THE EFFECTIVENESS OF A BEHAVIOR ORIENTED THERAPY AND AN INSIGHT ORIENTED THERAPY ON THE ACADEMIC ACHIEVEMENT OF "EDUCATIONALLY-DISADVANTAGED" STUDENTS

Thesis for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY

PAUL ALBERT AIKIN

1969

This is to certify that the

thesis entitled

THE EFFECTIVENESS OF A BEHAVIOR ORIENTED THERAPY AND AN INSIGHT ORIENTED THERAPY ON THE ACADEMIC ACHIEVEMENT OF "EDUCATIONALLY-DISADVANTAGED" STUDENTS

presented by

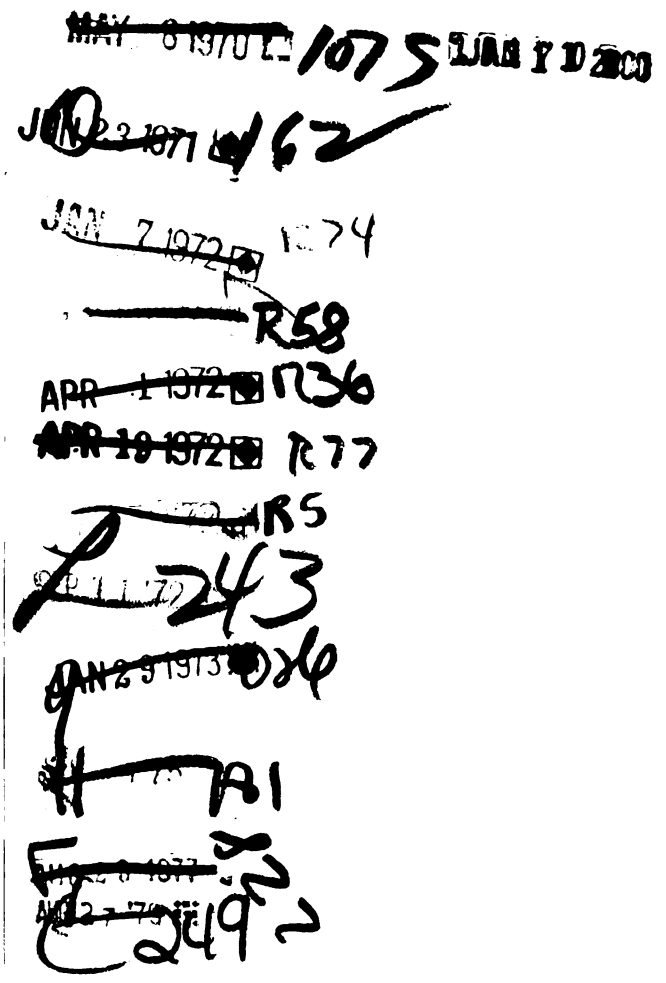
Paul Albert Aikin

has been accepted towards fulfillment
of the requirements for

Ph. D. degree in Psychology

David M. Wanton

Date _____



ABSTRACT

THE EFFECTIVENESS OF A BEHAVIOR ORIENTED THERAPY AND AN INSIGHT ORIENTED THERAPY ON THE ACADEMIC ACHIEVEMENT OF "EDUCATIONALLY-DISADVANTAGED" STUDENTS

By

Paul Albert Aikin

Statistics indicate that a disproportionately small percentage of low income, minority group students are admitted to the universities and once admitted, a disproportionately large number fail to graduate. The purpose of this study is to explore the differential effects of a structured, behavior modification approach and a traditional, insight-expressive approach on the academic performance and self-concept of specially admitted, low income, minority group college students.

In addition to treatment subjects, a sample of regularly admitted, low ability students, matched with the treatment groups on the basis of ability level (CQT Score) and sex were drawn from the general population of predominately white, middle class freshmen students to serve as no-contact control subjects.

One treatment group received structured, behavior modification (SBM) counseling and the second treatment

group received traditional, insight-expressive (TIE) counseling. Grade point average, number of credits earned for fall, winter and spring terms, and number of terms completed are criteria measures taken for the treatment and control groups. Pre- and post-test measures on two personality tests, a post-treatment questionnaire, mean number of sessions attended, and proportion of subjects who accepted proffered counseling were taken for the two treatment groups.

It was predicted that the treatment subjects would perform significantly better than no-contact, control subjects matched on sex and CQT ability level. However, the results indicate that a group of predominately white, middle class students receiving no treatment performed significantly better, as measured by GPA and number of credits earned, than a group of Negro, low income students matched on ability level and receiving treatment. These results are true of the fall and winter quarters but the differences between groups are no longer significant by the spring quarter.

Results of the comparison of treatment groups indicate no significant differential effects in the academic performance, in the perceived change in planning and use of time, study skills, self-esteem and adjustment, and in the attitudes toward counseling of the subjects receiving the SBM treatment or the TIE treatment procedure.

The finding of no difference occurs even though the subjects in the SBM treatment group reported having experienced a significantly greater level of counselor structuring than subjects from the TIE treatment group. However, the subjects from the SBM treatment group attended a greater number of terms, attended a greater number of counseling sessions, and accepted the proffered counseling in greater numbers than did the subjects from the TIE treatment group. Only in this area of greater persistence and acceptance of counseling do the treatment groups differ significantly.

Treatment groups were combined to explore the relationship between change in GPA and change in personal adjustment and self-concept. It was found that change in GPA was directly related to change in self-concept and inversely related to psychological disturbance.

Results of the comparison of subjects accepting versus subjects refusing proffered counseling indicate that there are no significant differences between groups on the academic performance measures. However, those subjects who accepted counseling show significantly greater academic persistence than those subjects who refused counseling.

THE EFFECTIVENESS OF A BEHAVIOR ORIENTED THERAPY AND AN INSIGHT ORIENTED THERAPY ON THE ACADEMIC ACHIEVEMENT OF "EDUCATIONALLY-DISADVANTAGED" STUDENTS

By

Paul Albert Aikin

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1969

To Trish

With Love

ACKNOWLEDGMENTS

I would like to express my sincere appreciation to Dr. Dozier Thornton, my mentor, for his advice and guidance during the planning and execution of this dissertation, and for his personal support and encouragement freely given during the long months of work. I would also like to thank Dr. Gwendolyn Norrell, Director of the Detroit Project and member of my committee, for her active support and guidance given on this study. Special thanks are due Dr. Bill Kell and Dr. Mary Leichty, other members of my committee, and Dr. Norman Abeles, my guidance committee chairman, for their genuine encouragement and assistance. I would like to thank Mr. Gerald Gilmore for his statistical and computer consultation. Finally, I would like to express a deep debt of gratitude to Trish, the woman I live with, for her unbelievable patience and love, and for her moral and technical support.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The Problem

Higher education has recently begun to respond with more than a token acknowledgment of the problems involved in the education of low income, minority group students. Educators are beginning to reject over simplified, archaic theories and rationalizations which attribute the disproportionately small number of poor and minority group students in institutions of higher education to lack of motivation and laziness. Instead, the system which created the situation in which we now find ourselves is being examined. As stated by President Hitch of the University of California (1968),

> We have to be steady enough to face the fact that the trouble of our time is rooted deeply in past inequalities and injuries and we have to be wise enough to work for the elimination of the angry frustration of many, the indifference of many more, and the fears that are corroding the institutions of our democracy. . . . The university's ability to sustain its efforts in assuming its proper social responsibility depends on our students, our facilty, and our staff. . . . Apathy and lack of vision have barred our progress long enough. . . . We need to create, as we go, a University that is as large in spirit as these times demand.

The problem facing universities in the education of low income, minority students is twofold: (1) a disproportionately low number of these students gain entry into the universities, and (2) a disproportionately large number of them drop out of the university. Although statistics concerning the college dropout problem are less than precise, it is estimated that approximately 50 to 60 per cent of all students who enter four-year college degree programs fail to complete them (Proceedings, 1964; Carlson and Wegner, 1965). The situation for low income, minority group students, however, is even more disturbing. Available statistics estimate that approximately 70 to 90 per cent of minority group students enrolled in institutions of higher education drop out before graduation (Harleston, 1965; Weber, 1968; University Bulletin, 1968).

It is quite clear that the higher education of low income, minority group students is a problem. That it is also complex and little understood is a truism. The problem is not simply one of middle class under-achievement. It involves a vastly complex array of socio-cultural, economic and educational factors. Minority group students suffer from educational deficiencies, motivational difficulties, financial problems, cultural shocks and attitudinal and value system discrepancies often not encountered by the typical middle class, white student.

The statistics confirm that these problems often become too great for the minority group students. To counter the special problems which confront the low income, minority group student, universities have begun to respond with special programs involving recruitment programs, special selection procedures, financial assistance, special education classes, tutoring and counseling programs. Early pilot projects have been both promising and disappointing. They have also shown the need for innovation in all phases of the special programs.

This study focuses on the counseling aspect of the larger problem of increasing the number of college graduates among low income, minority group students. It seems reasonable to assume that counseling at the college level may not be a "cure all" for the problem. Prevention of the problems which interfere with college level achievement at an earlier stage may be more fruitful. On the other hand, counseling may have some important contributions to make to the total educational process. Counseling may contribute to the development of increased study skills, study habits and commitment to achieving a college degree, and to bringing about changes in those aspects of the students' self-concept that interfere with academic success.

A Review of Theory and Research

Approaches to counseling with low income, minority group college students is presently a matter of conjecture. Research directly devoted to this problem is almost non-existent. The purpose of this chapter is to discuss some of the approaches available to the college counselor and to present evidence of need for new, innovative approaches. It appears that some of the techniques recently developed in the behavior modification area may prove to be effective with this population.

There presently exists a large number of schools of counseling and psychotherapy, all of which make various claims of success and general relevance. That they are, in fact, very different from each other seems to be a matter of conjecture. In fact, at least for insight oriented therapy, studies exist (Fiedler, 1950) which suggest that experienced therapists who express or hold to different theoretical schools function more like each other than like less experienced therapists within their respective schools. One theorist (London, 1964) has hypothesized that the greater part of so called different schools of psychotherapy may be grouped into two broad categories: insight therapies and action therapies. Insight therapy includes the psychoanalytic school á la Freud, the neo-Freudian schools of Adler, Jung, Horney and Sullivan, the nondirective or client-centered school of Carl Rogers and the existential school. Action therapy

includes two schools based on the classical conditioning of Pavlov and the operant conditioning of Skinner. Among some of the more prominent theorists, researchers and practitioners associated with the action therapy schools are Wolpe (1958), Eysenck (1960), Stampfl (1967), Bandura (1963), and Krasner (1965). A closer look at the similarities within and differences between these two broad categories is relevant to the present study.

It may seem a bit pretentious to lump psychoanalytic, neo-analytic, Rogerian and existential schools under the one label, "insight therapy." Not so according to London (1964). London argues that the most parsimonious approach with which to begin an exploration is with an examination of techniques, i.e., to look at what psychotherapists do or say they do. Since techniques are relatively concrete things, they are not only simpler to describe accurately than theories or philosophies but also more relevant indices of what actually goes on in therapy. "However interesting, plausible, and appealing a theory may be, it is techniques, not theories, that are actually used on people" (London, p. 33).

Considering technique, London points out two "gross commonalities" among all the insight therapies which he feels minimizes both their many differences and all their other likenesses.

1. The single allowable instrument of the therapy is talk, and the therapeutic sessions are deliberately conducted in such a way that,

> from start to finish, the patient, client, analysand, or counselee does most of the talking and most of the deciding of what will be talked about.
>
> 2. The therapist operates with a conservative bias against communicating to the patient important or detailed information about his own life, that is to say, the therapist tends to hide his personal life from the patient (p. 45).

There are also theoretical similarities among the insight therapies. The most important similarity is that insight therapists are less concerned with symptoms and more concerned with the underlying cause and motives. Symptoms are seen as the product of the underlying cause and as attempts to satisfy some need. Thus, therapy focuses on helping the patient or client develop insight into his underlying motives and become aware of and know himself.

In contrast to insight therapies, the most important common technical thread running through action therapies is a relative indifference to the origin of the symptoms they treat, and concomitant concern with specifying the goals of their treatment. Common general techniques of action therapies include:

1. The therapist tends to actively impose treatment procedures rather than passively await the introspections of the patient;
2. He tends to plan the details and goals of treatment very specifically, with only secondary acknowledgment of, or concern with the problems history;

3. He assumes serious responsibility for the kinds of changes resulting from his machinations (London, p. 80).

After summarizing the similarities within the respective polemic positions of the insight and action therapies, London also outlines differences between these two positions. Again, focusing on technique, London points to the handling of symptoms as the major basic difference between insight and action therapies. The insight therapist is most apt to bypass the immediate surface problem and try to attack the problem that lies beneath the symptom. The action therapist is most apt to focus on the sumptom itself and seek means of eliminating it, believing that removing the sumptom may also result in internal changes. Other differences between these polemic positions include a relative lack of interest on the part of action therapists in insight and in inferred motives and also a strong orientation toward observing and manipulating behaviors.

In summary, and in order to put into perspective the view of London, it should be pointed out that the real world of psychotherapy is not as simple or polemic as described above. The differences outlined by London are oversimplifications and obviously not so clear cut. Few, if any insight therapists would sit by and ignore self-destructive symptoms of clients while searching for insights and underlying causes. Nor would most action

therapists completely ignore the cognitive insights and discoveries of their clients. "Even the most extreme practitioners are gradually transformed from militant fanatic to casual eclectics, borrowing one or another technique or operation that seems appropriate to the person and the occasion" (London, p. 39).

That there are some basic differences between action oriented and insight oriented therapies is attested to by other theorists. For example, Phillips and Wiener (1966) discuss theoretical differences between Rogerian and learning theories in terms of Woodworth's S-O-R formula, where S refers to the stimulus, O refers to the organism, and R refers to the response. If we were to translate Rogerian therapy into this formula, it would emphasize the O; e.g., s-O-r. The focus in Rogerian therapy is on the organism, i.e., on cognitive states, central processes, feeling states, or phenomenological events. The emphasis is on process. Behavior change (R) receives little attention as compared with internal changes. In contrast, learning theory approaches based on the operant conditioning theory of Skinner emphasize the R in the formula: s-o-R. Carried to an extreme, the operant learning approach is not concerned with the organism (the black box) but is response centered. The focus is on the response capacities of the organism as a primary instrument of change.

Yet another way of conceptualizing differences between insight and action therapies is presented by

Ullmann and Krasner (1965). They suggest that a close examination of traditional, expressive, insight therapy will reveal that a number of learning theory concepts such as reconditioning, modeling and extinction are being used. However, these authors point out two major ways in which behavior therapies differ from insight therapies:

> 1. The a priori rather than post hoc usage of learning concepts, and
>
> 2. the explicit systematic application of learning concepts to achieve a particular goal selected at the start of treatment (p. 37).

The distinctions presented by Ullmann and Krasner are the most operational definitions of the differences between traditional, insight or expressive therapy and behavior modification or action therapy located in the literature. They will be the primary distinctions used in this study.

In addition to an operational distinction between the major therapeutic approaches, there also is a problem of semantics. A number of equivalent labels have been introduced by the various theorists to refer to the two broad, polemic therapeutic positions under consideration. We would do well at this point to stop and summarize them. In addition to insight therapy, other labels essentially referring to insight approaches include "expressive," "traditional," and "verbal." Hereafter, these labels will be used interchangeably to refer to

the insight oriented therapies as defined above by London. The essentially equivalent labels applied to action oriented therapies include "learning," "behavior," "behavior modification," and "response centered." Hereafter, these labels will also be used interchangeably to refer to action oriented therapies as defined above by London.

The Relative Effectiveness of Insight Versus Behavior Therapy

It is not uncommon to hear another difference between behavior therapy and insight or expressive therapy expounded upon by behavior therapists; that is, that behavior therapy is more effective than traditional, expressive therapy. The most frequently cited evidence used to make this claim is the data presented by Wolpe (1961). In Wolpe's study, 90 per cent of his patients were reported to be "apparently cured or much improved." This success rate is quite an exciting statistic. However, a closer examination of the sample used by Wolpe reveals that certain biases were included.

The sample upon which the report of a 90 per cent success rate was based reveals that it was drawn from a list of 295 patients from which a number of unsuccessfully treated cases had been removed. When these cases are included in the sample, Wolpe's "apparently cured or much improved" category accounts for only 65 per cent of the total cases; a percentage which is about equivalent to

those found in the majority of other studies of success rates from all schools of psychotherapy and comparable to "no treatment" improvement rates (Truax and Carkhuff, 1967).

A recent thorough review of outcome studies of both traditional, expressive therapy and behavior therapy by Truax and Carkhuff (1967) helps put into perspective the issue of their relative effectiveness. After reviewing psychotherapy outcome studies as a whole, Truax and Carkhuff concluded the "average" counseling and psychotherapy as now practiced is ineffective. On the whole improvement rates in psychotherapy appear to be about equivalent to the two-thirds improvement rate actually characteristic of an untreated population.

> Thus the weight of evidence, involving large numbers of clients and therapists, suggests that the average effects of therapeutic intervention [with the average therapist or counselor] are approximately equivalent to the random effects of normal living without treatment (Truax and Carkhuff, 1967, p. 149).

Contrary to some claims, the overall effects of behavior therapy do not appear to be significantly different from those of traditional, insight therapy. Improvement rates in behavior therapies suggest that "in its present state of development it is, on the average, equivalent in effectiveness to other commonly used therapeutic approaches" (Truax and Carkhuff, 1967, p. 149).

So where does this leave us in our search for an appropriate model for counseling with specially admitted,

low ability, low income, inner-city, minority college students? Since research suggests that average therapeutic intervention with either an insight oriented or an action oriented therapeutic approach is about equivalent to the random effects of normal living without treatment, should we simply throw in the towel and give up? I think not. Research has also indicated that there is a solid basis for assuming that different therapeutic approaches may be more effective than others with certain unique client characteristics and specific client problems. This was the conclusion of Truax and Carkhuff (1967).

> On the other hand, it may be that behavior therapy or conditioning therapy is more effective or more economical with certain kinds of patients. . . . Certain research studies also suggest that [behavior therapy] has contributed unique therapeutic procedures that indeed produce positive client change (p. 149).

Differential Effectiveness of Insight and Behavior Therapy

Of particular concern to the present study, is the evidence of differential effectiveness between insight oriented and behavior oriented psychotherapy with under controlled, poorly disciplined, resistive, less verbal, less cognitive and low socio-economic status clients. Evidence is beginning to accumulate which suggests that traditional, expressive, insight oriented psychotherapy has been relatively ineffective with low income, resistive

and undercontrolled clients. As stated by Goldstein, Heller, and Sechrest (1966),

> . . . even with maximal efficiency, verbal insight-oriented psychotherapy cannot be the treatment of choice for many individuals because they either lack the ability to perform the patient's task as presently conceived in most contemporary psychotherapies or are of such rigid personality structure that behavior change for them is not possible as long as the treatment approach requires confessional-like explorations that emphasize faults and weaknesses (p. 146).

Furthermore, a recent survey by Schofield (1964) of randomly selected practicing psychiatrists, psychiatric social workers and clinical psychologists indicates that there are clearly identifiable characteristics of poor risk, nonpreferred patients. The list of characteristics presented by Schofield may be grouped into three broad categories: inability to form a close interpersonal relationship, poor verbal ability and high defensiveness (Goldstein et al., 1966). The antithesis of these characteristics are the basis of a favorable prognosis in traditional, insight oriented therapy.

Also, the effectiveness of unconditional permissiveness, characteristic of insight oriented therapy, has recently encountered criticism in work with undercontrolled clients. Bandura and Walters (1963) have suggested that,

> Patients who lack effective self-control systems are not likely to benefit from unconditional permissiveness inherent in most therapeutic relationships, which may instead lead to the inadvertent strengthening of deviant behavior (Goldstein et al., 1966, p. 158).

Thus, there are reasons to suspect the effectiveness of insight oriented therapy with undercontrolled, resistive, less verbally able and low income clients. However, are there reasons to believe that behavior therapy should be any more successful? It is precisely to this point that a number of behavior therapists and theorists have begun to devote considerable attention. In particular, behavior therapists have attacked the problems of effecting change in the patient with poor verbal and interpersonal skills, the highly resistive patient, and the antisocial and undercontrolled patient.

