him everything.

Black Female Counselor - White Female Counselee

1. Easy to talk to. Made me feel easy about talking to her. Asked my opinions.
2. She was smart, understanding, and clear on certain facts.

Black Male Counselor - White Female Counselee

1. He got right to the point. He was interested in my concerns and made me feel good and composed. He was really concerned. I couldn't have been more pleased with the sessions...he talks in a very good, understandable way. He seemed to know what he was doing.
2. He understood me.
3. He was very nice and sincere and he helped me a lot.

White Male Counselor - Black Male Counselee

1. Attitude and the way he did things.
2. Straight to the point. Made suggestions instead of demands.
3. He developed a good rapport with me during the session.
4. His attitude toward our discussion.

Black Female Counselor - Black Female Counselee

1. For being the kind of counselor this place needs - for real the way she understands problems.
2. Her attitude.
3. Her ability to level with me so she could dig where I was coming from and vice-versa.
4. We can talk to each other and she really cares.
5. Her overall attitude and her ability to relate and understand sincerely.

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6. She was interested in what I liked. She had done some of the things I'm doing.
7. I could talk about things that I needed or wanted to know.

Black Female Counselor - Black Male Counselee

1. She was very sincere to know more about my future plans and she listened with the will to learn more about me.
2. She was sincere and had a nice personality.
3. Pretty, nice, warm, interested.
4. She's pretty nice, talked like a real person.
5. Her nice manner and interesting voice. And she was really concerned with me.
6. She motivated me into self-confidence. Meaning I'll be what I want to me.
7. She was a nice young lady.

Black Male Counselor - Black Female Counselee

1. He was quite nice and fun to talk to.
2. He made me feel relaxed.
3. He tried to make me feel at home. Told me not to be nervous. He really explained the counseling to me.
4. That he really wanted to help me.
5. He was okay.

White Male Counselor - White Male Counselee

1. His personality, he was able to understand my problem and told me what to do and where to go to help myself. Knows about people my age. Cool guy!!
2. His attitude was not nosey. If I wanted to say something, I would.

White Female Counselor - Black Female Counselee

1. She was very nice and always smiled.
2. She showed that she was interested in me, and wanted to give me help in whatever I needed.
3. The way she mixed my working problems with the things I liked to do. Also the way she told me things about herself.
4. It would be hard for me to say what I liked about her because I just met her.
5. She held a very short session. Very quick.
6. Her attitude, the way she understood and tried to help me and my problem, and best of all helping me!
7. She wasn't talkative, pushy in making me take time and days out to study what I need help in most.

White Male Counselor - Black Female Counselee

1. He made you feel free to say anything. He seemed real understanding! And he brought himself down to your level so that you could really communicate.
2. Way he compared himself to my problems.
3. His attitude and his great concern and the way he went about presenting himself to me.
4. His handsomeness, his way of making you feel comfortable. His conversation about people, on being sincere.
5. He gave me more confidence in myself to do more or about what he really thinks that I can do.
6. The way he gave me instructions on how I could get help.

White Female Counselor - White Male Counselee

1. I could talk very easily to her and helping me resolve my problem with confidence. Knowing what my problem is.
2. She had a warm and friendly attitude. A good counselor should always be understanding and willing to accept people for what they are. She had this quality.
3. Her good looks.

Black Female Counselor - White Male Counselee

1. The way she made me feel easy talking to her.
2. The quickness of her interview.

White Female Counselor - Black Male Counselee

1. She made me feel quite comfortable and she seemed very sincere in understanding my problem.
2. Was the way she talked to me.
3. On being interested in me and trying to help me.

Black Male Counselor - Black Male Counselee

1. He's cool.
2. He gave it to me straight.
3. The way he held a conversation.
4. Wasn't nosey and not giving me the impression I was taking up his time.
5. The way he tried to understand my problems and the commitment I made to myself and the way I was trying to express the situation to him.
6. He tried to help me solve my problem if and when I had any and he tried, I think, to understand me as a person.
White Female Counselor - White Female Counselee

No comments were made.

White male counselor - White Female Counselee

No comments were made.

"The things I didn't like about my counselor were:"

Black Male Counselor - White Male Counselee

1. The way he seemed to be giving me a speech that applied to everyone rather than talking with me personally.

Black Female Counselor - White Female Counselee

No comments were made.