First, behavior therapies appear to offer the opportunity for the development of procedures which extend therapeutic benefits to clients with poor verbal and interpersonal skills. Introspective ability and ability to form a close interpersonal relationship have been essential to the effectiveness of insight oriented therapy. However, for clients encountering difficulty with close interpersonal relationships, it may be important that the psychotherapist refrain from attempting to force a close interpersonal relationship. In this regard, several researchers have experimented with techniques which do not require a close personal relationship. For example, Redl and Wineman (1957), Schwitzgebel and Schwitzgebel (1961), Slack (1960), Stollak and Guerney (1964) and Sechrest and Strowig (1962) have used such

devices as programed instruction, teaching machines and tape recorders as a means of establishing therapeutic contact with clients with poor interpersonal skills. Although much of the research just referred to is still in the initial stages of development and outcome data are generally lacking, Schwitzgebel and Kolb (1964), in a three year followup study, reported a significant reduction in the frequency and severity of crimes of treatment subjects, part of whose treatment involved talking into a tape recorder. Furthermore, positive relationships with the experimenter developed in both the Schwitzgebel and Kolb and Stollack and Guerney studies even though the relationship was not forced, nor was the ability to form a relationship a precondition for treatment.

Behavior therapists have also applied behavior modification techniques to patients with extreme introspective problems such as schizophrenia and autisim, with promising results (Issacs, Thomas, and Goldiamond, 1960; King, Armitage, and Tilton, 1960; Frester and DeMyer, 1962; Ullmann and Krasner, 1965). Such behaviors as the reinstatement of speaking behavior, increased verbalization, cooperative problem solving and interest in occupational therapy were shaped by operant reinforcements. Again, in these studies, the focus of the therapeutic approach to behavior change was chosen according

to the behaviors already available to the patient rather than attempting to force a verbal, close interpersonal relationship. Thus, evidence is accumulating which suggests that clients with poor verbal and interpersonal skills may be effectively reached by behavior therapy techniques. It must be acknowledged though, that the evidence is more suggestive of potential effectiveness than of clearly delineated and reliable procedures at this point.

Second, the problems of the highly resistive client have been attacked by behavior therapists. After a thorough review of the literature, Goldstein, Heller and Sechrest (1966) present a rationale and supporting research for the therapeutic encounter of the resistive client. According to these authors, a structured approach, characteristic of behavior therapy, is the most effective means of therapeutically impacting the resistive client. They propose that resistance is increased as the threat value of therapeutic communication increases. Therefore, a reduction in client resistance is facilitated by reducing the threat value of the therapeutic relationship for very resistant clients. They further present evidence that indicates that the threat value of therapeutic communications are reduced by reducing the amoung of ambiguity in the relationship.

> We are proposing that for those who are initially resistant to influence, therapeutic ambiguity will make the process of behavior change more difficult and may represent at least one factor which is responsible for traditional psychotherapy not having achieved even wider applicability . . . reducing ambiguity in therapy will decrease threat and increase the likelihood that the therapist's remarks will be understood and accepted. This point is particularly relevant for patients who are not initially attracted to therapy and are hence more resistant to therapeutic influence. However, even in the case of a compliant patient, the therapist may find that when anxiety starts to increase beyond what he would consider to be optimal bounds increased clarity and structure could prove effective weapons in lowering that anxiety (p. 177).

An additional therapeutic approach, suggested by Goldstein, Heller and Sechrest to reduce the debilitating influence of threat on resistive clients is the use of delayed compliance.

> If the threat value of a therapeutic message is too great, it may become so easily distorted or denied by the patient that it is never even considered by him. Such action by a patient may occur frequently when an interpretation by the therapist seems to imply the necessity of immediate action. Patients for whom any change is threatening would resist such messages. Rejection of the therapist's message would also occur fairly frequently by those patients who interpret all relationships, including therapy, as a contest for supremacy. These individuals, who need to maintain an image of complete independence and self-reliance are not often seen in a therapist's office, and if forced to present themselves for treatment are not likely to experience success. This is at least partly because the dependent, help seeking, acquiescent patient's role is so difficult for them to assume. It is for these two groups of resistant patients, those for whom any change is threatening, that we suggest the adoption of therapeutic procedures that permit and even actively encourage delayed compliance (p. 177).

Finally, another reason offered for the inappropriateness of insight or reflective approaches with undercontrolled and resistive clients is:

> . . . for in these cases there exists the very real danger that unconditional permissiveness could unleash a flood of uncontrolled aggression. . . . Thus while complete permissiveness might be of value in the treatment of overinhibited, frustrated patients, this procedure would not be appropriate for those whose life-style has made aggression a prepotent response (Goldstein, Heller, and Schrest, 1966, p. 195).

One behavior control approach which has focused on the development of self-control through imitation learning is that of Bandura and his associates. Bandura and Walters (1963) have suggested that "exposure to models who suffer, are punished, or exhibit fear in the course of performing a deviant act may be an effective means of producing conditioned fear reactions, which may be lacking in underinhibited children" (p. 243). Much of the research on modeling behavior has been carried out in the laboratory. Several of these studies (Bandura, 1962; Bandura, Ross and Ross, 1963; and Walters, Leat, and Mezei, 1963) provide support for the belief that negatively reinforced models may, in some cases, be successfully employed for transmitting behavioral control.

To further delineate the role of modeling in self-monitoring reinforcement systems, Bandura, Drusec and Menlove (1967) studied the effect of three social conditions which might lead children to adopt stringent

self-reward patterns of behavior exhibited by superior models. They found that combined influence of low nurturence, observing the model receive positive social reinforcement for his strong self-reward behavior, and the absence of competing peer standards produced the most stringent pattern of self-reward on the part of subjects. These findings provide additional experimental support for the conclusion that inhibitions and strong self-controlling responses may be acquired through observational learning without the mediation of direct positive or negative reinforcement. Furthermore, these results suggested that although self-control behavior may be acquired through exposure to fear models, provision of a positive-reward model appears to be a preferable form of treatment.

The actual incidence of the clinical treatment of clients by modeling methods reported in the literature is, as yet, quite scarce. However, one study by Staples, Wilson, and Walters, reported in Bandura and Walters (1963), used regressed schizophrenics whose verbal behavior was minimal. Results of the study indicated that patients exposed to a talkative model showed a marked increase in verbal responsiveness when compared with control patients who had not been exposed to the model. Preliminary results also suggested that exposure to a talkative model was more effective in increasing verbal productivity

than was the dispensing of cigarettes as rewards for speaking.

Thus, there is evidence which suggests that modeling procedures hold promise for work with resistive and undercontrolled clients, although additional attempts to test the conclusions drawn from laboratory research in clinical situations is needed.

In addition to modeling procedures, operant conditioning or "behavior shaping" techniques have been shown to be effective with undercontrolled clients in a high delinquency neighborhood and in problem classrooms. For example, Slack and Schwitzgebel (Schwitzgebel, 1960; Slack, 1960; Slack and Schwitzgebel, 1960) reported the effects of positive reinforcement with "hard-core" delinquents. Delinquent adolescents or children were paid to serve as subjects in a "laboratory" set up in a high delinquency area. Through the method of immediate monetary reinforcement, the boy's attendance, cooperation and participation in a variety of legitimate skill activities was attained. According to the authors the boys' gang and delinquency activities decreased considerably and their "no-work" ethic began to change.

Studies which have demonstrated the effectiveness of operant conditioning in establishing and maintaining appropriate classroom behavior with undercontrolled subjects include O'Leary and Becker (1966), Meichenbaum, Bowers, and Ross (1968), Patterson et al. (1965) and

Homme et al. (1963). These studies cover the range of subject populations from normal children through control of extreme behavior with adolescent delinquents.

Summary

The evidence indicates that behavior therapists have made inroads into developing procedures for the effective treatment of patients with poor verbal and interpersonal skills, high levels of resistance, and undercontrolled behavior; characteristics which traditional, insight oriented therapy has considered to be indicative of poor risk cases. Although much of the reported research was concerned with psychotic or delinquent individuals, there is reason to believe that these techniques may also prove useful with less disturbed but resistive and undercontrolled clients.

The above discussion has been concerned with the broader theoretical issue of the applicability of traditional insight therapies versus behavior modification approaches to counseling. Given the evidence that other behavior modification approaches seem to offer a great deal of potential and promise we now turn to a further exploration of the potential of behavior modification approaches to the more specific problem of academic performance with resistive clients. An illustrative therapeutic approach with additional literature pertinent to the type of population and problem confronted in this study is presented.

An Illustrative Approach

A recent therapeutic approach by Phillips and Wiener (1966), devoted to the development of a theory of short-term psychotherapy and structured behavior change, has particular relevance to the problems of treating resistive, undercontrolled clients. These authors developed and presented a set of principles or rules for general guidance in the clinical situation based on learning theory with the primary focus on Skinnerian operant conditioning procedures.

The terms "short-term" and "structure" need further elaboration. Therefore, the following definitions from Phillips and Wiener, are offered:

> Short-term is defined as: Primarily it should deal with current problems in living. It has little concern with an exploration of the past or inner life of the client or with a broad philosophical search for hidden meaning (p. 11).

> Structure is defined as: . . . observing the relationship between given antecedent and resultant elements; interferring in pathology to realign variables so as to produce a different outcome or effect; using environmental manipulations (encompassing persons outside of therapy) to bring about desired effects; introducing and assuring as much certainty and dependability and control in heretofore uncontrolled and uncertain situations as possible; and, above all, making these changes in ways consonant with the integrity and values of the individual (or social unit) (p. 25).

According to these authors, there are a number of implications of focusing on response (R) centered variables:

1. There would be less interest in the presumptive origins of a patients difficulties . . . little effort to find the original stimuli for the problem.

2. The client would be taught to develop new responses to troublesome situations by manipulating his behavior, his environment or both . . . the therapist and the patient would then seek agreement upon an objective and upon steps to attain it.

3. Other people would be involved where needed to to aid the patient--wherever they were able to act as change agents . . .

4. There would be less need to depend on verbal-talking-insight therapy . . . if more effective means were available.

5. Any problem-solving responses would be identified and encouraged. The means to this encouragement could be as pervasive and inventive as the client and therapist could contrive.

6. Undesired behavior would be prevented from occurring whenever possible, rather than being allowed to occur or studied in the hope that the analysis of it would "cure" or automatically produce behavior change.

7. The general task becomes that of finding and instituting new, desired behavior in place of the problem behavior. Since the new behavior is to be set up for reinforcement, the situation must be structured accordingly . . . the therapist has many procedures available, including simplifying the choices available, reducing external stimuli, and putting the individual on various schedules to ward off undesired behavior.

8. The solution to most problems would be approached step by step . . . these gradual steps would be schedules, with more specific ordering of behavior, setting of limits, blocking of self defeating behavior, and similar structuring.

9. Corrective behavior, whether it is only a simple act or a large response system, would be considered to occur only on a very specific basis. The behavior that directly opposes the problem-bearing tendency would be identified

> and promoted through such methods as desensitization, operant conditioning and reconditioning, and aversive stimulation (p. 67).

In addition to the above implications, response centered approaches place great emphasis on planning behavior change. As such, the therapist becomes the "architect of change." Put another way, planned behavior change involves a three pronged attack including:

1. A change plan: a statement of what behavior has to change, how the change may be brought about, by whom the change can be effected and other tactical and strategic considerations.
2. A change object: this is the client, family, or group of clients.
3. A change agent: this is the instrument through which the change is accomplished, that is, the person, condition, social arrangement or even laboratory condition. It may be the client himself, the parent, teacher, spouse, therapist, etc.

Thus we see that an organized body of principles, theory, and techniques are developing in which behavior modification procedures are being applied to unstructured, undercontrolled resistive behavior. Behavioral approaches appear to hold great potential for supplementing the more traditional insight and relationship approaches to psychotherapy. Furthermore, it offers potential for providing distinctively new approaches for working with and

effectively helping clients who were considered poor risks or non-changeable by the more conventional approaches to psychotherapy.

We turn now to a review of the behavioral literature directly concerned with structured, behavior modification approaches to counseling with educational and academic achievement problems.

A Review of Structured, Behavior Modification Studies and Scholastic Achievement Problems

The question to which we presently address ourselves is concerned with whether the existing literature provides any support for assuming that structured and behavior modification techniques have any effect on the academic behavior of low income, low ability, minority group college students. In as much as was possible, we have attempted to restrict our review to academic problems with low income, minority group students. However, since the literature is quite scanty, we have also drawn upon the findings of behavior modification studies concerned with academic achievement of average college students and middle adolescent low income, minority group students. It appears that much applied research is presently in progress in this area but the majority of these reports have not as yet reached the literature.

The studies reviewed below cover the range from the complete restructuring of the learning and living

environment to very specialized studies aimed at a specific aspect of academic behavior. This review starts with the more specific studies and proceeds to the more generalized studies. The first group of studies to be reviewed focus on the specific academic fears of test and speech anxiety, where the results of systematic desensitization have been very encouraging.

Paul (1966, 1967) conducted one of the most comprehensive and well-controlled comparative studies of desensitization to date. He attempted to treat the problem of speech anxiety in college freshmen by classical insight methods (neo-Freudian and Rogerian), systematic desensitization, simple attention (placebo), and no contact control. Measures were secured pre-, post-, six weeks after treatment, and two years after treatment on a number of self-report questionnaires, physiological measures (pulse rate and palmar sweat), and behavioral ratings of each subject while giving a speech. The results indicated that on all three classes of measures (self-report, physiological, and behavior ratings), the group treated by systematic desensitization showed significantly greater reduction of speech anxiety than untreated controls. Desensitization was also consistently superior to either attention-placebo or insight-oriented treatments. Although the latter two treatments were significantly superior to the no-treatment controls, they did not differ from each other. Essentially the same results were again obtained

on the analysis of the six-week and two-year followup tests. The effect of treatment on the academic performance of the subjects was not reported.

The following studies are all concerned with the treatment of test anxiety by means of systematic desensitization. Paul (1964) also conducted a pilot study on test anxious subjects enrolled in an introductory psychology course at the University of Illinois. Subjects were assigned to a desensitization treatment (N=5) group and to a no-treatment control (N=6) group. A post-treatment assessment based upon performance in a second course examination revealed that the treated group significantly improved their examination scores from first (pre-) to second (post-) exams over the untreated controls. However, no direct post-treatment assessment of anxiety was made.

Johnson (1966) reports a study treating test anxiety in subjects selected from an undergraduate psychology course at Northwestern University. Twenty-three subjects were randomly assigned to systematic desensitization and relaxation training groups. A no-contact control group (N=10) was also included in the study. Results of the study indicated that the desensitization group exhibited a significantly greater improvement in performance on a standardized multiple-choice examination than either the relaxation or the no-contact control

groups. However, no significant differences were found on the test-anxiety scale.

Kalahn, Strenger, and Cherry (1966) report results of a group counseling and behavior therapy approach with test-anxious and under-achieving college students. Fourteen highly test-anxious college students were given a combined program of group counseling and systematic desensitization. Systematic desensitization was used to bring the subjects' anxiety level to within manageable limits and counseling was used to help subjects develop necessary skills for improved academic performance and change their attitude toward test taking. Compared with control subjects, the treatment subjects showed significant increases in GPA and significant decreases in test anxiety. While all the subjects reported that the relaxation and systematic desensitization proper were helpful, all considered the group counseling (advice and discussion) to have played the more important role. Subjects reported that relaxation and desensitization were the most helpful in reducing physiological symptoms and tension while group counseling was important in changing attitudes toward teaching, school teachers, and most importantly, taking tests.

Emery and Krumboltz (1967) report a study of systematic desensitization with test anxious freshmen students at Stanford University. Subjects were randomly

assigned to one of three conditions: (1) desensitization with a standardized heirarchy, (2) desensitization with an individualized hierarchy, and (3) no treatment. Using as criteria self-ratings of anxiety during examinations, scores on a test anxiety scale and final examination grades, the authors found that the two desensitization groups showed a significant decrease in test anxiety compared with the no-contact control group. However, there were no significant differences between the treatment groups or the control groups. Furthermore, there were no significant differences between either the standardized or individualized treatment groups on any of the dependent variables.

Garlington and Cotler (1968) report results of a desensitization study conducted with test anxious undergraduate subjects at Washington State University. Results of this investigation parallel those of Emery and Krumboltz. Those subjects receiving the desensitization treatment reported a significant decrease in test anxiety over a no-contact control group. However, no significant differences between groups were found in performance on course examinations or final grades.

The most recent systematic desensitization investigation of test anxiety behavior was reported by Suinn (1968). Again test anxious undergraduate students served as treatment and control subjects. Results indicated that decreases in anxiety as measured by several anxiety

scales were significantly greater for the treated than for the untreated group. No attempt to measure academic performance was reported.

The above studies concerned with academic fears paint a varied picture. It seems quite clear from these investigations that systematic desensitization procedures are effective in reducing speech and test anxiety. Only one study (Johnson, 1966) found contrary evidence and Paul (in press) has criticized this latter study for not having obtained the post-treatment assessment of the test-anxiety scale prior to the criterion examination. On the other hand, the evidence for the generalization of reduced anxiety to academic performance is not conclusive. Two well controlled studies by Emery and Krumboltz (1967) and Garlington and Cotler (1968) indicated that academic performance was not significantly different for the treated subjects compared with untreated subjects. It is interesting to note that in the Kalahn, Strenger and Cherry (1966) investigation, in which the desensitization procedures were combined with a broad group counseling approach, a significant increase in GPA was reported. The group counseling included additional structure such as a focus on study skills, study habits and test taking skills. It may be that a truly effective approach to changing academic performance with academically anxious students requires a broader therapeutic approach than simply reducing anxiety. The anxiety may be the signal that

other academic deficits exist and a combined desensitization and study-skills, study-habits approach may be needed.

Meichenbaum, Bowers and Ross (1968) investigated positive reinforcement methods of controlling institutionalized adolescent girl's classroom behavior. A highly reliable time sampling assessment technique, which dichotomized classroom behavior into appropriate and inappropriate categories, was developed to assess the classroom behavior of ten institutionalized female adolescent offenders (treatment group) and twelve non-institutionalized girls from a nearby community school (control group). Following a two-week baseline period, an operant treatment procedure which included fixed and variable interval schedules was implemented. Money was used to reinforce appropriate classroom behavior. Results of the investigation indicated that prior to treatment, the institutionalized girls manifested a significantly greater amount of intense inappropriate classroom behavior than their non-institutionalized peers. Following three weeks of treatment, the institutionalized girls' classroom behavior was similar to their non-institutionalized peers. The effects of the fixed and variable interval schedules were compounded in the study and were difficult to assess. However, this investigation demonstrated that high frequency inappropriate classroom behavior of female

institutionalized adolescent offenders can be readily modified by means of operant conditioning procedures.

Another study which also met with success when monetary rewards were used to shape desired behavior was a pilot study by Allen (1966). Allen investigated behavior modification methods for improving study habits, grade-point average, and attitudes toward school. Subjects for this investigation were "educationally-disadvantaged" college students (N=3) and high school students (N=7) of Negro and Mexican-American ethnic minorities. The college students were offered a "job" which required that they go to college. The job paid a dollar an hour to attend class and included a bonus at the end of each month for all courses in which the student was maintaining at least a "C" average. Students were also required to spend an hour each week with a reading tutor, an hour each week with a writing tutor, and an hour each week with a counselor. Students were also required to tell each of their teachers about their participation in the program. In addition to receiving monetary reinforcement for attending classes and grades, verbal reinforcement by the counselor was also given for interacting with teachers, for associating with other college students, and for studying. All three college students did passing work in junior college in spite of the fact that they had received average or below average grades during high school, had not applied for admission

to college, and were considered by high school and college administrators to be "poor risks" for college. Furthermore, one student asked that the monetary reward be withdrawn after one and a half semesters of college since he no longer needed money as an incentive to study.

The reinforcement schedule was modified for the high school students since classroom attendance is required. They were rewarded only for good grades. Furthermore, students were given an opportunity to select what they valued most as a reward, e.g., money, books, scientific equipment, and attendance at sports activities and so forth. An information form was distributed to each students' teachers each month and each teacher recorded the grade which the student had earned during the month, the student's course grade at that time, and, in addition, the teacher indicated the areas in which the student needed improvement. Phone contact was maintained with the high school students approximately twice a month to ask about study and homework. Encouragement and verbal reinforcement was given for good study habits. The investigator reports that three of the seven high school students in the study demonstrated dramatic changes in study habits and course work. All of the students received better grades than they had received the previous year.

Since there were no controls built into this pilot study, the improvement in GPA cannot be directly attributed to the reinforcement contingencies. It is possible that the change might simply have been a product of attention or teacher's unwittingly supporting the students. On the other hand, the results of Allen's study clearly justify more extensive investigation.