Black Male Counselor - White Female Counselee

No comments were made.

White Male Counselor - Black Male Counselee

1. He was talking...using too many words I couldn't understand.
2. Offered me a Winston and I smoke Salem.

Black Female Counselor - Black Female Counselee

No comments were made.

Black Female Counselor - Black Male Counselee

1. She should have anticipated some of my weaknesses.

Black Male Counselor - Black Female Counselee

1. He was okay, I didn't like the idea of him taping the session. I don't like tape recorders. But I let him because I think he wanted to. That's what messed things up.

White Male Counselor - White Male Counselee

1. Trying to prove he's got some of these problems or he tries to agree without really knowing.
White Female Counselor - Black Female Counselee

1. The fact that I was being taped.
2. Could not say honestly.

White Male Counselor - Black Female Counselee

1. He talked more than I did (crossed out)

White Female Counselor - White Male Counselee

No comments were made.

Black Female Counselor - White Male Counselee

1. Went too quick. Could have been more detailed in explanation (refuting "like" #2)

White Female Counselor - Black Male Counselee

1. She didn't understand me too well at first.

Black Male Counselor - Black Male Counselee

1. Sometimes he didn't tell me what I wanted to know in some cases; he didn't try to push me.

White Female Counselor - White Female Counselee

No comments were made

White Male Counselor - White Female Counselee

No comments were made.
APPENDIX Q

FREQUENCY DISTRIBUTION OF INTERVIEW REACTION

QUESTIONNAIRE RESPONSES

<table>
<thead>
<tr>
<th>Counselors</th>
<th>Counselees</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>M</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>M</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>M</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>M</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B</td>
<td>M</td>
<td>7</td>
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<td></td>
<td>F</td>
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<td>B</td>
<td>M</td>
<td>6</td>
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<td>F</td>
<td></td>
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<td>W</td>
<td>M</td>
<td>6</td>
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<td>F</td>
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<td></td>
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<tr>
<td>B</td>
<td>M</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
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<td></td>
<td>F</td>
<td></td>
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<td></td>
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<tr>
<td>B</td>
<td>M</td>
<td>3</td>
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<td></td>
<td>F</td>
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<td>F</td>
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<tr>
<td>B</td>
<td>M</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
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<tr>
<td>W</td>
<td>M</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>

B - Black
W - White
M - Male
F - Female

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APPENDIX R

DESCRIPTION OF THE DARTS AND DICE GAME

Instructor's Note

The darts and dice game is a means of getting students to discover and discuss the difference between taking personal responsibility for their actions and leaving things to chance. If they depend on their own skill to win the game—throwing the darts—they are taking personal responsibility. If they choose to cast the dice, they leave the outcome of the game to chance. Also during the game the other two action characteristics of people with high n Ach (taking moderate risk and using concrete feedback to modify behavior) are re-introduced.

Setup and Procedure

Game equipment:

- Dartboard with seven possible scores--100, 80, 60, 40, 30, 20, 10--and at least six darts.
- Two oversized dice.

Regulations:

- Darts are thrown from a distance of 12 feet. The bull's-eye should be 4 feet 9 inches from the floor.
- The dice are cast from a shoebox.
The object of the game is to make points on each throw of the darts or dice. Points are made when the player makes his bid, i.e., before each throw, the player bids for a certain score on the dartboard or one of several outcomes from rolling the dice. If the player makes, or betters his bid, he receives the number of points he bid. If he does not make his bid, he receives no points. What must be achieved with the darts and dice to obtain various numbers of points is given in the attached table. It should be noted and explained to the players that the mathematical chances of making a certain number of points are the same whether they cast dice or throw darts. Thus their basic choices are how they want to earn points and how many points they bid for.

As with the ring toss game, players may strive to better their scores, to achieve unique results, or to do better than other players. Also, as in the ring toss game, they have an opportunity to take moderate risks (i.e., to bid for scores between 30 and 70) and to use concrete feedback to modify their behavior (e.g., they may decide to change their bids, to throw differently, to change from darts to dice).

There are two basic rounds to the game, with potential variations in later rounds at the discretion of the instructor.