Several studies, although not based on behavior therapy techniques, have focused on the structure variable (Chestnut, 1965; Gilbreath, 1967). In these studies the effects of a focused, structured approach on underlying personality dimensions that theoretically lead to low academic performance was compared with equivalent groups which were non-directive or unstructured in nature. In the structured approach the counselor initiated and directed the group discussion, whereas in the unstructured approach the material for discussion was generated by the group members themselves.

Results of the Chestnut study (1965) indicated that those subjects in the groups in which the counselor structured the sessions had a significantly greater rate of change in GPA after counseling than the subjects in the relatively unstructured and control groups. However, three months following counseling, the counselor structured groups' rate of change was not significantly different from the non-counselor structured group

although both were significantly greater than the control group.

Although the replication of Chestnuts' study by Gilbreath (1967) did not produce significant changes in GPA for the two treatment approaches, he found significant differences when he took into consideration the personality variable of dependence. Male underachievers who have strong dependent needs were more likely to improve in GPA if they were participants in groups in which the counselor structured the focus of group discussion and less likely to improve in GPA if they participated in a relatively unstructured, non-directive method of group counseling. It appears that the importance of personality variables should not be overlooked when considering investigations involving structuring variables.

Batrawi (1964) compared the relative effectiveness of a structured and an unstructured, Rogerian type of psychotherapy with high school students applying for psychological help. The unstructured group received a relatively permissive, reflective type of therapy. The treatment of the structured group derived from a behaviorally oriented theory. The conduct of the behavior therapy hour stressed plans and daily schedules related to personal, social, and study problems. In addition, each student kept a log of daily experiences, in order to define and describe daily problems and to provide examples

of progress. Each group had a total of ten interviews. A battery of pre- and post-therapy achievement and personality tests were administered. Grades, scores on the Iowa Tests of Educational Development, and sub-Scales of Achievement, Order and Endurance on the Edwards Personal Preference Scale (EPPS) showed significant gains for the structured approach over the unstructured approach. The EPPS sub-scales dealing with affiliation and intraception showed significant changes in favor of the unstructured approach.

It is interesting to note the selectivity of the reported behavior changes. The structured approach achieved significant changes in the direction of more orderly and achievement-centered behavior, and the more unstructured and interpersonal approach achieved significant changes in the direction of greater introspection and affiliation. These findings seem to suggest that the therapist may structure the counseling for the specific change needed by the client.

Cohen, Filipczak and Bis (1968) recently reported an investigation involving a bold, almost complete restructuring of the learning environment of a selected group of student-inmates at the National Training School for Boys. This study has special significance since it breaks away from the traditional mold of grading, yearly class promotion, diplomas, group instruction at the expense of the individual, and the assumption that study

is intrinsically rewarding. For many students traditional educational motivations and practices have not been effective means of facilitating learning. The name given this special project is CASE (contingencies applicable to special education). Not only did these researchers develop a new grouping of subject matter and schedules of reinforcement based on individual or group performance, but they used

> . . . certain areas of reinforcement normally operating in non-academic environments (along with amusement machines, etc.) as contingencies (events or situations that can initiate, maintain and increase or decrease behaviors) so as to increase the educational performances of student inmate subjects (p. 34).

Based on the hypothesis that educational inadequacies at least in part account for the development and maintenance of dropout and delinquent behavior, Cohen and his associates focused on increasing the academic abilities of student inmates as a means of preparing them to meet the educational requirements of our society. They describe the functioning of student inmamtes as lacking in two types of behavioral patterns:

1. "Lack of acquisitional and attitude patterns." Not having proper study habits and not keeping commitments is characteristic of their behavior. What is more, they lack behaviors required to attain necessary skills and information.

> Their behaviors in the academic area are considered as fleeting, as unmotivated and as lacking stick-to-it-iveness, although they may display a considerable amount of motivation and persistence in other non-academic areas of life (p. 34).

2. "Lack of specific background skills and information." Because learning is not valued and participated in, deficiencies in certain basic skills and content behavior develop. These deficiencies in background skills and information often make other learning and performance impossible.

Since intrinsic reinforcement of academic behavior is not characteristic of these subjects' approach to learning, a system of extrinsic reinforcements was developed to maintain students' educational behaviors. Extrinsic reinforcements were purchaseable by earning points for academic achievement. Each point was worth $.01, and could be used to buy material from a Sears and Roebuck catalog, or to buy entrance into a lounge where a jukebox and friends were. Points were earned by studying and passing tests on programmed or semi-programmed educational problems and other academic performances. The program was voluntary and individualized. Lounge rates, vacations, etc. were manipulated so as to obtain the greatest amount of study behavior possible. A battery of pre- and post-educational test data indicated that during the six months of the project average

grade level changes on both the Gates Reading Survey and the Test of General Ability consisted of almost one whole grade level. Changes in average grade levels on subtests of the Stanford Achievement tests were as follows: reading and arithmetic - one grade level, spelling - one and one-half grade level, and language - one-half grade level. The staff also subjectively reported change of attitudinal behaviors with direct modeling after the staff. This study incorporated a number of learning theory principles to bring about changes in behavior, namely, the change goals and the means of achieving them were specified at the start of the program, a complex system of reinforcement contingencies was developed, subjects received immediate feedback on academic performance, an extrinsic reinforcer (points converted to money), which may lead to the development of intrinsic reinforcement was used, and successive approximations of the desired response was also used.

An expanded followup to this study is now in progress with only preliminary data available. However, early reports from this latter study also suggest that the behavioral focus on response variables holds a great deal of promise for increasing the academic performance of these subjects.

Thus the results of the studies reported above appear both suggestive and promising. It appears that

several cautious conclusions may be drawn from the small sample of studies reported.

1. Structured and behavior modification methods appear applicable to educational and academic achievement problems.
2. It appears that changes in GPA and educational achievement tests can be anticipated with structured or behavior modification approaches.
3. A focus on academic and educational variables appears to have some concurrent effects on some personality variables.

Summary and Rationale

The higher education of low income, minority group students is a problem involving a vastly complex array of socio-cultural, economic and educational factors. A disproportionately small percentage of low income, minority group students are admitted to the universities and once admitted, a disproportionately large number fail to graduate. The problems encountered by the low income, minority group college student of low measured ability have been articulated by several authorities. Weber (1968) attributes the overriding reasons for the difficulties encountered by these students in obtaining a college degree to the following four factors:

1. Basic language arts problems, especially reading retardation.

2. The curriculae of institutions of higher learning are perceived as irrelevant.

3. The students fail to experience requisite amounts of success experiences.

4. Financial difficulties are often insurmountable (p. 2).

Cohen, Filipczak, and Bis (1968) have pointed out two types of behavioral patterns which create special problems for "educationally-disadvantaged" youth.

1. Lack of acquisitional and attitudinal patterns. They do not have proper study habits and do not keep commitments. In addition, they lack behavior required to attain necessary skills and information. Their behaviors in the academic area are considered as fleeting, as unmotivated and as lacking stick-to-it-iveness, although they may display a considerable amount of motivation and persistence in other nonacademic areas of life.

2. Specific background skills and information. Owing to the absence of the behavioral patterns described in Section 1, these students have not acquired certain basic skills and content behaviors necessary for other learning, whether academic or vocational. They are, therefore, not only incapable of performing at required levels in many situations, but they also are unable to acquire information and skills in a normal manner. This is a well-known vicious cycle which is self-perpetuating (pp. 34-35).

As can be seen from the conclusions of Weber (1968) and Cohen, Filipczak, and Bis (1968), higher education is confronted with a difficult challenge. Society has created a demanding social problem. It behooves concerned behavioral scientists and educators to respond to the challenge.

As a result of this situation, a number of special projects have been developed which are aimed at increasing

the percentage of low income, minority group students admitted to the university and the success rates of those admitted. Such special projects typically involve provisions for financial aid, tutoring, special reading and verbal skills courses, educational system changes, and counseling. Michigan State University, the setting in which this study took place, has been involved since 1963 in the admission of students not meeting regular university entrance requirements. The impetus for these special programs came from the admissions office and from the beginning has involved the counseling center in the special counseling of these students.

The focus of this study is on the counseling aspect of these special education projects. It has been hoped that counseling would be able to contribute to the stability, adjustment and well-being of these students. More specifically, counseling has been given the task of improving study skills and study habits, increasing student commitment, and bringing about changes in those aspects of the self-concept which interfere with academic success. Given the problems encountered by the specially admitted students, the task is exceptionally demanding.

There are a number of approaches available to the college counselor in working with this particular student population. As noted above, however, a fairly reliable literature is beginning to develop which suggests that traditional insight, expressive therapy is

relatively ineffective with the population just described. To be even minimally effective, traditional insight, expressive therapy requires a close interpersonal relationship built on trust and clients who exhibit verbal facility, introspective ability, a minimum of defensiveness and resistance, and reasonably intact self-control systems. Yet, frequently the methods of traditional counseling are all that is available to the college counselor.

Recently a small number of counselors and psychotherapists have begun to experiment with structured and behavior modification methods in counseling. As was discussed above, these approaches would appear to hold promise with the subjects used in this study. There appear to be several advantages to using structured and behavior modification methods in counseling with low income, minority students of marginal academic ability. First, the structured, behavior modification approach focuses on behavior change. It uses conditioning principles and theoretically does not require a close interpersonal relationship built on trust, verbal and introspective facility, a minimum of resistance, and an intact self-control system. Second, by structuring the focus specifically on changing academic behaviors, the relationship theoretically is more concretely defined, less ambiguous and thus potentially less threatening. Third, the structured behavior modification approach

offers special methods for focusing on the development of self-regulation, control and structure and thus is potentially more effective with students lacking academic stick-to-it-iveness, self-regulation and intrinsic motivation. Finally, since the structured behavior modification approach is a systematic attempt to apply conditioning principles from the field of learning theory, it offers an opportunity for more accurate evaluation of the procedures and results.

CHAPTER II

PROBLEM AND HYPOTHESES

To date the most common mode of counseling available to the college counselor has been that of the traditional insight expressive approach. Research and theory, cited above, would lead us to believe that structured and behavior modification methods offer advantages over the traditional insight-expressive approach to counseling in the case of low income, minority group college students. But as yet, no attempt has been made to explore the relative effectiveness of these two counseling approaches with this student population. The purpose of this study is to explore the differential effects of the traditional, insight-expressive (TIE) and the structured-behavior modification (SBM) counseling approaches on the academic performance and self-concept of low income, minority group college students of low ability.

In accordance with the purpose of this study, the following hypotheses are tested.

I. The SBM and TIE treatment groups will exhibit a significantly greater mean increase in

academic performance, as measured by GPA, number of credits earned, and number of terms completed, than no-contact control groups matched on ability level.

II. The SBM treatment group will exhibit a significantly greater mean increase in academic performance, as measured by GPA, credits earned, and number of terms completed, than the TIE treatment group.

III. The acceptance of counseling, as measured by number of subjects who accept proffered counseling and mean number of sessions attended, will be significantly greater for the SBM treatment group than for the TIE treatment group.

IV. The SBM treatment group will exhibit a significantly higher mean increase in subscales of Personal Efficiency: planning and use of time and Study Skills and Practices, as measured by the College Inventory of Academic Adjustment (CIAA), than the TIE treatment group.

Exploratory Questions:

I. Are differences in SBM or TIE treatment procedures significantly related to change in self-concept and personal adjustment, as measured by the Tennessee Self-Concept Scale (TSCS)?

II. Are there any significant changes in self-concept and personal adjustment, as measured by the TSCS, correlated with change in GPA?

III. Are there any significant differences in the perception of the counseling relationship and process between Ss receiving the SBM and TIE treatment procedures?

IV. Are there any significant differences between the academic performance of those Ss accepting and those Ss refusing proffered counseling?

CHAPTER III

METHOD

Design

The design of this study includes two treatment groups and two matched no-contact control groups. In addition, subjects who refused treatment, although not considered an adequate control group, are included for the purpose of making comparisons between Ss who received counseling and those who declined counseling. One treatment group received structured, behavior modification (SBM) counseling and the second treatment group received traditional, insight-expressive (TIE) counseling. Grade point average, number of credits earned for fall, winter and spring terms, and number of terms completed, are criteria measures taken for the treatment and control groups. In addition, pre- and post-test measures on two personality tests, a post-treatment questionnaire, mean number of sessions attended, and proportion of Ss who accepted proffered counseling were taken for the two treatment groups.

Subjects

The present investigation is a portion of a larger experimental program at Michigan State University called

the Detroit Project. The Detroit Project was initiated by the admissions office in conjunction with the counseling center for the purpose of providing low income, not regularly admittable, ethnic minority group students an opportunity for a college education. High school administrations and counselors in the inner-city area of Detroit, Michigan, were asked to recommend students with the potential for achieving a college degree even though their high school grades and entrance test scores may not have qualified them for regular admittance. Financial need was also a basis for inclusion in the experimental project. Each student was interviewed by the admissions office and a total of sixty-six Negro students were admitted to the university in the fall of 1967. Five students received grades of all "F's" for the fall term and were withdrawn from the university at the end of the fall term. Two additional students withdrew voluntarily at the end of the fall term. The following are characteristics of the remaining fifty-nine students. The mean high school grade point average (based on a four point scale with A=4 points) was 2.49 with a standard deviation of .41. The mean raw score on the College Qualification Test (CQT) was 92.50 with a standard deviation of 26.30. This score falls at the eleventh percentile based on Michigan State University norms. The mean CQT Reading Subscale score for the group fell at the seventeenth percentile. Mean SAT Verbal, Mathematical, and Total raw scores were 411, 392,

and 803 respectively. Thirty-one of the fifty-nine students were required to take the remedial English course and eighteen of the fifty-nine students were required to take the remedial mathematics course. The average financial aid grant given students in this group was $1,240.00. The average age of Ss was eighteen years old.

A total of forty-one Ss were assigned to male counselors and eighteen Ss were assigned to female counselors. In order to reduce the confounding effects of counselor sex differences on the outcome variables, only the forty-one Ss assigned to the male counselors are included in this investigation.

Twenty Ss were assigned to counselors in the SBM treatment group and twenty-one Ss were assigned to the counselors in the TIE treatment groups. After attrition, sixteen Ss remained in the SBM treatment group and thirteen Ss remained in the TIE treatment group. The remaining SBM treatment group consisted of six males and ten females, and the TIE treatment group consisted of six males and seven females. The mean fall term grade point average (GPA) for the SBM group was 1.17 with a range of .70 to 2.33. The comparable fall term GPA and range for the TIE group was 1.31 ranging from .43 to 2.42, respectively. The mean College Qualification Test (CQT) raw score for the SBM group was 82 with a range of 51 to

146 and the comparable mean CQT and range for the TIE group is 98 and 60 to 137, respectively. The differences between the fall term GPA and CQT means for the two groups are not significant.

Two samples of regularly admitted, low ability students, matched with the treatment groups on the basis of ability level (CQT score) and sex were drawn from the general population of predominately white, middle class freshmen students to serve as no-contact control groups. The SBM matched control group consisted of five males and eleven females and the TIE matched control group consisted of five males and eight females. Due to the unusually low ability level scores of the specially admitted group of inner-city Ss, exact matches for several of the subjects in the SBM counseling treatment group could not be found in the general population. In these cases, the next closest CQT score that could be found for regularly admitted low ability students was used as the matched control S.

The twelve subjects who refused the counseling offered them are included in the study as a "refused treatment" comparison group. This group includes seven males and five females. The mean CQT total score for this group was 98 with a range of 49 to 144. The mean fall term GPA was 1.37 and ranged from .38 to 2.20. The differences between the fall term GPA and CQT scores for

this group is not significantly different from either treatment group.

Instruments

Pre-Treatment Tests

The pre-treatment instruments consist of two personality tests: The College Inventory of Academic Adjustment (Borow, 1947) and the Tennessee Self-Concept Scale (Fitts, 1965). A description of these instruments follows.

College Inventory of Academic Adjustment (CIAA).--The CIAA is a self-administering questionnaire designed to identify attributes statistically independent of scholastic aptitude which are related to the student's academic performance. It consists of ninety items which are classified into six diagnostic categories. These categories are: (a) curricular adjustment, (b) maturity of goals and level of aspiration, (c) personal efficiency, (d) study skills and practices, (e) mental health, and (f) personal relations. The CIAA also yields a composite score, which is a total of the subjects unweighted scores on the six diagnostic categories.

Research on the CIAA has demonstrated its potential value in identifying and discriminating among a normal and over- and under-achieving student (Borow, 1947; Burgess, 1953; Centi, 1959; Popham and Moore, 1960;

DeSena, 1964). Moreover, it has been found that there is a significant relationship between students' scores on the CIAA and their grades in college (Borow, 1949). Of particular significance to this study was the finding of Gelso and Rowell (1967) that the CIAA significantly differentiated between persistent and non-persistent students of marginal academic potential.

The Tennessee Self-Concept Scale (TSCS).--According to the author, William H. Fitts (1965), the Tennessee Self-Concept Scale was developed for the purpose of providing a well-standardized measure of self-concept that was easily administerable, widely applicable, multidimensional, and could be used for counseling and for research purposes.

> The Scale consists of 100 self-descriptive statements which the subject uses to portray this own picture of himself. The Scale is self-administering for either individuals or groups and can be used with subjects age 12 or higher and having at least a sixth grade reading level. It is also applicable to the whole range of psychological adjustment from healthy, well-adjusted people to psychotic patients (1965, p. 1).

The Scale is available in two forms, the Counseling Form and the Clinical and Research Form. The Clinical and Research Form is used in this study.

It is possible to obtain scores for twenty-nine scales, some of which are summation and variability scores for other scales. According to the manual, one of the most important scores is the "Total P Score," which reflects the overall level of self-esteem. Other

scales used in this study included: Total Variability, Total Conflict, Defensive Positive, General Maladjustment, Psychosis, Personality Disorder, Neurosis, Personality Integration, and Number of Deviant Signs. The TSCS has been shown to be sensitive to psychotherapeutic change (Ashcraft and Fitts, 1964) and reports reliabilities greater than .90 (Fitts, 1965). Content, predictive, concurrent and construct validities are also reported (Fitts, 1965). The TSCS was used in this study to assess changes in self-concept and general adjustment.

Post-Treatment Tests

The post-treatment tests includes the two personality tests described above. Also, an additional instrument is used: the Counselor Behavior and Relationship Questionnaire, a post-treatment attitude survey designed to assess the counselees' perceptions of counselor behavior and the counseling relationship (a copy of this questionnaire appears in Appendix A).

Counselor Behavior and Relationship Questionnaire (CBRQ).--The CBRQ is a self-administering questionnaire constructed by the author to assess counselees' perceptions and attitudes in three main content areas: (1) perception of treatment approach, (2) perception of counselor involvement, and (3) perception of counseling relationship and process.

The first content area, counselees' perception of treatment approach, is more specifically concerned with assessing the extent to which Ss perceive differing amounts of counselor structuring behavior in the SBM and TIE treatment approaches. This subscale consists of ten true-false items randomly interspersed among eighteen additional true-false items. The ten items constituting the perception of treatment approach are listed separately in Appendix A. The additional eighteen items are drawn from the Relationship Inventory constructed by Truax and Carkhuff (1967). These additional items were designed by Truax and Carkhuff to assess counselor empathy, non-possessive warmth, and genuineness and are included in order to make less obvious the purpose of the other items included in the questionnaire. The Truax and Carkhuff items are not analyzed for purposes of this study. Items are keyed so that a high score indicates counselees' perception of highly structured, behavior modification procedures. Each item is assigned one point and the score on the subscale is the sum of the individual items answered in the highly structured direction.

The second content area assessed by the questionnaire is the counselees' perception of the extent of counselor involvement in the treatment relationship and process. This subscale consists of four items rated on

a five point scale from "very much," with a rating of five, through "not at all," with a rating of one. The score on the subscale is the sum of the ratings on the individual items. The four items constituting the counselor involvement subscale are also listed separately in Appendix A.

The final content area assessed by the CBRQ is designed to measure various aspects of the counseling relationship and process. These six individual items assess counselees' perceptions of counselor liking for counselee, counselee liking of counselor, help received, enjoyment of counseling relationship, desire to continue counseling and Negro-white counselor preference. Items are rated on a five point scale from "very much," with a rating of five, through "not at all," with a rating of one. Item thirty-seven, assessing preference for a Negro counselor, was rated on a three point scale. Each item is analyzed separately and, in this case, are not summated to form a subscale. The six items constituting this content area are also listed separately in Appendix A.

Counselors

The counselors used in this study are advanced doctoral students in clinical and counseling psychology. All counselors are males with ages ranging from twenty-seven to thirty-eight years. They have all had over one year of supervised practicum experience at the

Michigan State University Counseling Center. Three of the counselors have also had one additional year of internship experience. The two counselors with the least experience were assigned to different treatment groups in an attempt to balance the counselor experience level between treatment groups. All counselors have had one previous term of experience with the students from which the treatment samples are drawn.

Three counselors were assigned to the SBM treatment approach, with one counselor seeing ten Ss, another seven, and a third three. Whereas, two counselors were assigned to the TIE treatment approach with one seeing fourteen Ss and the other seven. Each of the three counselors that used the SBM counseling approach have had experience and supervision with both structured, behavior modification methods and traditional, insight-expressive methods but expressed a preferred orientation toward the SBM therapeutic approach with these students. On the other hand, the two counselors that used the TIE treatment approach have had training and experience with traditional, insight-expressive methods but not with structured and behavior modification methods. Furthermore, they expressed a preferred orientation toward the TIE therapeutic approach. Descriptions of the SBM and the TIE treatment procedures (see Appendix B) were, respectively, shown to each of the SBM and TIE counselors

to determine if in fact it is descriptive of their approach to counseling. Each counselor agreed that it is an accurate description of their treatment methods.

Procedure

Subjects were contacted by a letter from the Director of the Detroit Project and asked to contact the Counseling Center to make an appointment with their assigned counselor. If the Ss did not respond after one week, they were contacted personally by their counselor. Following the first interview all counselees were asked to take the College Inventory of Academic Adjustment and the Tennessee Self-Concept Scale. The procedures used in the different treatment groups are described in detail below. Counseling for both treatment groups consisted of six individual interviews. A minimum criterion for inclusion in the treatment groups was attendance at two sessions. At the end of the last session, counselee's were readministered the CIAA and the TSCS and filled out the Counselor Behavior and Relationship Questionnaire to assess the counselee's perception of counselor behavior and the counseling relationship.

Treatment Procedures

Introduction.--The treatment period consisted of six weeks, beginning with the fourth week of the winter term and proceeding through the tenth week of the term.

The period covered includes the week preceding midterm examinations through the week immediately preceding final examinations.

The two treatment procedures have in common two major similarities which at the same time are sources of difference. One of the most obvious similarities is that the primary mode of communication is that of verbal-talking exchange. It might also be noted that all of the counselors were initially trained in the methods of traditional, verbal-expressive counseling. The counselors using the SBM procedures did not abandon their training and beliefs concerning the traditional, insight-expressive procedures but developed additional facility with structured and behavior modification procedures. Although verbal-talking exchange is the primary mode of communication for both treatment procedures, the SBM counselor is not confined to this mode. Other techniques exist for the SBM counselor such as reconditioning and restructuring of the environment.

Another similarity, as several authors have pointed out (London, 1964; Ullmann and Krasner, 1965), is that a number of learning theory concepts (reconditioning, modeling, extinction) are employed by traditional, insight-expressive practioners as well as by behavior oriented practioners. Furthermore, it is quite possible for the traditional insight-expressive counselor to focus

his attention on the development of study skills and study habits through the use of traditional, insight-expressive procedures. However, in the present investigation, the SBM treatment procedure planned and specified in advance the systematic application of structuring and learning principles such as stimulus control, desensitization, environmental restructuring, negative reinforcement, and so forth.

Thus, it is recognized that the two treatment methods used in this investigation are not entirely independent. However, for purposes of this study the operational distinction between behavior therapies and traditional, insight-expressive therapies as outlined by Ullmann and Krasner (1965) will be used to define and delineate the differences in treatment procedures. The operational distinction includes the following two points:

1. The a priori rather than post hoc use of structuring and behavior modification concepts, and
2. The explicit systematic application of these concepts to achieve the particular goals selected at the start of treatment.

It should be noted that this investigation is concerned with a comparison of the effectiveness of the treatment approach as a whole. No conclusions can be drawn about the unique contributions of the various

phases and techniques to the overall effectiveness of treatment approach.

Structured, Behavior Modification Counseling Treatment.--The structured behavior modification treatment approach is based primarily on the procedures proposed by Phillips and Wiener (1966), Goldiamond (1965), Bandura (1963), and Stuart (1967). They are outlined in Appendix B.) The SBM procedure is characterized by an active focus on behaviors directly related to academic success. An emphasis is placed on a clear and concise assessment of problems interfering with successful academic performance, on planning and carrying out of attacks on these problems, and on evaluating the outcome of the planned attack with reassessment and modification of the original plans of action. The client and the counselor work together to plan the attack on the counselee's problems, but the counselor assumes a great deal of responsibility for initating and putting the assessment, treatment and evaluation process into action. The primary techniques used in the SBM approach include scheduling and structuring of time, keeping records, stimulus control, restructuring of the environment, explicit use of positive and negative reinforcement and practice in study skills behaviors.

Traditional, Insight-Expressive Counseling Treatment.--The traditional, insight-expressive treatment

approach is primarily based on the procedures proposed by Rogers (1959), Sullivan (Perry and Gravel, 1953), and Truax and Carkhuff (1967). (They are outlined in Appendix B.) The TIE treatment procedure is characterized by a focus on phenomenological events, i.e., on the awareness, understanding and expression of feelings, thoughts and experiences. The underlying assumption is that a clearer understanding of the feelings, thoughts, etc., "behind" the client's current actions and verbalizations will increase the effectiveness of his functioning and in turn, increase the chances for academic success. With this approach the counselee assumes a large part of the responsibility for initiating the content and amount of the verbal interactions. The primary techniques used in the TIE counseling approach include the therapist's reflections, clarifications, summarizations and reformulations of the client's expressions; communication of an accurate empathetic, genuine and warm understanding of the counselee; use of the client-counselor relationship itself as a means of learning about interpersonal relationships; and talking about study skills and study habits.

No Contact Control.--Since this research study is part of a larger experimental administrative project for "educationally disadvantaged" students, it was not feasible to withhold counseling services from a group

of these students for control purposes, because the potential damage which might occur as a result of a failure experience in college was too great a risk to the life of the individual student. Therefore, a no-contact control group of low ability students, matched on sex and CQT score variables, was drawn from the general population of equivalent term freshmen. Academic performance scores are obtained from student records without any risk to anonymity. No personality tests were administered to these students.

It is recognized that this control group is less than an optimum control group since it is largely composed of white, middle class, regularly admitted students. However, for purposes of this study it is matched on the most crucial variable, that of ability, as measured by entrance examinations.

Refused Treatment Group.--The refused treatment group is composed of the attrition subjects from the two treatment groups. These students were contacted by letter and then by their assigned counselor and encouraged to attend the individual counseling sessions. However, they absolutely refused to attend or be part of the proffered counseling.

It is recognized that this group is not an adequate control group. Nevertheless, the performance of students who reject proffered counseling as compared to those who

accept counseling is an interesting and potentially informative additional bit of information. Academic performance but not personality test data was obtained from this group.

CHAPTER IV

RESULTS

Introduction

The analysis of results is divided into three major sections: (a) pre-treatment data, (b) post-treatment data and tests of the hypotheses, and (c) data related to the exploratory questions. The data were punched on IBM cards and analyzed by the CDC 3600 computer at Michigan State University.

Pre-Treatment Data

Since Ss are not randomly assigned to treatment groups in a systematic way and therefore, the possibility of bias may have been introduced, a check was made for significant differences between treatment groups on the major dependent variables available before treatment. Furthermore, since the control groups are matched on an ability variable, i.e., College Qualification Test scores, but not on performance variables, i.e., fall term GPA and credits earned, a check for significant differences between these variables is also made. Analyses of variance were computed to test for significant differences between the means of treatment and control groups on the CQT

scores, the fall term GPA's and the number of credits earned.

Table 1 lists the means and standard deviations of treatment and control groups on CQT scores, fall term GPA and fall term credits earned. Table 2 presents the results of analysis of variance between groups on these variables. The data indicate that the CQT means of the groups do not differ significantly but that both fall term GPA and fall term credits earned group means differ significantly ($p = .01$). Scheffé's (Hays, 1963) method of testing for the significance of post-hoc comparisons was performed on the fall term GPA and fall term credits earned measures to find the source of the significant effects. Results of this analysis are found in Table 3.

Since the Scheffé test is very conservative (Winer, 1962, p. 88), both the .05 and .10 levels of significance are shown in Table 3. Results indicate that for the fall term GPA's the difference between the means of the SBM treatment group and the TIE control group are significantly different ($p < .05$). None of the other mean comparisons are significantly different. Comparison of means for fall term credits earned indicates that the SBM treatment group differs significantly from the SBM control group and the TIE control group at the .10 and .05 level, respectively. The means of the two treatment groups are not significantly different on either of the pre-treatment measures.

TABLE 1.--Means and standard deviations of the treatment and control groups on CQT, fall term GPA and fall term credits earned (CE).

	CQT		Fall GPA		Fall CE	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
SBM Treatment (N=16)	82	29.17	1.18	.51	6.8	2.9
TIE Treatment (N=13)	98	23.45	1.31	.68	8.2	3.9
SBM Control (N=16)	85	26.96	1.68	.72	10.3	4.1
TIE Control (N=13)	98	23.45	1.89	.60	10.8	3.0

TABLE 2.--Analysis of variance between groups on CQT, fall term GPA and fall term credits earned (N=58).

Source of Variation	SS	df	MS	F	P
CQT					
Between Groups	3048.14	3	1016.05	1.49	.23
Within Groups	36864.98	54	682.68		
Total	39913.12	57			
Fall GPA					
Between Groups	46229.30	3	15409.77	3.84	.01
Within Groups	216644.77	54	4011.94		
Total	262874.07	57			
Fall Credits Earned					
Between Groups	154.72	3	52.57	4.12	.01
Within Groups	689.26	54	12.76		
Total	846.98	57			

TABLE 3.--Scheffé tests of significance of differences between means on fall GPA and credits earned.

Fall Term GPA	Group			
	Mean	TIE	SBM Control	TIE Control
Mean		1.31	1.68	1.89
Group				
SBM	1.18	-.13	-.50	-.71**
TIE	1.31		-.37	-.58
SBM Control	1.68			-.21

Fall Term Credits Earned	Group			
	Mean	TIE	SBM Control	TIE Control
Mean		8.2	10.3	10.8
Group				
SBM	6.8	-1.4	-3.5*	-4.0**
TIE	8.2		-2.1	-2.6
SBM Control	10.3			-0.5

N=16 for SBM treatment and control groups.
N=13 for TIE treatment and control groups.

* = Sig. < .10 level
** = Sig. < .05 level
\- = Columns are greater than rows

In summary, the data indicate the groups do not differ significantly on the crucial matching variable, ability level as measured by the CQT. Furthermore, the treatment groups do not differ significantly on pre-treatment performance measures, i.e., GPA and credits earned. However, the SBM treatment group is significantly

lower than the TIE control group on the fall term GPA measure and lower than both control groups on the fall term credits earned measure. Since significant differences exist on these dependent measures before treatment, comparisons of the actual GPA and credits earned measures following treatment are inappropriate. Instead, analyses of covariance are performed on the data using the respective fall term GPA and credits earned measures as the covariate. This statistical technique partials out the effect of the original differences in the performance measures.

Post-Treatment Data

Hypothesis I predicts that the SBM and the TIE treatment groups will exhibit a significantly greater increase on academic performance measures following treatment than control groups matched on ability level, as measured by the College Qualification Test. Table 4 presents the means and standard deviations for each group on the academic performance measures which included winter and spring term GPA's, number of credits earned winter and spring terms, and number of terms completed. Due to attrition, the spring term GPA and credits earned measures are based on reduced N's. Term GPA's and term credits earned are plotted in Figure 1 and Figure 2, respectively.

TABLE 4.--Means and standard deviations for treatment and control groups on academic performance measures.

Group	Fall GPA		Winter GPA		Spring GPA+		Terms Completed	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
SBM Treatment (N=16)	1.18	.51	1.21	.67	1.55	.73	3.00	.00
TIE Treatment (N=13)	1.31	.68	1.43	.81	1.72	.77	2.69	.48
SBM Control (N=16)	1.68	.72	2.09	.47	2.00	.72	2.75	.45
TIE Control (N=13)	1.89	.60	1.82	.64	2.27	.57	2.77	.44

Group	Fall CE		Winter CE		Spring CE+	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
SBM Treatment (N=16)	6.81	2.95	7.94	3.89	9.81	4.07
TIE Treatment (N=13)	8.15	3.95	7.46	4.48	10.67	3.77
SBM Control (N=16)	10.31	4.19	13.75	2.18	13.33	4.36
TIE Control (N=13)	10.85	3.00	11.23	4.42	12.70	2.41

+Due to attrition, the spring term measures are based on the following N's: SBM treatment, 16; TIE treatment, 9; SBM control, 12; and TIE control, 10.

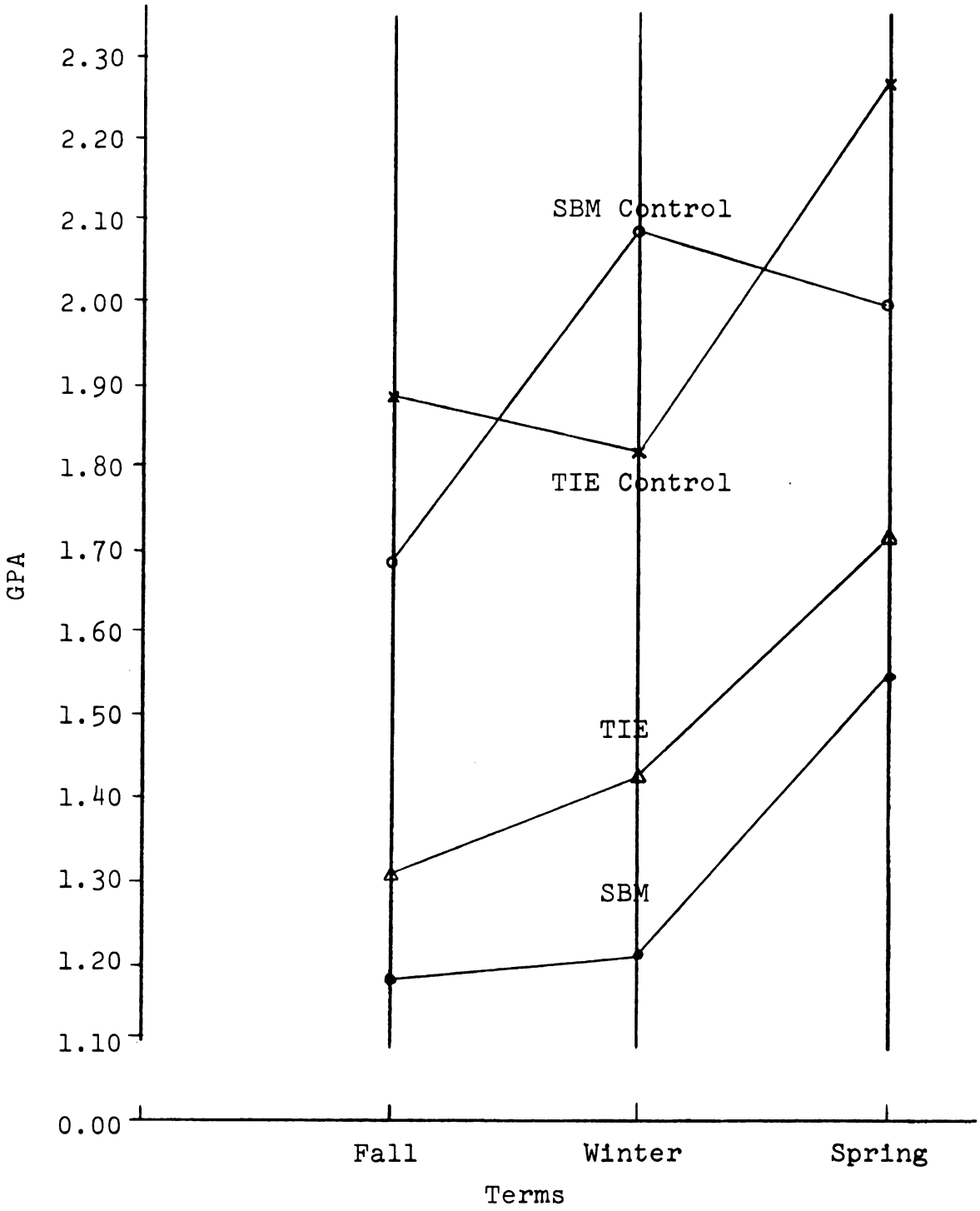


Figure 1.--GPA of the Treatment and Control Groups for Fall, Winter and Spring Terms.

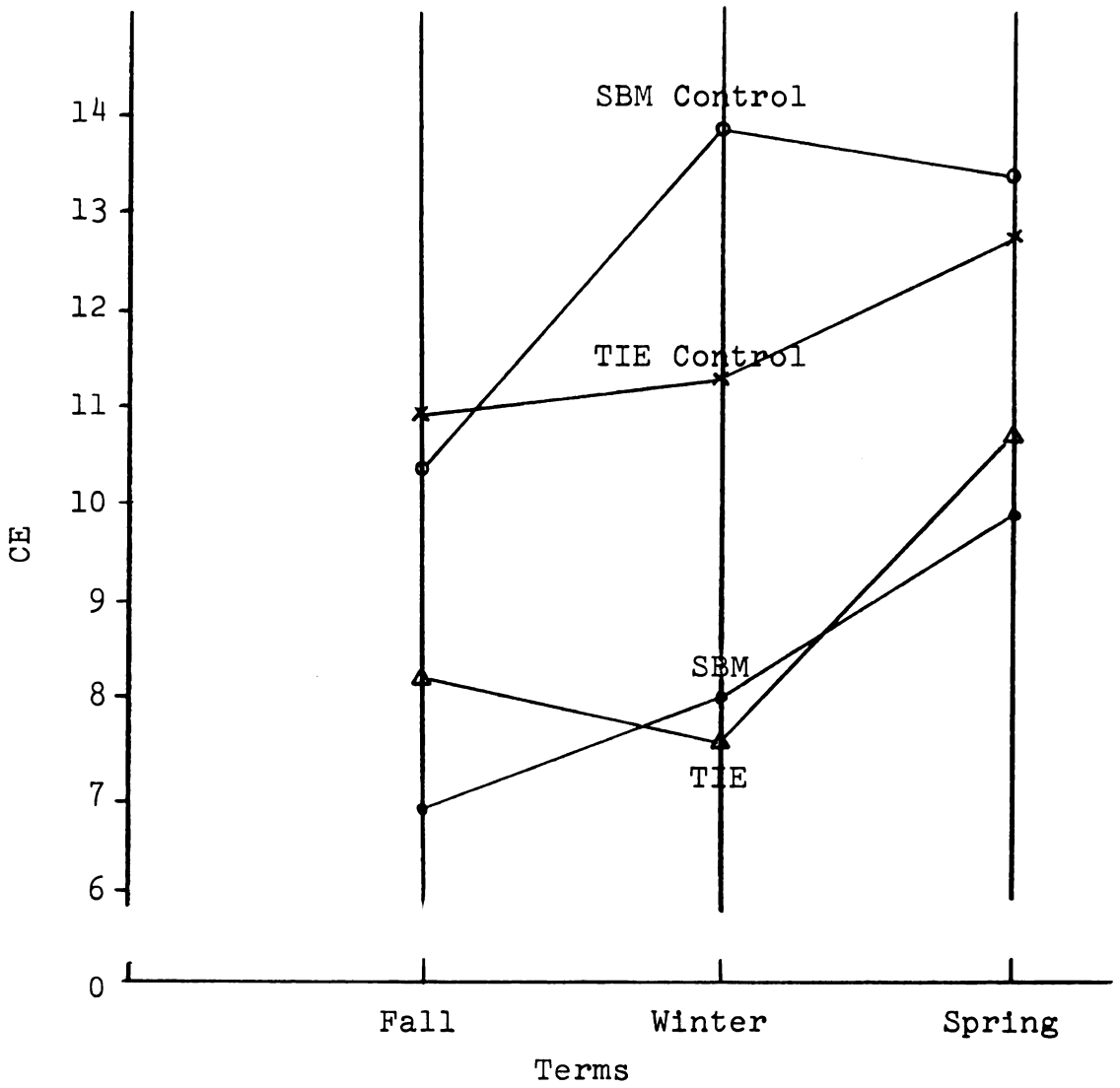


Figure 2.--Credits Earned for the Treatment and Control Groups for Fall, Winter, and Spring Terms.