The first round consists of six throws of either darts or dice. Each player first decides whether to throw the darts or to cast the dice. Once decided, he cannot change from darts to dice, or vice versa, during the round. Before each throw the player states his bid. Bids and results for each of the six throws are recorded on the Darts and Dice Game Record Form.
The second round is exactly like the first. Players choose darts or dice, bid and throw six times.

A possible third round is team competition. Essentially it is played in the same way rounds one and two are played. However, each person is a member of one of two teams. Players are matched in pairs according to their total previous scores and divided into teams. Team points are totaled at the end.

Discussion

The discussion should help the participants to clarify the difference between personal responsibility and chance. Although, statistically, the dice win the game as surely as the darts, they do not demand personal skill or allow for the use of concrete feedback to modify behavior. The students should analyze their behavior during the discussion after the game to see if they actually exhibited n Ach characteristics, and why or why not. The final portion of the discussion should be devoted to the generalization of these ideas to their real life situations.

These questions might be used to start discussion:

1. Against whom or what were you competing?

2. Why did you choose the darts—or dice?

3. Why did (didn't) you change your bid after the _____ throw?

4. Why did you change to darts (dice) after the first round?

5. Who played the game most successfully? Who won? How did he win?

6. Why did you choose the high-risk (low-risk) bids?
7. Do you think it is just as satisfying to win with the dice as with the darts?

8. Can you think of other situations where you have the choice of taking responsibility or leaving the result to chance? Which choice do you usually make?

9. In what situations have you taken the initiative to make things happen the way you wanted them to?

Additional Comments

A few comments about "personal responsibility" may be of help to the instructors in regard to the discussion. The essence of personal responsibility is having control over what happens. In the most sparkling examples, personal responsibility is taking the initiative to get things done. People who take initiative do so without being compelled, assigned, or asked. They are "self-starters," originators, organizers. People who get ahead, people who are successful businessmen, tend to take initiative and personal responsibility. They don't like to leave things to chance.

In a sense, this game illustrates only the most rudimentary aspect of personal responsibility. Its other, and far more important aspects, must be taught in other ways: In the discussion following the game, through case studies, through examples given by the instructor or identified in the participants, through the self-change projects, etc.

As a general goal during the course the participants should be taking more and more personal responsibility, more and more initiative. In order for this to happen, instructors can provide opportunities, but, obviously, cannot instruct participants to
take initiative. Spontaneous examples of participant initiative can be identified and rewarded. As a general rule, high standards are set, but the participants should be allowed to retain the initiative. Exactly how this is implemented in class, of course, must be determined by the instructor in his particular teaching context.
**Darts and Dice**

Each man has ten throws. Each throw may be either of dice or of a dart. Before each, each participant must declare how many points he is going for. The table below gives the standard to be reached (either for darts or dice) in order to make a given number of points.

<table>
<thead>
<tr>
<th>Points</th>
<th>Darts&lt;sup&gt;X&lt;/sup&gt;</th>
<th>Dice&lt;sup&gt;Y&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100 (3%)*</td>
<td>2 on 1st die, and 2 or 4 on 2nd die (5%)+</td>
</tr>
<tr>
<td>85</td>
<td>80 or better (15%)</td>
<td>2 on one die (17%)</td>
</tr>
<tr>
<td>70</td>
<td>60 or better (31%)</td>
<td>2 or 4 on one die (33%)</td>
</tr>
<tr>
<td>50</td>
<td>40 or better (53%)</td>
<td>2, 4, or 6 on one die (50%)</td>
</tr>
<tr>
<td>30</td>
<td>30 or better (67%)</td>
<td>2, 3, 4, or 6 on one die (67%)</td>
</tr>
<tr>
<td>15</td>
<td>20 or better (79%)</td>
<td>2, 3, 4, 5, or 6 on one die (83%)</td>
</tr>
<tr>
<td>5</td>
<td>Hit the board (87%)</td>
<td>2, 3, 4, 5, or 6 on 1st die or 2, 3, 4, 5, or 6 on 2nd die (95%)</td>
</tr>
</tbody>
</table>

<sup>Y</sup> - Dice thrown from shoe box
<sup>X</sup> - Darts thrown from 12 ft., bull's eye is 4'9" from floor
* - Percentage based on 150 throws of trainers when "cold"
+ - Percentage figured "mathematically"

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