Table 5 and Table 6 present the analysis of covariance data and adjusted means, respectively, for the treatment and control groups. Since the difference between the means of several of the groups are significantly different on pre-treatment GPA and credits earned measures, it is essential that this factor be taken into consideration on post-treatment comparisons. As suggested above (Campbell and Stanley, 1963, p. 23), the most effective way to take this initial difference into consideration is to use an analysis of covariance treatment of the data and partial out the effect of fall term differences by using the fall term GPA and fall term credits earned measures as covariates for the respective analyses of winter and spring term GPA and credits earned post-treatment measures. Also, an additional post-treatment measure, the number of terms completed, is compared between groups, using initial CQT differences as the covariate, thus partialling out the effect of differences in ability level.

Table 5 indicates that the difference between the means of groups on the winter term GPA ($p = .05$) and the number of credits earned winter term ($p = .001$) are significant. Differences between the means of the other academic performance measures are not significant.

Results of the Scheffé method of post-hoc comparisons on the significant F values are reported in Table 7.

TABLE 5.--Analysis of covariance for treatment and control groups on academic performance measures (N=58).

Source of Variation	SS	df	MS	F	P
Winter GPA*					
Between	33798.32	3	11266.11	3.26	.03
Within	183232.57	53	3457.22		
Spring GPA+*					
Between	5037.33	3	1679.11	.43	.73
Within	163958.08	42	3903.76		
Winter CE**					
Between	213.31	3	71.10	6.04	.001
Within	624.35	53	11.78		
Spring CE+**					
Between	81.06	3	27.02	1.82	.16
Within	622.17	42	14.81		
Terms Completed**					
Between	1.10	3	.37	2.56	.06
Within	7.55	53	.14		

+N = 47 because of attrition.

*Fall term GPA as covariate.

**Fall term CE as covariate.

***CQT as covariate.

TABLE 6.--Analysis of covariance adjusted means for treatment and control groups on academic performance measures.

Groups	Adjusted Means				
	Winter GPA*	Spring+ GPA*	Winter CE*	Spring+ CE*	Terms Completed***
SBM Treatment	1.36	1.72	7.85	9.92	3.30
TIE Treatment	1.51	1.77	8.95	10.66	2.66
SBM Control	2.01	1.94	13.13	13.29	2.77
TIE Control	1.64	1.96	10.36	12.59	2.74

+N = 47; otherwise N = 58.

*Fall term GPA as covariate.

**Fall term CE as covariate.

***CQT as covariate.

TABLE 7.--Scheffé tests of significance of differences between means of treatment and control groups on winter term GPA and winter term credits earned.

		Group		
	Mean	TIE	SBM Control	TIE Control
Winter Term GPA				
Mean		1.51	2.01	1.64
Group				
SBM	1.36	-.15	-.65*	-.28
TIE	1.51		-.50	-.13
SBM Control	2.01			.37
Winter Term Credits Earned				
Mean		8.95	13.13	10.36
Group				
SBM	7.85	-1.10	-5.28*	-2.51
TIE	8.95		-4.18*	-1.41
SBM Control	13.13			2.77

N = 16 for SBM treatment and control group.
N = 13 for TIE treatment and control group.

* = Sig. at .05 level
- = Columns are greater than rows

Results of the comparisons of winter GPA means indicate that the mean of the SBM treatment group differs significantly from that of the SBM control group ($p < .05$), with the SBM control group exhibiting a higher winter term GPA. Regarding the number of credits earned, both the SBM and the TIE treatment group means are significantly lower than the SBM control group ($p < .05$). No other mean comparisons are significant for the three variables.

To summarize, hypothesis I predicts that the treatment groups will exhibit a significantly greater mean increase on academic performance measures than the control groups. However, the mean differences which are significant are in the direction opposite of that predicted. The data indicate that when the effects of differences in pre-treatment measures are partialled out, post-treatment winter term GPA and number of credits earned winter term differ significantly. These significant differences occur between the SBM treatment group and its control group on the winter term GPA measure and between the two treatment groups and the SBM control group on the number of credits earned winter term, with the control groups exhibiting higher means on these measures. All groups exhibit an increase in GPA and in the number of credits earned between fall and spring terms. The control groups consistently exhibit higher means than the treatment groups. Hypothesis I, therefore, is not supported.

Hypothesis II predicts that the SBM treatment group will exhibit a significantly greater mean increase on academic performance measures than the TIE treatment group. Before presenting the results relating to hypothesis II, it seems appropriate to present data regarding the counselees' perceptions of the differences between the two treatments. In order to provide additional support for the assertion that differences between treatment groups are attributable to differences in treatment procedures, several checks are made on counselee perceptions. Although the differences between the traditional, verbal expressive and the structured, behavior modification treatment procedures are clearly laid out (Appendix B) and the respective counselors agreed that the procedure does accurately describe what they do, an additional check was made on counselee's perceptions of treatment procedures. Ten items from the Counselor Behavior and Relationship Questionnaire are used to assess counselee's perceptions of differences in treatment procedures (items are listed in Appendix A).

Results of counselee's perceptions of differences in treatment procedures are found in Table 8. Items are keyed so that a high score indicates counselee's perceptions of highly structured, behavior modification procedures. Reference to Table 8 indicates that the perception of treatment procedures of counselees in the SBM

TABLE 8.--Means, standard deviations, t and P values for treatment groups on counselee's perceptions of differences in treatment methods and counselor involvement (two-tailed).

Variable	Mean	SD	t	P
Subject's Perception of Differences in Treatment Procedures				
SBM Treatment (N=16)	6.38	1.99	2.066	.05
TIE Treatment (N=13)	5.00	1.47		
Counselor Involvement				
SBM Treatment (N=16)	15.88	6.90	.648	.52
TIE Treatment (N=13)	17.15	1.86		

and counselees in the TIE treatment groups differed significantly ($p = .05$). Thus, indicating that counselees in the SBM treatment group perceived a significantly greater amount of structuring and direction in the treatment they received than did counselees in the TIE treatment group.

The possibility of differential investment of counselors in the treatment procedures they use is another important issue to be taken into consideration when several different counseling methods are being compared. For this reason, four items from the Counselor Behavior and Relationship Questionnaire are

used to assess counselees' perceptions of counselor involvement in the treatment procedures. These items are also listed in Appendix A separate from the questionnaire. Results of the t test for differences between means are listed in Table 8 and indicate that there are no significant differences in counselees' perceptions of counselor involvement in the two treatment procedures. Thus, according to the counselees' perceptions of counselor behavior, the two treatment groups received different levels of structure from counselors with similar involvement in the treatment process.

In order to test hypothesis II, analysis of covariance was carried out on the dependent measures to test for significant differences between means. Table 9 presents the analysis of covariance data on mean change in GPA for winter and spring terms, credits earned for winter and spring terms, and number of terms completed. Table 10 shows the adjusted means for these measures. The data indicate that the SBM treatment group completed a significantly ($p = .007$) greater number of terms than the TIE treatment groups. Otherwise, there are no significant differences between groups on performance variables. Therefore, hypothesis II is not supported.

Hypothesis III predicts that the acceptance and participation in counseling, as measured by proportion

TABLE 9.--Analysis of covariance for treatment groups on academic performance measures.

Source of Variation	SS	df	MS	F	P
Winter GPA*					
Between	1480.39	1	1480.39	.33	.57
Within	116759.57	26	4490.75		
Spring GPA+*					
Between	37.70	1	37.70	.008	.93
Within	99231.64	22	4510.53		
Winter Credits Earned**					
Between	12.85	1	12.85	1.02	.32
Within	328.37	26	12.63		
Spring Credits Earned+**					
Between	3.81	1	3.81	.28	.60
Within	281.11	22	12.78		
Terms Completed***					
Between	.85	1	.85	8.57	.007
Within	2.57	26	.10		

+N = 25 because of attrition; otherwise N = 29.

*Fall term GPA as covariate.

**Fall term CE as covariate.

***CQT as covariate.

TABLE 10.--Analysis of covariance adjusted means for treatment groups on academic performance measures.

Group	Winter GPA	Spring GPA*	Winter CE	Spring CE*	Terms Completed
SBM Treatment (N=16)	1.25	1.60	8.34	10.31	3.02
TIE Treatment (N=13)	1.39	1.62	6.97	9.78	2.66

*N = 9 for TIE treatment on spring term measures.

of subjects accepting proffered counseling and mean number of sessions attended will be significantly greater for the SBM treatment group than for the TIE treatment group. Table 11 presents the proportion of subjects accepting proffered counseling for each treatment group and the z value. The data indicate that the difference between the proportion of subjects accepting proffered counseling is not significant.

TABLE 11.--Proportions, SE of difference, z and P values of treatment groups on the proportion of subjects accepting proffered counseling.

Variable	Proportion	SE of Difference	z	P
Proportion Accepting Counseling				
SBM Treatment (N=16)	.80	.141	1.29	.10
TIE Treatment (N=13)	.62			

Results of the t test of the difference between mean number of counseling sessions attended for the treatment groups are presented in Table 12. The results indicate that the SBM treatment group attended a significantly ($p = .05$, one-tailed test) greater number of counseling sessions than did the TIE counseling group.

TABLE 12.--Means, standard deviations, t and P values of treatment groups on the number of counseling sessions attended during treatment (one-tailed).

Variable	Mean	SD	t	P
Counseling Sessions Attended				
SBM Treatment (N=16)	4.31	1.31	1.814	.05
TIE Treatment (N=13)	3.38	1.66		

The data provides partial support for hypothesis III. A significantly greater number of counseling sessions were attended by the SBM treatment group.

Hypothesis IV predicts that the SBM treatment group will exhibit a significantly higher mean increase on the subscales of Personal Efficiency: planning and use of time and Study Skills and Practices as measured by the CIAA, than the TIE treatment group. Analysis of covariance using pre-test scores as the covariate are

performed on the data. Table 13 presents the pre-test and post-test means and standard deviations for the treatment groups on the CIAA subscale measures.

TABLE 13.--Pre-post mean and standard deviation scores for treatment groups on CIAA subscale measures.

Treatment	Test Condition	CIAA Subscales			
		Personal Efficiency		Study Skills	
		Mean	SD	Mean	SD
SBM Treatment (N=14)	Pre	17.29	5.06	24.07	3.17
	Post	18.79	6.29	22.50	6.53
TIE Treatment (N=13)	Pre	20.85	7.72	26.85	8.62
	Post	20.23	8.34	29.08	7.97

The analysis of covariance data on CIAA subscale measures are reported in Table 14 and the adjusted means for these measures are reported in Table 15. Results of these analyses indicate that the difference between the means of the treatment groups on the Personal Efficiency and Study Skills and Practices measures are not significant. The data, therefore, do not support hypothesis IV.

TABLE 14.--Analysis of covariance for treatment groups on CIAA subscales with pre-test score as covariate (N=27).

Source of Variation	SS	df	MS	F	P
Personal Efficiency					
Between	12.42	1	12.42	.44	.51
Within	673.62	24	28.07		
Study Skills					
Between	128.97	1	128.97	3.65	.07
Within	848.91	24	35.37		

TABLE 15.--Analysis of covariance adjusted means for treatment groups on CIAA subscale measures.

Treatment	Adjusted Means	
	Personal Efficiency	Study Skills
SBM Treatment (N=14)	20.16	23.62
TIE Treatment (N=13)	18.75	28.10

Exploratory Questions

Question 1 inquires about significant changes in self-concept and personal adjustment as measured by subscales of the TSCS related to the SBM and the TIE treatment procedures. Analysis of covariance using pre-test scores as the covariate are performed on the data. Pre- and post-treatment means and standard deviations

for the two treatment groups on TSCS subscale measures are reported in Table 16. Table 17 shows the analysis of covariance data and Table 18 shows the adjusted means on these measures.

The data indicate that there are no significant differences between post-treatment means on any of the self-concept and personal adjustment subscales. In other words, when the effects of pre-treatment differences between groups are partialled out there are no significant post-treatment differences between the treatment groups on the ten TSCS subscale measures used in the study.

The second exploratory question deals with pre-post treatment changes in self-concept and personal adjustment as measured by the TSCS that are correlated with pre-post treatment changes in GPA. Pearson product-moment coefficients are computed between fall minus winter GPA and pre-test minus post-test scores on ten self-concept and personal adjustment subscales of the TSCS as listed in Table 19. Since the sample size of the individual treatment groups are small and only very high correlations can be accepted with confidence, the treatment groups are combined to increase the sample size and the power of the significance tests.

Correlations between fall minus winter GPA and pre-minus post-treatment scores on self-concept and personal adjustment subscales of the TSCS are reported in Table 19. The data indicate that change in GPA is

TABLE 16.--Pre-post mean and standard deviation scores for treatment groups on TSCS subscale measures.

Treatment	Test Condition	TSCS Subscales									
		Total Positive Score		Total Variability Score		Total Conflict Score		Defensive Positive Scale		General Maladjust Scale	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SBM Treatment (N=14)	Pre	339.71	31.66	53.57	11.72	34.71	9.48	53.86	12.15	95.21	8.38
	Post	343.78	27.59	49.71	15.50	32.93	9.23	56.57	10.58	97.36	8.12
TIE Treatment (N=13)	Pre	343.77	58.49	36.61	14.02	30.23	10.94	60.46	14.96	94.77	17.49
	Post	355.07	35.84	40.31	9.62	28.46	9.18	61.08	13.86	98.69	8.29

Treatment	Test Condition	TSCS Subscale									
		Psychosis Scale		Personality Disorder Scale		Neurosis Scale		Personality Integration Scale		Number of Deviant Signs Score	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SBM Treatment (N=14)	Pre	48.64	6.23	71.64	9.90	82.14	10.25	9.00	3.16	14.79	13.47
	Post	51.07	5.19	72.14	11.31	83.86	7.35	10.50	4.15	14.21	9.32
TIE Treatment (N=13)	Pre	50.00	4.51	73.85	17.88	85.15	17.61	9.69	4.66	18.77	23.21
	Post	47.29	4.40	72.85	14.21	87.08	11.21	9.69	5.65	15.31	11.71

TABLE 17.--Analysis of covariance for treatment groups on TSCS subscales with pre-test score as covariate (N=27).

Source of Variation	SS	df	MS	F	P
Total Positive Score					
Between	585.62	1	585.62	1.110	.30
Within	12664.11	24	527.67		
Total Variability Score					
Between	.17	1	.17	.001	.97
Within	3009.16	24	125.38		
Total Conflict Score					
Between	42.66	1	42.66	.617	.44
Within	1660.79	24	69.20		
Defensive Positive Scale					
Between	.03	1	.03	.0004	.99
Within	1677.49	24	69.90		
General Maladjustment Scale					
Between	15.32	1	15.32	.372	.55
Within	990.12	24	41.25		
Psychosis Scale					
Between	80.91	1	80.91	3.626	.07
Within	535.49	24	22.31		
Personality Disorder Scale					
Between	2.71	1	2.71	.030	.87
Within	2196.86	24	91.54		
Neurosis Scale					
Between	27.63	1	27.63	.474	.50
Within	1399.06	24	58.29		
Personality Integration Scale					
Between	16.05	1	16.05	2.450	.13
Within	157.49	24	6.56		
Number of Deviant Signs					
Between	.25	1	.25	.003	.96
Within	2323.06	24	96.79		

TABLE 18.--Analysis of covariance adjusted means for treatment groups on TSCS subscale measures.

Treatment	Adjusted Means									
	Total Positive	Total Variability	Total Conflict	Defensive Positive	General Maladjustment	Psychosis	Personality Disorder	Neurosis	Personality Integration	Number of Deviant Signs
SBM Treatment (N=14)	344.73	45.28	32.02	58.71	97.27	51.24	72.79	84.43	10.86	14.65
TIE Treatment (N=13)	354.06	45.08	29.44	58.77	98.78	47.75	72.15	86.46	9.31	14.84

TABLE 19.--Correlations between F - W GPA and pre-post scores on subscales of the TSCS (N=27).

	Total Positive	Total Variability	Total Conflict	Defensive Positive	General Maladjustment	Psychosis	Personality Disorder	Neurosis	Personality Integration	Number of Deviant Signs
F - W GPA	.49**	.44*	.16	.18	-.55**	-.49**	-.32	-.46*	.28	-.47*

*Significant at .05 level.
**Significant at .01 level.

significantly correlated with six of ten TSCS subscales ($p < .05$). The significant self-concept measures are the Total Positive and the Total Variability measures. Change in GPA is directly related to change in overall level of self-esteem ($p = .01$) and change in the amount of variability from one area of self-perception to another ($p = .05$). In other words, those subjects increasing in GPA also increased in level of self-esteem and amount of self-perception variability.

On the other hand, change in GPA in inversely related to change in the personal adjustment subscales of General Maladjustment ($p = .01$), Psychosis ($p = .01$), Neurosis ($p = .05$), and Number of Deviant Signs ($p = .05$). The correlations between change in GPA and change in the personal adjustment scales of personality Disorder, Defensive Positive, and Personality Integration are all in the direction of greater adjustment, although they are not significant. Consequently, those subjects increasing in GPA also decreased in reported levels of maladjustment.

Question III is concerned with exploring possible significant differences in the perception of the counseling relationship and process of Ss receiving the SBM or TIE treatment procedures. Following treatment, subjects were administered the Counselor Behavior and Relationship Questionnaire (Appendix A). Six of the items in the questionnaire were designed to assess subjects' attitudes

toward the counseling relationship and process. Items were rated on a five-point scale from "very much" with a rating of five through "not at all" with a rating of one. Item 37, assessing preference for a Negro counselor is based on a three-point scale from "yes" through "makes no difference" to "no." Mean ratings, standard deviations and *t* values for each treatment group on each of the items are reported in Table 20.

Reference to Table 20 indicates that the subjects from the SBM and TIE treatment groups do not differ significantly on any of the attitude items. Subjects from both treatment groups report that their counselor liked them quite a bit and they in turn liked their counselors very much. They also felt that their counselors had helped them; they enjoyed the relationship they had with him and felt they would probably want to continue counseling. It made no difference to them whether they had a Negro counselor or not.

Question IV is concerned with exploring possible significant differences in the academic performance of those subjects accepting and those subjects refusing proffered counseling. In order to test this question, treatment groups are combined. Table 21 presents the means and standard deviations for each group on the academic performance measures. The spring term GPA and credits earned measures are based on reduced N's due to

TABLE 20.--Means, standard deviations and t and P values of treatment groups on items assessing attitudes toward counseling and counselors (N=27).

Variable	Mean Rating	SD	t	P
Counselor Liking of Subjects				
SBM Treatment	4.43	.76	.917	.37
TIE Treatment	4.15	.80		
Subjects Liking of Counselor				
SBM Treatment	4.50	.76	.458	.65
TIE Treatment	4.62	.51		
Help Received				
SBM Treatment	4.21	1.19	.698	.49
TIE Treatment	3.92	.95		
Enjoyment of Relationship				
SBM Treatment	4.21	1.19	.436	.66
TIE Treatment	4.38	.77		
Continue Counseling				
SBM Treatment	4.00	1.18	.480	.63
TIE Treatment	4.23	1.30		
Negro Counselor Preference				
SBM Treatment	2.21	.43	1.81	.08
TIE Treatment	2.00	.00		

TABLE 21.--Means and standard deviations for combined treatment and refused treatment groups on academic performance measures.

Group	Fall GPA		Winter GPA		Spring GPA+		Terms Completed		Fall CE		Winter CE		Spring+ CE	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Combined Treatment (N=29)	1.24	.59	1.31	.73	1.61	.73	2.86	.35	7.41	3.44	7.72	4.10	10.12	3.91
Refused Treatment (N=12)	1.37	.46	.93	.73	1.25	.52	2.77	.44	8.15	3.13	6.15	4.67	9.20	3.99

+Due to attrition, the spring term measures are based on the following N's: Combined treatment, 25 and Refused treatment, 10.

attrition. Term GPA's are plotted in Figure 3 and term credits earned are plotted in Figure 4.

Table 22 presents the analysis of covariance data on the winter and spring term GPA, the winter and spring term credits earned, and the number of terms completed measures. Table 23 presents the adjusted means on these measures. Reference to Table 22 indicates that the difference between the means on the terms completed measure is significant ($p = .01$), with the treatment subjects completing a significantly greater number of terms. Differences between the means of the other academic performance measures are not significant.

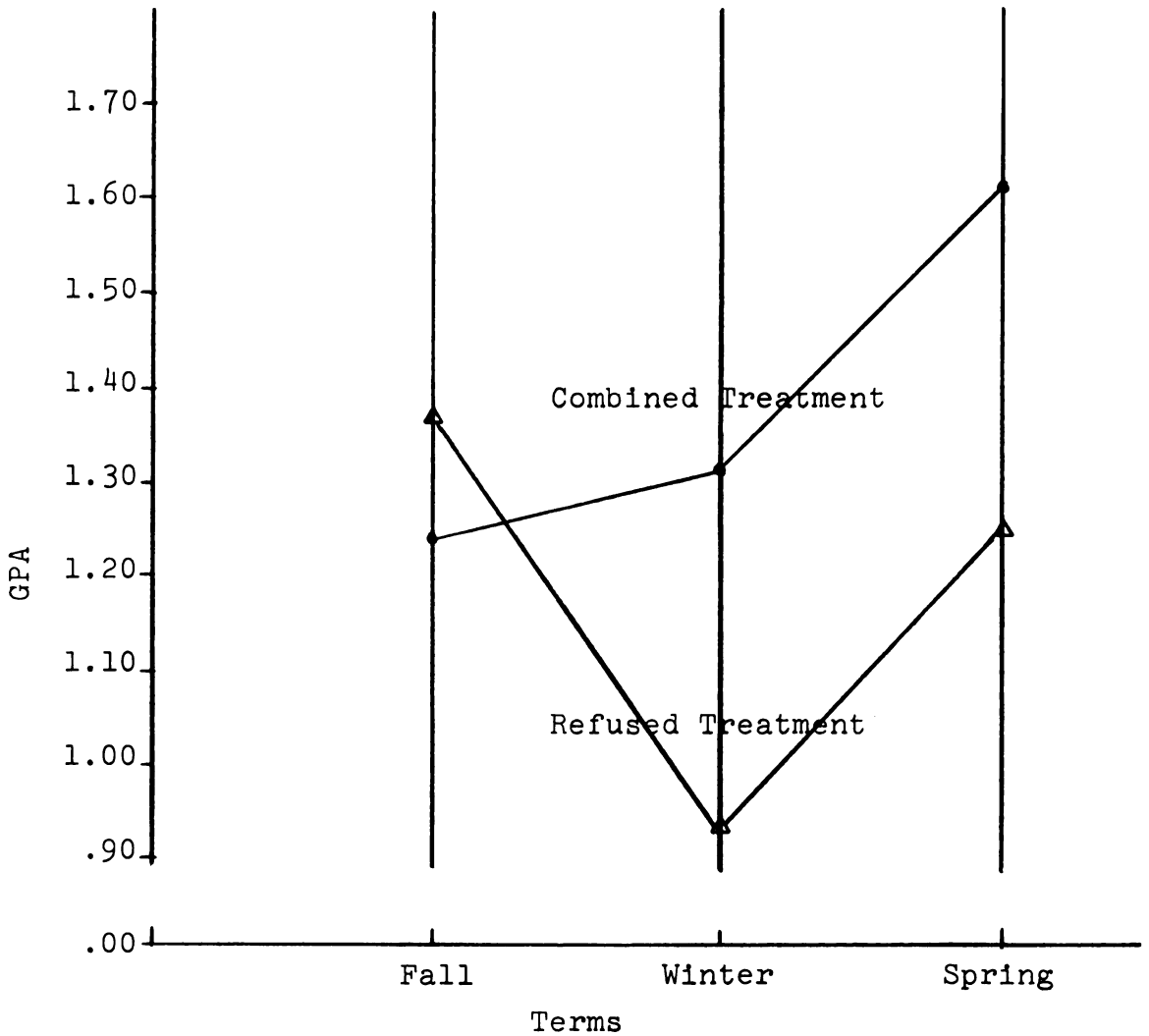


Figure 3.--GPA of the Combined Treatment and the Refused Treatment Groups for Fall, Winter and Spring Terms.

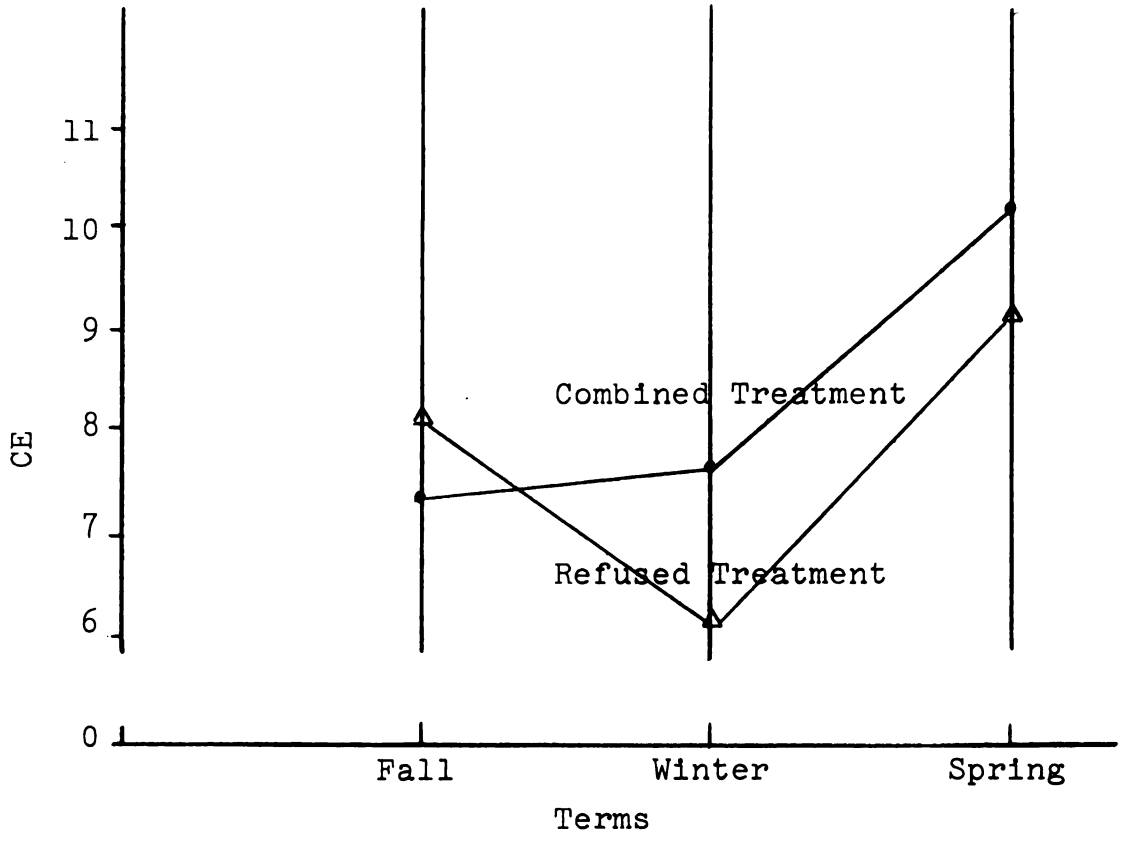


Figure 4.--Credits Earned of the Combined Treatment and the Refused Treatment Groups for Fall, Winter and Spring Terms.

TABLE 22.--Analysis of covariance for combined treatment and refused treatment groups on academic performance measures (N=42).

Source	SE	df	MS	F	P
Winter GPA*					
Between	1291.40	1	1291.40	.26	.61
Within	194331.93	39	4982.87		
Spring GPA+*					
Between	3533.23	1	3533.23	.83	.37
Within	136031.46	32	4250.98		
Winter CE**					
Between	33.83	1	33.83	2.19	.15
Within	602.59	39	15.45		
Spring CE+**					
Between	5.54	1	5.54	.42	.52
Within	426.46	32	13.33		
Terms Completed***					
Between	.89	1	.89	7.12	.01
Within	4.90	39	.13		

+N = 35 due to attrition.

*Fall term GPA as covariate.

**Fall term CE as covariate.

***CQT as covariate.

TABLE 23.--Analysis of covariance adjusted means for combined treatment and refused treatment groups on academic performance measures.

Groups	Adjusted Means				
	Winter GPA*	Spring GPA+*	Winter CE**	Spring CE+**	Terms Completed***
Combined Treatment (N=29)	1.26	1.62	8.41	10.31	3.03
Refused Treatment (N=12)	1.15	1.41	6.52	9.48	2.71

+Due to attrition, combined treatment N=25 and refused treatment N=10.

*Fall term GPA as covariate.

**Fall term CE as covariate.

***CQT as covariate.

CHAPTER V

DISCUSSION

The discussion of results initially follows the same format as the results section with an elaboration on the results of each hypothesis and question. Following the discussion of hypotheses and questions is a discussion of suggestions for future counseling programs, additional research, and limitations of this study.

The Effect of Treatment Versus No Treatment: Hypothesis I

The prediction that the treatment groups will perform significantly better than no-contact control subjects matched on CQT ability level was made on the assumption that: (1) ability level is the most crucial variable on which subjects can be matched, and (2) differences in performance level will be a product of the treatment effects, if, in fact, the treatments are effective. However, the analysis of results indicates that this reasoning is somewhat naive. For the most part, the academic performance of the control group is significantly greater than that of the treatment groups for the

fall and winter quarters. Specifically, the results indicate that a group of predominately white, middle class students receiving no treatment perform significantly better, as measured by GPA and number of credits earned, than a group of Negro, low income students matched on ability level and receiving treatment. These results are true of the fall and winter quarters but the differences between groups are no longer significant by the spring quarter. Thus, the results are in the opposite direction from that predicted. It appears that powerful factors other than CQT ability level and treatment effects are operating to account for the differences in academic performance during the fall and winter quarters.

A closer look at the matching process suggests several factors which may help account for the initial differences. Subjects are matched on sex and ability level variables. (Ability level is defined as the raw score on the College Qualification Test.) However, a closer look at the CQT indicates that it measures a particular aspect of ability, i.e., that of information retained from previous learning (Bennett et al., 1961). In other words, the CQT is a general test of knowledge retained. On the other hand, academic performance depends on a number of other factors such as learning skills, values and attitudes toward learning, parental support, cultural shock, and general coping skills. It may be that some of these factors are as relevant to

differences in academic performance as level of knowledge brought into the college environment.

A factor to be reckoned with is the cultural shock encountered by the subjects. Cultural shock refers to the psychological and physiological stress encountered by individuals when entering a cultural environment that differs in significant ways from the one to which they are most accustomed. In the present situation, differences in food preferences, styles of relating interpersonally, accustomed types of living environment and change from majority status to minority status are all crucial factors. It seems quite possible that students from predominantly Negro, inner-city, low socio-economic high schools encounter more stress when entering a predominantly white, middle class environment of the university than other students, and the difference in demands on the two groups is apt to be reflected in their respective academic performances.

The differences in the attitudes and value systems of the predominately black, lower income students may also have had an important effect on academic performance. Some evidence exists which suggests that there are differences in persistence levels, feelings of control, ability to delay gratification and future time perspectives related to socio-economic and minority group status (Lefcourt and Ladwig, 1965; Katz, 1963; Stein, Sarbin, and Kulik, 1968; Lefcourt, 1965). It is also quite

possible that the value of education differs for both the students and parents of the two groups of students and that these differences in attitudes and values may have a more profound effect on academic performance than does ability level.

Another factor possibly operating to account for differences between the groups involves the general coping skills which the students possessed at the time they entered the University. Coping skills refer to a knowledge and understanding of behaviors necessary to manipulate the university system. In addition to levels of intelligence, knowledge, study skills, study habits, values, and attitudes, academic performance involves a knowledge of how the academic process operates. In other words, a part of successful academic performance includes the ability to operate within the system. It is important to know which professor to take a course from; which courses not to take; how to combine tough courses with easy courses; in which courses to focus heavily on class notes and in which courses to focus heavily on the text; how to make contact with a professor; how to get access to other student's class notes and to test files; how to read introductions and summaries and bluff one's way through an essay test, etc. All of these coping skills are a part of the repertoire of middle class skills used to cope with and operate within the system.

When academic performance is viewed from this broader perspective it becomes more apparent why counseling, which simply focuses on the personal adjustment, study habits and study skills of students, is apt to have less than a drastic impact on the complex problem of academic performance. It appears that counseling cannot be expected to be the whole answer to increasing the academic success of students from low income, inner-city environments. If success is to be achieved with this particular student population, an intensified and complex program including changes in the existing university system may be required. The use of tutoring, classes in language and reading skills, and greater contact with the environmental milieu of the community also might be researched as a means of facilitating desired change.

Another interesting finding is that the difference in academic performance between the so-called "disadvantaged" students of low ability and the regularly admitted control subjects of low ability is not significant for the spring term. The low income, inner-city subjects improved to the extent that the differences were no longer significant. It is possible that some of this improvement may be attributed to the counseling the treatment subjects received. However, it is also probable that an adjustment to the university environment

had begun to take place as well. By spring term the treatment subjects had had an opportunity to adjust to the cultural shock, to improve study skills, study habits and coping skills, and to develop attitudes and values that were more compatible with achievement in the middle class university environment.

It is also interesting to note that the GPA and the number of credits earned by the predominately black, low income subjects during spring term approached the level which the predominately white, middle class subjects achieved during the fall term. After nine months of coping with the new environment, the treatment group subjects performed at about the level at which the control subjects started. This finding raises the speculation that universities may have to readjust their thinking to consider the necessity of a five-year bachelor degree for the low ability, low income, minority student. In other words, it may be necessary to provide a one-year grace period in which the academic performance of the student is not assessed on the same standard as that used to assess the successfulness of the regularly admitted college student. The use of a different academic standard for the first school year appears desirable in order to facilitate the academic achievement and success of the low ability, low income, minority group student. It is commonly asserted that the student attending the inner-city, ghetto school falls further behind each year

(Time, 1968). Thus, the educationally disadvantaged student admitted to the university must spend a portion of his time making up deficits in learning skills, reading skills, etc., in addition to keeping up with his regular class assignments (Cohen, Filipczak and Bis, 1968). Making up these deficits requires additional time not required of the average student who graduates from middle class educational systems. Furthermore, the reduced academic standard decreases the excessive pressure on the academically disadvantaged student, thereby increasing his ability to cope with the various demands of the university environment.

The use of a separate academic scale for the first academic year presents difficult but not insurmountable administrative problems. The separate academic scale during the first year could be slowly integrated into the regular scale during the following years and thus meet the regular scholarship requirements of the university. The academic community would have scholarship based upon reaching certain standards but these standards would be flexible for the first several years at the university. By initially providing a flexible standard which is then integrated into the regular university standard both the concerns of the student and the concerns of the university would

be met. The "educationally-disadvantaged" student would not be awarded a cheaper or lesser degree than the regularly admitted college student, nor would the university be lowering its academic standards. Therefore, the use of a flexible academic standard would not result in the creation of a new kind of second class citizen but would provide an equitable opportunity for a proportion of our society to which it has been previously denied by the very nature of the existing class structure in our society.

Academically, a large number of regularly admitted college students also perform less well during their first years in attendance at the university when they are going through the uncertain, but important, phase of identifying personal and educational goals and then developing a commitment to them. Unfortunately, the low ability level and the learning deficit of the "educationally-disadvantaged" student precludes the same opportunity to go through this exploratory phase. Unless the standards of the university are changed during the first year, he is apt to become another educational failure.

Effect of Treatment on Academic Performance: Hypothesis II

For reasons discussed above, it was hypothesized that the SBM treatment would have a significantly greater effect on academic performance than the TIE treatment.

There are a number of factors that may have contributed to the finding of no difference between treatment groups on the GPA and the number of credits earned measures.

First, the treatment period, in a traditional sense, is short. Although behavior modification methods which were designed to reduce the length of the treatment period are used, it appears that a six-week treatment period is too short to significantly affect the academic performance measures. A longer treatment may have produced significant changes.

It may also be that the behavior modification and structuring techniques used are not powerful enough. Previous research has indicated that the most powerful and effective use of operant conditioning techniques have been demonstrated in controlled environments such as training schools, schools for the retarded, and mental institutions (Cohen, 1968; Ullmann and Krasner, 1965). It appears that the individual freedom characteristic of the university environment presents difficulties in the establishment of contingencies and rewards which will require additional innovations and more powerful techniques if behavior modification techniques are to have a significant effect on academic performance. It also may be that monetary rewards such as were used in the Allen (1966) and Meichenbaum, Bowers and Ross (1968) and Cohen, Filipczak and Bis (1968) studies will be required to produce significant changes in behavior.

A subjective observation reported by several of the SBM counselors was a lack of commitment on the part of subjects to the behavior modification and structuring techniques used in the SBM treatment approach. Commitment to change has long been considered an important factor in facilitating change. A recent study by Winter, Griffith and Kolb (1968) suggests that commitment to changing one's self is a crucial factor in change. Kolb, Winter and Berlow (1968) also found that change on the part of group members was related to the individual's commitment to his change goal and the amount of feedback received from group members. Further, by focusing the group process on increasing goal commitment and feedback, the percentage of students successfully attaining their self-change goals increased from 5 per cent to 61 per cent. Since many of the structured, behavior treatment techniques depend on a rigorous set of reinforcement contingencies, a lack of commitment on the part of subjects to the counseling contract is apt to have a greater detrimental effect on the SBM treatment than on the TIE treatment. Thus, the technology involved in inducing greater commitment to change on the part of clients appears to be a crucial area for further investigation. The use of groups and group methods as a promising means of counseling with low income, low ability, minority group students will be discussed later in the suggestions for future counseling programs section.

Finally, as was stated above, it may be that counseling, regardless of the methods or techniques used, is not powerful enough to produce changes in the academic performance measures. It may be that the one-to-one counseling approach is too narrow. A broader environmental approach designed to change attitudes and values, facilitate cultural adjustment, improve learning skills and coping skills, and raise self-esteem may be needed.

Although there are no significant differences between treatment groups on the GPA and the number of credits earned measures, the results indicate a highly significant difference between groups on the number of terms completed. A significantly greater number of subjects in the SBM treatment group completed three terms. The SBM treatment approach appears to have demonstrated a greater holding power. It may be that the SBM treatment approach with a focus on building structure, study habits and increasing academic success communicated greater "hope" (Mower and Vick, 1948) or feelings of control over his academic situation (Rotter, 1954) to the student. This, in turn, may have facilitated greater persistence on his part even though the effects of treatment did not show up in significantly greater GPA's than the TIE treatment subjects. Since it apparently takes the low income, inner-city, low ability student

longer to adjust to the university environment than the low ability, middle class student, the significance of the greater persistence of the SBM treatment subjects is an important finding. Any form of treatment that prolongs the time of attendance at the university provides increased opportunity for change in attitudes and values and the development of coping skills and learning skills.

Effect of the Treatments on Acceptance of Counseling: Hypothesis III

The hypothesis that subjects will respond with greater acceptance to the SBM counseling approach received partial support. Subjects in the SBM treatment group attended a significantly greater number of counseling sessions than did the subjects in the TIE treatment group. This finding is in agreement with the hypothesis of Goldstein, Heller and Sechrest (1966) that a structured, directive, concrete therapeutic approach is more effective with resistant clients than an ambiguous non-directive approach. The contention is that ambiguity increases threat which in turn increases resistance. With a highly defensive group, an approach which reduced defensiveness should facilitate the establishment of interpersonal relationships and increase the effectiveness of treatment. Although the effectiveness

of treatment as measured by academic performance, self-concept and personal adjustment measures did not differ significantly between groups, the SBM treatment appeared to attract a greater number of subjects for a greater number of sessions. This finding suggests that greater acceptance of the counseling relationship will permit a greater number of counseling contacts. Given the development of more effective counseling approaches, the increased contact would permit greater impact on the counselees. Also since the SBM approach is apparently more readily accepted by resistive subjects, it might be possible to begin the counseling encounter with a structured, concrete approach and then use other methods as the situation requires. The structured behavior modification approach which focuses on the development of structure and learning skills is apt to result in the development of greater respect for the counselor. To the extent that the counselor is perceived as helpful, the counselee is then apt to be more willing to discuss other more personal problems that also interfer with his scholastic achievement.

When the greater acceptance of counseling and the greater persistance of the SBM treatment subjects are viewed together, it appears that the SBM treatment approach has more "holding power" than the TIE treatment approach. Behaviorally, the subjects receiving the SBM treatment responded more favorably toward counseling.

Perception of Change in Structure and Study Skills: Hypothesis IV

A paper-and-pencil test measure of the subjects' perceived change in the amount of structure and in the improvement in study skills was included in the study to supplement the more objective academic performance measures. Results of the analysis indicated that there are no significant differences between treatment groups on either the Personal Efficiency: planning and use of time subscale, or the Study Skills and Practices subscale. However, the difference between groups on the study skills and practices measure approaches significance. Thus, the paper-and-pencil test data appear to support the academic performance data. The treatment approaches have little differential effect on the measured behavior of the subjects either in terms of their academic performance or in in terms of their perceived change in the development of structure and study skills behaviors. The questionnaire measure of the subjects' perceptions of change in the development of structure and study skills supplemented the objective academic performance measures but not in the direction predicted.

The same factors discussed above in explaining the lack of predicted differences in academic performance also apply to the lack of significant differences found with the questionnaire data. For example, the shortness of the treatment period may not have permitted either

either changes in behavior or self-reports of changes in behavior to have taken place. Furthermore, the lack of commitment to counseling on the part of the subjects and the difficulties in setting up rigorous reinforcement contingencies and controlling their application may also help to account for the lack of differences in percpetions.

Finally, it should be noted that the pre-post-test period covered only six weeks, while the academic performance measures also had a second post-treatment measure at the end of spring term (covering an additional ten weeks). It is possible that a later post-test may have revealed perceived changes in the development of structure and study skills that had not had a chance to develop at the end of the six-week treatment period.

Perception of Change in Self-Concept and Personal Adjustment: Question 1

The existing literature did not appear to warrant the prediction of the direction of change in self-concept and personal adjustment as a result of the different treatment approaches. Nevertheless, it was felt that the exploration of these differences would be a valuable supplement to the objective academic performance measures. However, as in the case of the academic performance measures and the perceived change in the development of structure and study skills measures, there are no significant differences in the perceived changes in

self-concept and personal adjustment measures between treatment groups. The consistency of the finding of no significant differences between treatment groups, although disappointing, adds to the validity of the conclusion that the different treatment approaches have little differential effect on the behavior of the subjects. Neither academic performance behavior nor personality variables are significantly modified by the treatment approaches.

Perception of Change in Self-Concept and Personal Adjustment Related to Change in GPA: Question II

The relationships among change in self-esteem, adjustment and academic performance, regardless of the extent of the change, were also explored. It was found that change in GPA is directly related to change in self-esteem and inversely related to change in general maladjustment, psychosis, neurosis and the number of deviant signs. In other words, those subjects who increased in self-esteem also improved their grades and showed less evidence of psychological disturbance. Unfortunately, the opposite is also true. Those subjects who decreased in self-esteem also received poorer grades and showed increased evidence of psychological disturbance. Possibly, increased self-esteem and adjustment result in increased grades. On the other hand, better grades may result in increased self-esteem and adjustment. A delineation of the causal factors awaits further experimental research.

The significant relationships among self-esteem, adjustment and academic achievement are in agreement with existing research. For example, individuals with feelings of inferiority and low self-esteem have exhibited high incidences of psychosomatic disorders and anxiety symptoms (Rosenberg, 1962) as well as lower levels of school achievement (McCollum, 1961; Walsh, 1956).

Although the possibility exists that counseling may have contributed to the improvement in either the self-esteem and adjustment or the grades of some of the subjects, it cannot be concluded that counseling is responsible for the significant interrelationships. Evidence for the effectiveness of counseling *per se* will require a control group of low ability subjects from low income, inner-city environments who are admitted to the university and receive no counseling contact.

Attitudes Toward the Counseling Relationship and Process: Question III

There also are no significant differences between treatment groups on subjects' attitudes toward the counseling relationship and process. Subjects from both treatment groups liked their counselors and perceived their counselors as liking them. They report that they enjoyed the relationship, received help from their counselor, and would probably want to continue counseling

if it were continued next term. They also report that it made no difference whether they had a Negro counselor or not, although three subjects from the SBM treatment group report they would have preferred a Negro counselor while no subjects from the TIE treatment group report that they would have preferred a Negro counselor. The resulting difference between treatment groups regarding Negro counselor preference approaches significance.

Regarding the counselees' attitudes toward counseling, it appears to have made little difference whether the counselor operated from a structured stance, focused on changing patterns of study behavior, or from a less structured stance, focused on awareness of feelings and the meaning of experience. The finding of no difference between groups in their attitude toward counseling occurred despite the finding that the subjects from the two treatment groups perceived differing levels of structure in the SBM and TIE treatment approaches. It appears that there is an apparent discrepancy in the reported attitudes and the actual behavior of subjects regarding the enjoyment of the counseling relationship. Although there was no significant difference between groups in the reported enjoyment of the relationship, the SBM treatment group attended a significantly greater number of counseling sessions. It may be that although the relationships for both groups were equally enjoyable,

the subjects from the SBM treatment group perceived the counseling as more relevant and therefore attended a greater number of sessions.

An initial undertone of resistance and resentment toward counseling was perceived by the counselors from both treatment groups. Yet, when given a chance to express their feelings toward counseling, most subjects responded very positively. Was counseling in fact that well received? One cannot help but wonder if the "hello - goodbye effect" described by Hathaway (1950) may have been operating in the present situation. It is often difficult for a client to respond with anything other than feelings of indebtedness and good-will toward a counselor who has extended time and genuine attention to him. However, such feelings are not necessarily related to enduring therapeutic outcomes and evaluations of counseling but are likely to reflect the socially acceptable means of saying goodbye. Thus the post-test evaluation of counseling which was given at the time of termination may have reflected the "goodbye" effect rather than more enduring feelings. A post-test given a period of time after termination may have given the feelings of indebtedness and good-will a chance to dissipate and have provided a more accurate measure of the attitudes toward counseling.

Acceptance Versus Refused Treatment: Question IV

As was discussed earlier, it was thought that an exploration of the differences in performance between those subjects that accepted and those subjects that refused proffered counseling would be informative, even though differences in performance could not be attributed to the counseling treatments. It is important to learn what happens to low ability students of low income, minority group status who emphatically refuse the counseling offered to them. Analysis of the dependent measures indicates: (1) the mean GPA performance for the refused-treatment group is lower both winter and spring terms than their initial fall term performance, (2) the refused-treatment group shows less mean improvement on winter and spring term GPA's than does the combined treatment group although when the effect of the differences in the fall term GPA is partialled out, the resulting difference in GPA between the treatment and refused-treatment group is not significant, (3) although the refused treatment group earned fewer credits winter and spring terms than did the combined treatment group, the difference is not significant, (4) the refused-treatment group completed significantly fewer number of terms than the combined treatment group. Thus, it appears that as a group the subjects who refused treatment winter term performed less well academically during the winter and the spring terms than

they did during their initial fall term in college; and they exhibited less persistence than did the combined-treatment group. It therefore appears that the low ability student of low social-economic and minority group status who accepts counseling has a greater probability of success than the student who refuses proffered counseling, for whatever reason.

It is possible that counseling may have contributed to this difference between combined-treatment and refused-treatment groups. However, it cannot be concluded that the differences between the groups were attributable to the counseling treatment since the refused treatment group was not randomly selected or matched with the treatment group subjects, even though it came from the same population of students as the treatment group. The very act of refusing treatment distinguishes this group from the treatment group and may have introduced a bias which could account for the differences.

There are several cogent possibilities in addition to the effects of counseling that may have contributed to the differences between those accepting and those refusing counseling. The effect of attitudes and values toward learning, education, achievement, disciplined-intense study and the white middle class university system may have an effect on academic performance and persistance.

It may be that those subjects who accepted counseling were more open to change in their values and attitudes toward a college education, the university system and the development of learning skills. On the other hand, those subjects who refused proffered counseling also may have been more resistant to change in their values and attitudes.

Another factor which may have contributed to the difference between groups is that those subjects who refused counseling may also have failed to take advantage of other resources available to them in the university community. In order to succeed in the university, the low ability, low income, minority group student must take advantage of as many available resources as possible for coping with the new and complex university environment. Refusal of counseling may be symptomatic of the refusal of other coping resources.

It may also be that the student who refuses counseling, in addition to academic problems, has a greater number of personal problems. If so, these problems may reduce the amount of energy that is available for study and academic performance. Furthermore, counseling is apt to be perceived in a more threatening way by students with more personal problems. The threat of the counseling encounter to the student with personal problems may therefore lead to the avoidance of counseling.

Although it may not be true for each individual in the refused treatment group, it appears that the absolute refusal of counseling for the most part is not an adaptive response. The acceptance of counseling is more predictive of success, even though it cannot be concluded that counseling is the major force in producing the difference. Therefore, we need to focus additional research on the student who refuses counseling. Why does he refuse? What does the refusal mean? Are there particular personality characteristics associated with the refusal of counseling? For example, does the student refusing counseling have a greater tendency toward perceiving his success in the university as beyond his control, i.e., Rotter's (1954) external control dimension. A greater understanding of these variables may also prove helpful in improving selection and admission criteria. Refinement of selective criteria is important since it is potentially possible that the failure experience encountered by some of the students is more harmful than the benefits of the university experience. Indirect evidence in this regard is provided by the data which indicate that for those students decreasing in GPA there is a related decrease in self-esteem and an increase in psychological disturbance. Unfortunately it cannot be concluded whether poor academic performance resulted in poorer adjustment or whether adjustment problems resulted in poorer academic performance. Whatever the reason, the effects of failure experiences deserve further consideration.

Summary

The above discussion of results indicates that for the most part there are no significant differential effects in the academic performance, in the perceived change in structure, study skills, self-esteem and adjustment, and in the attitudes toward counseling of the subjects receiving the SBM treatment or the TIE treatment procedure. The finding of no difference occurs even though the subjects from the SBM treatment group report having experienced a significantly greater level of structure than subjects from the TIE treatment group. However, the subjects from the SBM treatment group attended a greater number of terms, attended a greater number of counseling sessions, and accepted the proffered counseling in greater numbers than did the subjects from the TIE treatment group. Only in this area of greater persistence and acceptance of counseling did the treatment groups appear to differ significantly.

It is also apparent, from the above discussion, that: (1) the GPA of the subjects in both treatment groups increased each succeeding term; (2) those subjects who increased in self-esteem also increased in GPA and showed less evidence of psychological disturbance; (3) the subjects from both groups viewed counseling positively and reported that they perceived it to be helpful; and (4) those subjects accepting proffered

counseling persisted significantly longer than those subjects who refused proffered counseling. One may speculate whether these developments were purely accidental or whether counseling per se, regardless of theory and methods, had an impact on the behavior of these subjects. What would have happened if the subjects had received no counseling contact? These questions lead to the obvious conclusion that future research will need to include a no-contact control group of subjects drawn from the same population as the treatment group in order to delineate the effect of counseling on the success of low ability students of low income, minority group status.

Suggestions for Future Counseling Programs

Many crash programs for educationally disadvantaged students are apt to begin in the near future or have already begun. Counseling of one sort or another is quite apt to be a crucial part of some of these programs. The following section is an attempt to present a number of suggestions for future counseling programs which have developed from involvement with the present counseling program and from relevant literature. Most of these suggestions are not profound but appear to hold some promise for increased effectiveness of counseling. The suggestions will be discussed under two major categories: (1) changes in the present structured behavior modification

counseling approach, and (2) additional counseling approaches and techniques.

Changes in the SBM Counseling Approach

It is possible that the effectiveness of the SBM counseling approach can be enhanced by several modifications. It appears that future counseling programs would do well to consider ways in which commitment toward change may be enhanced. One approach might be to use testimonials as a means of arousing anticipation of success. The counselor could relate to the individual his experiences that he has previously had with clients who responded successfully to the use of the behavioral techniques. It might also be possible to arrange for the subject to meet and talk with someone who has previously tried the techniques and found them to be successful. The counselor might also convey to the subject that the learning theory approach offers effective ways of changing behavior that the subjets own attempts had failed to change in the past (Goldstein, Heller and Sechrest, 1966, pp. 245-250). It may prove helpful to challenge some counselees, i.e., to appeal to their stubbornness and determination to carry out difficult assignments.

It is also possible that commitment to one's goals for change may be enhanced by producing something each week for the counselor. The keeping of various

records might be used to greater advantage in this regard. When behavior is recorded on paper, it becomes increasingly difficult to deny the lack of commitment to carrying out the behavioral change procedures. Furthermore, records become a means of both positive and negative reinforcement. As progress, such as increased time spent in study and improved grades, shows up in the records the positive reinforcement is obvious. On the other hand, if the grades, the amount of study time, etc. are decreasing, the reinforcement would be negative and require that the counselor and counselee immediately focus on the problem and attempt to change and reverse the trend. Records also serve as a constant reminder to the individual of the therapeutic program. Greater attention could be paid to the development of clear and concise record keeping tables for use in future counseling approaches.

Finally, the more immediate the positive reinforcements received by the subject, the greater his commitment to the approach. More attention should be devoted to developing ways for increasing immediate positive reinforcement in the SBM approach. Some suggestions in this regard are made in the following paragraphs.

The effectiveness of the SBM treatment may also be enhanced by devoting greater attention to bringing

about change as quickly as possible in a small area of behavior related to study and academic performance. Examples include establishing a 15 to 30 minute study period three afternoons a week during a two hour period that has usually been wasted, focusing attention on an immediate small quiz, and increasing concentration and attention during a 15 to 30 minute study period. It is important to pick some behavior that has a high probability of success because of the immediate reinforcing value of success. If the subject is given an early experience of success over a miniature replica of the desired behavior then reinforcement is being provided immediately and the feeling of progress is being communicated to the subject. It is very important for the counselor to be accessible to the client during this period to insure the successfulness of the attempted change.

It is also suggested that the counseling sessions be more frequent at the beginning of treatment and then become less frequent as the counseling proceeds. The reason for this approach is that mass sessions at the beginning permit learning to occur most efficiently. Mass sessions at the beginning of treatment also increase the counselor's opportunity for monitoring the student's performance and for providing increased likelihood for early change. The close monitoring is

especially important in order to insure immediate success in the initial behavior change attempt. The values of immediate success have been emphasized by a number of researchers (Homme, 1965; Stuart, 1967). It is quite evident that if the subject does not get reinforced for the changes he makes, extinction may occur quite rapidly.

The SBM treatment as outlined in this study made primary use of operant conditioning techniques. Homme (1965) has presented an approach for the self-reinforcement of subjective internal mental states, called coverants, which he has found to be effective in the self-control of smoking behavior, weight loss, stuttering and self-concept change. The use of coverant conditioning may also be a useful technique that can be incorporated into the structured, behavior modification approach and thereby enhance the effectiveness of this approach. The technology of coverant conditioning is intimately related to the operation of the Premack principle which states "of any two responses the more probable response will reinforce the less probable one" (Homme, 1965). Using the Premack principle, a reinforcer can be identified for every response.

When applied to study behavior, the rationale of Homme's approach is to increase the frequency of pre-study thoughts which then compete with and replace

aversive thoughts about study. First, an inventory is made, listing the positive reasons why a person should study. Then the subject is required to think about a particular reason for studying before a high probability behavior occurs. A "high probability behavior" is a free operant response which occurs with high frequency and which by implication is positively reinforcing. For some individuals, activities such as reading, talking to friends on the telephone, watching television, reading the newspaper, going to the grill or playing cards are readily available. Imagery may also be used as a coverant response. The subject is asked to picture himself pleasurably studying and learning before permitting high probability behaviors to occur.

The rationale involved in using Homme's approach is that thoughts about a particular response approximate that response. For example, positive sexual thoughts or fantasies generally occur before the actual sexual behavior occurs. These subjective responses enhance the probability of the overt response occurring. In the same way, it is hypothesized that frequent pleasant thoughts about studying, instead of adverse thoughts, enhance and increase the probability that studying behavior itself will occur.

Finally, it may be that in future applications of the structured behavior modification counseling approach it will be important to distinguish between mildly resistant and highly resistant subjects. It may be that the techniques described in this study will not work with intensely angry and resistant subjects. Additional research is needed on this particular aspect.

Additional Counseling Approaches and Techniques

Up to this point, the focus of this discussion has been on the one-to-one counseling approach. There are other counseling approaches that appear to offer advantages not available in the one-to-one relationship. Two possibilities will be discussed in this section: (1) group counseling, and (2) a college level class offered for credit which would include a focus on the counselee's attitudes, values and study habits, a discussion of Negro history and cultural contributions, and special discussions with minority group leaders from the political, professional, education, and business world.

Group counseling approaches apparently offer several special advantages not found in the one-to-one relationship in addition to the commonly chronicled advantages such as more efficient use of counselor time, learning from shared problems, etc. It appears that group counseling techniques can be used with resistant

clients by bringing peer pressure to bear on certain problems. For example, greater commitment to academic achievement for some resistant clients may be obtained by the pressures of the group towards performing at a high level. To the extent that the group values high academic performance and a particular subject values the group, the group may bring pressures to bear on that subject toward achieving high academic performance (Cartwright and Zander, 1960).

Literature is also beginning to accumulate which emphasizes the important role that adult and peer models can play in the transmission of self-control, self-reinforcing and self-evaluative behavior. Reviews of these studies are found in Bandura, Grusec and Menlove (1967), and Krumboltz, Varenhorst and Thorensen (1967). Group procedures offer special opportunities for the use of peer models to transmit desirable study habits and academic performance behavior. One approach with a great deal of potential is to use successful, low ability, low income, minority group students from previous special programs as models for the newly admitted "educationally-disadvantaged" students. For example, a successful student could be used as a co-leader with a trained counselor in a group counseling situation. As research suggests (Krumboltz, Varenhorst and Thorensen, 1967), these students should be successful academically and have high but realistic academic self-standards which can be modeled

by the other group members. Other possibilities would be to set up combined groups of new students and advanced successful students to talk about the problems of "making it" at the university and adjusting to the academic standards of the university. Successful students from previous counseling programs could also serve as big brothers or big sisters for incoming groups of low ability, low income, minority students.

Winter, Griffith and Kolb (1968) recently reported on a self-change method using group procedures which appears to have potential for group counseling with resistant clients. Their self-change method gives the individual the responsibility for diagnosing his own problems, setting his own goals for change, and accomplishing change by his own efforts. First, the procedure involves a discussion by group leaders of the factors influencing behavior change followed by the presentation of individual case studies of self directed change. The group members then spend several group meetings considering and discussing possible change goals. Each person then actually selects a goal and the way of measuring his progress toward that goal. Progress toward the goal is rated after each successive session. In addition, group members are encouraged to give one another feedback on the progress they are making. Although the study of Winter, Griffith and Kolb was concerned with

personal change, this approach may be applied to the development of academic self-change goals as well. One very important implication of this self-change method is that it reinforces the individual's dignity and independence which are often threatened by individual counseling approaches. If an individual is permitted to form his own goal, the method, and the means of recording his change, he may respond to the counseling situation with less resistance.

A college level class for credit designed to be relevant to the unique needs of the low ability, low income, minority group student appears to offer several additional special advantages. First, a special course would get away from the counseling context and all that is implied by that context. A classroom context might reduce the level of resistance to the point that the highly angry and resistant subject could profit from such a course. It is also possible that a college level course could incorporate much of what has been discussed above regarding the development of appropriate academic behavior. The class could focus on the attitudes and values of the individual that interfere with his success at the university but without the connotations and implications associated with counseling. A thorough discussion of and attempt to develop the coping skills needed to succeed in the middle class university

environment could also be accomplished in the classroom. The course could also be used to provide an outlet for the development of immediate relevant areas of concern to the student such as Negro history, black power, integration versus segregation, community development, etc. Finally, such a class could be used to expose the student to prominent political, professional, educational and business leaders with poor and minority backgrounds.

It is possible that an integration of the one-to-one counseling relationship, the group counseling approach and the classroom experience focused on the unique problems of the low income, minority student could be used to meet the particular needs of individual students at particular points in their college program. A great deal more research and experience is needed.

Summary

As is evident to the reader by now, the tone of the above discussion is highly speculative. There is also a notable lack of research to support many of the suggestions that are made. The area of higher education for educationally disadvantaged, minority youth is still new and largely unresearched in the predominately white middle class universities. It is obvious that a great deal of research is needed in order to quantify the relative effectiveness or ineffectiveness of counseling with low income, low ability, minority group students.

At this point, most of the higher education programs are so new that research has not yet begun to reach the journals. However, one wonders if the higher education programs which are being developed and utilized at the predominately white universities across the country are as new as they seem. The "black" universities have been in the business of educating "educationally-disadvantaged" minority students for many decades. One wonders how much experiential knowledge and data is being overlooked from these institutions.

Further Research

The discussion section to this point has been replete with suggestions and possibilities for further research. It is quite evident that the area of higher education for "educationally-disadvantaged" students has received little research attention. It is necessary that additional research be conducted to demonstrate whether counseling increases the ultimate success of the educationally disadvantaged student in the university. If it can be shown that counseling has a facilitating effect on the low ability, low income, minority group student, then it becomes essential that additional research be carried out to determine what aspects of counseling are most effective so that the effectiveness and efficiency of counseling can be increased. What follows is a summary of some basic additional research that will be

needed in order to further clarify and expand upon the findings and implications of this study.

1. Replication of the study with a true control group. The most important first step for further research is to conduct a study to determine whether counseling per se is useful and effective in improving the success rates of educationally disadvantaged college students. To test out the effectiveness of counseling, it will be necessary to include a true control group of subjects drawn from the same population as those given treatment but receiving no counseling contact. Another way of stating this research problem is to determine if a one year grace period is as effective as a one year treatment period in bringing about the academic success of the low ability, low income, minority group student.
2. Comparison of the relative effectiveness of the structured, behavior modification treatment, the traditional verbal expressive counseling treatment, the group counseling treatment and the specialized classroom experience, as discussed above.
3. Replication of study with reduced variances among treatment groups. Variance could be reduced by pre-grouping subjects according

to pertinent variables such as ability, level of resistance to counseling, hostility toward counseling, etc.

4. Research to determine the most important factors which interfere with effective academic performance. Possible factors discussed above include values and attitudes, coping skills, cultural shock, level of learning skills, study habits, study skills, ability level and feelings of internal versus external control. It will then be necessary to develop the means of changing or minimizing the impact of the most debilitating factors.

Limitations of the Study

One of the major limitations on the conclusions that can be drawn from the study is the shortness of the treatment period. Six weeks would be considered short by almost any theoretical position on counseling, even by behavior modification standards. Although it can be concluded that there were no significant differences between the counseling treatments on the academic performance measures with the short treatment period, it cannot be concluded that there were no differences between counseling treatments given a longer treatment period. Therefore, replication of the study with a longer

treatment period will be needed in order to generalize the findings to more typical counseling situations.

It is also important to note that the study was carried out on low income, minority students with low ability as measured by the College Qualification Test. Therefore, it should be noted that the findings of this study may not hold for brighter, low income, minority students. Ability level may serve as an important determining factor in the results of the study. Therefore, the findings of this study should only be generalized to other projects with low income, minority group students of low ability.

A potential source of error variance which may have had a restricting influence on the findings of the study results from the use of the GPA as a gross performance measure. The overall GPA for each term was used to assess changes in academic performance. Therefore, it was assumed that the differences in majors, the difficulty of course material, the number of courses repeated and the number of credits carried each term were randomly distributed over each of the groups. However, this may not have been the case. To the extent that differences were not randomly distributed across groups, then confounding effects of these differences will have influenced the results. It is suggested that in future research a more controlled study would result if the groups were also controlled on performance level. Controlling for

performance level could be accomplished by selecting one course which all subjects had to take and would continue to take the following term and match subjects on the basis of their pre-treatment performance on this one course. For example, a basic college course such as English or Natural Science which all subjects take could be used as a measure of academic performance.

Other potential confounding factors which place limits on the findings of the study are the differences in the experience level of the counselors and the case load of the counselors. Although an attempt was made to control for differing levels of counselor experience by assigning counselors of approximately equal experience to the two different treatment approaches, it is possible that the match was not completely obtained. Further research with larger samples will be needed to check for the effect of differing levels of experience on the effectiveness of counseling.

It is also possible that the difference in counselor case loads could have had a biasing effect on the data. For example, those counselors carrying fewer counselees could have devoted more energy to them, thereby creating differences in the effectiveness of counseling. It is also possible that those counselors who carried more subjects might have learned more rapidly about their counseling abilities with minority counselees, thereby

creating differences in the effectiveness of counseling. In this regard, future research should also attempt to distribute a more equal case load among the counselors.

BIBLIOGRAPHY

BIBLIOGRAPHY

Allen, B. V. Behavior modification of study habits of "educationally-disadvantaged" students. Paper read at California State Psychological Association, San Francisco, 1966.

Bandura, A. Social learning through imitation. In M. R. Jones (Ed.), Nebraska Symposium on Motivation: 1962. Lincoln: University of Nebraska Press, 1962, pp. 211-215.

Bandura, A., Grusec, J. E. and Menlove, F. L. Some social determinants of self-monitoring reinforcement systems. Journal of Personality and Social Psychology, 1967, 5, 449-455.

Bandura, A., Ross, D., and Ross, S. A. A comparative test of the status envy, social power, and secondary reinforcement theories of identificatory learning. Journal of Abnormal and Social Psychology, 1963, 67, 527-534.

Bandura, A. and Walters, R. H. Social Learning and Personality Development. New York: Rinehart and Winston, 1963.

Batawi, S. The differential effects of two therapeutic techniques on selected aspects of client behavior. Unpublished doctoral dissertation, George Washington University, 1964.

Bennett, G., Bennett, M., Wallace, W. and Wesman, A. College Qualification Tests Manual. New York: The Psychological Corporation, 1961.

Borow, H. Manual for the College Inventory of Academic Adjustment. Palo Alto: Stanford University Press and Consulting Psychology Press, 1949.

Burgess, E. Personality in over- and under-achievers in engineering. Unpublished doctoral dissertation, Pennsylvania State University, 1953.

Campbell, D. T. and Stanley, J. C. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally and Co., 1963.

Carkhuff, R. R., and Berenson, B. G. Beyond Counseling and Therapy. New York: Holt, 1967.

Carlson, J. S. and Wegner, K. W. College dropouts. Phi Delta Kappan, March, 1965.

Centi, P. Highest and lowest ranking students at the school of education of a large urban university. Personnel and Guidance Journal, 1959, 37, 477-479.

Chestnut, W. J. The effects of structured and unstructured group counseling on male college students' underachievement. Journal of Counseling Psychology, 1965, 12, 388-394.

Cohen, H. L., Filipczak, J. A. and Bis, J. S. Educational therapy: the design of learning environments. In J. B. Shlien (Ed.), Research in Psychotherapy: Volume III. Washington: American Psychological Association, 1968, pp. 22-53.

DeSena, P. The effectiveness of two study habits inventories in predicting consistent over-, under- and normal achievement in college. Journal of Counseling Psychology, 1964, 11, 388-93.

Edwards, A. L. Statistical Methods. New York: Holt, 1962.

Emery, J. R. and Krumboltz, J. D. Standard versus individualized hierarchies in desensitization to reduce test anxiety. Journal of Counseling Psychology, 1967, 14, 204-209.

Eysenck, H. J. (Ed.). Behavior Therapy and the Neuroses. New York: Pergamon Press, 1960.

Ferster, C. B. and DeMyer, M. K. A method for the experimental analysis of the behavior of autistic children. American Journal of Orthopsychiatry, 1962, 32, 89-98.

Fiedler, F. E. A comparison of therapeutic relationships in psychoanalytic, nondirective and Adlerian therapy. Journal of Consulting Psychology, 1959, 14, 436-445.

Fitts, W. H. Tennessee Self Concept Scale, Manual. Nashville: Counselor Recordings and Tests, 1965.

Fox, Ljungberg. Effecting the use of efficient study habits. In Ulrich, R., Stachnic, T., and Mabry, J. (Eds.). Control of Human Behavior. Glenview, Illinois: Scott, Foresman and Company, 1966, pp. 85-90.

Garlington, W. K., and Cotler, S. B. Systematic desensitization of test anxiety. Behavior Research and Therapy, 1968, 6, 247-256.

Gelso, C. and Rowell, O. Academic adjustment and marginal students. Journal of Counseling Psychology, 1967, 14, 478-481.

Gilbreath, S. H. Group counseling, dependence, and college male underachievement. Journal of Counseling Psychology, 1967, 14, 449-453.

Goldiamond, I. Self-control procedures in personal behavior problems. Psycho 'l Reports, 1965, 17, 851-868.

Goldstein, A. P., Heller, K., and Sechrest, L. B. Psychotherapy and the Psychology of Behavior Change. New York: John Wiley and Sons, 1966.

Guildord, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill, 1956.

Harleston, B. W. Higher education for the Negro. Atlantic Monthly, November, 1965.

Hathaway, S. R. Some considerations relative to nondirective counseling as therapy. In A. H. Brayfield, (Ed.), Readings in Modern Methods of Counseling. New York: Appleton-Century-Crofts, 1950, pp. 447-455.

Hays, William L. Statistics for Psychologists. New York: Holt, Rinehart and Winston, 1963.

Hitch, C. J. Campus response to the urban crisis. Campus Newsletter, November, 1967.

Homme, L. E., DeBacca, P. C., Devine, T. V., Steinhorst, R., and Richert, E. J. Use of the Premack principle in controlling the behavior of nursery school children. Journal of Experimental Analysis of Behavior, 1963, 6, 544.

Homme, L. E. Perspectives in psychology: XXIV control of coverants, the operants of the mind. Psychological Record, 1965, 15, 501-511.

Isaacs, W., Thomas, J. and Goldiamond, I. Application of operant conditioning to reinstate verbal behavior in psychotics. Journal of Speech and Hearing Disorders, 1960, 25, 8-12.

John Lindsay's ten plagues, Time, Vol. 92, No. 18, November 1, 1968, 20-29.

Johnson, S. M. The effects of desensitization and relaxation in the treatment of test anxiety. Unpublished master's thesis, Northwestern University, 1966.

Kalahn, M., Strenger, S., and Cherry, N. Group counseling and behavior therapy with test anxious college students. Journal of Consulting Psychology, 1966, 30, 544-549.

King, G. F., Armitage, S. G. and Tilton, J. R. A therapeutic approach to schizophrenics of extreme pathology: an operant-interpersonal method. Journal of Abnormal and Social Psychology, 1960, 61, 276-286.

Kolb, D. A., Winter, S. K. and Berlew, D. E. Self-directed change: two studies. Journal of Applied Behavior Science, in press.

Krasner, L., and Ullmann, L. P. Research in Behavior Modification. New York: Holt, 1965.

Krumboltz, J. D., Varenhorst, B. B. and Thorensen, C. E. Nonverbal factors in the effectiveness of models in counseling. Journal of Counseling Psychology, 1967, 14, 412-418.

Lefcourt, H. M. Risk-taking in Negro and white adults. Journal of Personality and Social Psychology, 1965, 2, 765-770.

Lefcourt, H. M., and Ladwig, G. W. The effect of reference group upon Negroes' task persistence in a biracial competitive game. Journal of Personality and Social Psychology, 1965, 1, 668-671.

London, P. The Modes and Morals of Psychotherapy. New York: Holt, Rinehart and Winston, Inc., 1964.

Major share of helping low-achieving students will fall on junior colleges. University Bulletin, University of California, Davis, Vol. 17, No. 6, 1968, 1.

McCollum, J. A. Improvement of achievement and attitudes of minority group children. California Elementary Administrator, 1961, 24, 4-8.

Meichenbaum, D. H., Bowers, K. S., and Ross, R. R. Modification of classroom behavior of institutionalized female adolescent offenders. Behavior Research and Therapy, 1968, 6, 343-353.

O'Leary, K. D. and Becker, W. C. Behavior modification of an adjustment class: a token reinforcement program. Unpublished manuscript, University of Illinois, 1967.

Patterson, G. R., Jones, J. W., Whittier, J., and Wright, M. A. A behavior modification technique for the hyperactive child. Behavior Research and Therapy, 1965, 2, 217-226.

Paul, G. L. Modifications of systematic desensitization based on case study. Paper presented at Western Psychological Association, Portland, Oregon, April, 1964.

Paul, G. L. Insight vs. Desensitization in Psychotherapy. Stanford, California: Stanford University Press, 1966.

Paul, G. L. Insight vs. desensitization in psychotherapy two years after termination. Journal of Consulting Psychology, 1967, 31, 333-348.

Paul, G. L. Outcome of systematic desensitization II: controlled investigations of individual treatment, technique variations, and current status. In C. M. Franks (Ed.), Assessment and Status of the Behavior Therapies and Associated Developments. New York: McGraw-Hill (in press).

Perry, H. S., and Garvel, M. L. The Collected Works of Harry Stack Sullivan. New York: W. W. Norton, 1953. 2 vols.

Phillips, E. L., and Wiener, D. N. Short-term Psychotherapy and Structured Behavior Change. New York: McGraw-Hill, 1966.

Premack, D. Reinforcement theory. In D. Levine (Ed.), Nebraska Symposium on Motivation. Lincoln: University of Nebraska Press, 1965, p. 132.

Proceedings of the Research Conference on College Drop-outs. Cooperative Research Project Number F-065. University of Tennessee, August, 1964.

Quay, H. C., Werry, J. S., McQueen, M., and Sprague, R. L. Remediation of the conduct problem child in the special class setting. Exceptional Child, 1966, 32, 509-515.

Redl, F., and Wineman, D. The Aggressive Child. Glencoe: The Free Press, 1957.

Robinson, F. P. Effective Study. New York: Harper and Brothers, 1961.

Rogers, C. R. Client Center Therapy. Boston: Houghton Mifflin, 1951.

Rogers, C. R. A theory of therapy, personality and interpersonal relationships, as developed in the client centered framework. In S. Koch (Ed.), Psychology: A Study of a Science. Vol. 3. Formulations of the person and the social context. New York: McGraw-Hill, 1959, pp. 184-258.

Rogers, C. R., and Dyamond, R. F. Psychotherapy and Personality Change. Chicago: University of Chicago Press, 1954.

Rogers, C. R., Gendlin, E. T., Kiessler, D., and Truax, C. B. The Therapeutic Relationship and Its Impact: A Study of Psychotherapy with Schizophrenics. Madison, Wisconsin: University of Wisconsin Press, 1967.

Rosenberg, M. The association between self-esteem and anxiety. Journal of Psychiatric Research, 1962, 1, 135-152.

Rotter, J. B. Social Learning and Clinical Psychology. Englewood Cliffs, New Jersey: Prentice-Hall, 1954.

Schofield, W. Psychotherapy: The Purchase of Friendship. Englewood Cliffs, New Jersey: Prentice-Hall, 1964.

Schwitzgebel, R., and Kolb, D. A. Inducing behavior change in adolescent delinquents. Behavior Research and Therapy, 1964, 1, 297-304.

Schwitzgebel, R., and Schwitzgebel, R. Reduction of adolescent crime by a research method. Journal of Social Therapy, 1961, 7, 212-215.

Sechrest, L. B., and Strowig, R. W. Teaching machines and the individual learner. Educational Theory, 1962, 12, 157-169.

Skinner, B. F. Science and Human Behavior. New York: Macmilan, 1953.

Slack, C. W. Experimenter-subject psychotherapy: a new method of introducing intensive office treatment for unreachable cases. Mental Hygiene, 1960, 44, 238-256.

Stampfl, T. G., and Levis, D. J. The essentials of implosive therapy: a learning theory based on psychodynamic behavioral therapy. Unpublished manuscript, John Carroll University, 1967.

Stein, K. B., Sarbin, T. R., and Kulik, J. A. Future time perspective: its relation to the socialization process and the delinquent role. Journal of Consulting and Clinical Psychology, 1968, 32, 257-264.

Stollak, G. E., and Guerney, B., Jr. Exploration of personal problems by juvenile delinquents under conditions of minimal reinforcement. Journal of Clinical Psychology, 1964, 20, 279-283.

Stuart, R. B. Behavioral control of overeating. Behavior Research and Therapy, 1967, 5, 357-365.

Suinn, R. M. The desensitization of test-anxiety by group and individual treatment. Behavior Research and Therapy, 1968, 6, 385-388.

Sullivan, H. S. The Interpersonal Theory of Psychiatry. New York: Norton, 1953.

Sullivan, H. S. The Psychiatric Interview. New York: Norton, 1954.

Truax, C. B., and Carkhuff, R. R. Toward Effective Counseling and Psychotherapy: Training and Practice. Chicago: Aldine Publishers, 1967.

Ullmann, L. P., and Krasner, L. Case Studies in Behavior Modification. New York: Holt, 1965.

Walsh, A. M. Self-Concepts of Bright Boys with Learning Difficulties. Teachers College, 1956.

Weber, R. E. Higher education and the student of low-income and minority groups status. Washington, March 14, 1968. (Mimeographed.)

Winer, B. J. Statistical Principles in Experimental Design. New York: McGraw-Hill, 1962.

Winter, S. K., Griffith, J. C., and Kolb, D. A. Capacity for self-direction. Journal of Consulting and Clinical Psychology, 1968, 32, 35-41.

Wolpe, J. Psychotherapy by Reciprocal Inhibition. Stanford, California: Stanford University Press, 1958.

Wolpe, J. The systematic desensitization treatment of neurosis. Journal of Nervous and Mental Disorders, 1961, 112, 189-203.

APPENDICES

APPENDIX A

INSTRUMENT

Counselor Behavior and Relationship Questionnaire

Perception of Treatment Approach Subscale Items

Perception of Counselor Involvement Subscale Items

Perception of Counseling Relationship and Process Items

COUNSELOR BEHAVIOR AND RELATIONSHIP QUESTIONNAIRE

The purpose of this questionnaire is to get some feedback on your feelings about your counselor and the interviews you have had with him this term. The following are a number of statements that describe a variety of ways your counselor may have felt or acted toward you or you may have felt or acted toward him. Consider each statement carefully and decide whether it is true or false when applied to your present relationship with your counselor. If the statement seems to be mostly true, then circle "T"; if it is mostly not true, then circle "F".

1. T F He attempted to explain the reasons behind the help he offered.

2. T F He usually is not very interested in what I have to say.

3. T F He didn't seem to have any particular purpose in mind in counseling with me.

4. T F I can learn a lot about myself from talking with him.

5. T F I can usually count on him to tell me what he really thinks or feels.

6. T F He offered specific suggestions about ways to handle study problems.

7. T F Whether I am talking about "good" or "bad" feelings seems to make no real difference in the way he feels toward me.

8. T F He often misunderstands what I am trying to say.

9. T F He makes me feel like a guinea pig or some kind of animal.

10. T F He rarely had anything specific he wanted to talk to me about.

11. T F I feel that he really thinks I am worthwhile.

12. T F He suggested that I try specific new ways to scheduling my time.

13. T F I often cannot understand what he is trying to tell me.

14. T F He pretends that he likes me more than he really does.

15. T F He was more concerned with how I was doing than with how I was feeling.

16. T F He is curious about what makes me act like I do, but he is not really interested in me.

17. T F He helps me know myself better by sometimes pointing to feelings within me that I had been unaware of.

18. T F I am just another student to him.

19. T F He let me talk about anything I wanted to.

20. T F He appreciates me.

21. T F He uses the same words over and over again, until I am bored.

22. T F He assigned tasks for me to do.

23. T F He is a very sincere person.

24. T F He gives me so much advice I sometimes think he is trying to live my life for me.

25. T F He encouraged me to carry out various different ways to study.

26. T F He understands exactly how I see things.

27. T F He seems like a real person, instead of just a counselor.

28. T F He was more concerned with how I felt than with how I performed.

Check the category which best describes your feelings about the following statements.

29. How much do you feel your counselor wanted to help you?

_____Very much
_____Quite a bit
_____Some
_____A little
_____Not at all

30. How concerned do you feel your counselor was about how well you were doing this term?

_____Very concerned
_____Quite concerned
_____Somewhat concerned
_____A little concerned
_____Not at all concerned

31. How much did you think your counselor liked you?

_____Very much
_____Quite a bit
_____Some
_____A little
_____Not at all

32. How much do you feel your counselor was involved with you as a person?

_____Very involved
_____Quite involved
_____Somewhat involved
_____A little involved
_____Not involved at all

33. Do you feel your counselor helped you?

_____Very much
_____Quite a bit
_____Some
_____Very little
_____Not at all

34. How much do you feel your counselor was interested in you?

_____Very interested
_____Quite interested
_____Somewhat interested
_____A little interested
_____Not at all interested

35. How much did you enjoy the relationship you had with your counselor this term?

_____Very much
_____Quite a bit
_____Some
_____A little
_____Not at all

36. Would you have preferred a Negro counselor?

_____Yes
_____No
_____Makes no difference

37. How much did you like your counselor this term?

_____Very much
_____Quite a bit
_____Some
_____Very little
_____Not at all

38. If the kind of help you received this term were to continue next term would you want to continue?

_____Definitely
_____Probably
_____Maybe
_____Don't know
_____No

PERCEPTION OF TREATMENT APPROACH

Subscale Items

1.	T*	F	He attempted to explain the reasons behind the help he offered.
3.	T	F*	He didn't seem to have any particular purpose in mind in counseling with me.
6.	T*	F	He offered specific suggestions about ways to handle study problems.
10.	T	F*	He rarely had anything specific he wanted to talk to me about.
12.	T*	F	He suggested that I try specific new ways to scheduling my time.
15.	T*	F	He was more concerned with how I was doing than with how I was feeling.
19.	T	F*	He let me talk about anything I wanted to.
22.	T*	F	He assigned tasks for me to do.
25.	T*	F	He encouraged me to carry out various different ways to study.
28.	T	F*	He was more concerned with how I felt than with how I performed.

*Items were keyed so that a high score indicated counselees' perception of highly structured, behavior modification procedures. Those items answered in the direction marked by an asterisk were assigned one point.

PERCEPTION OF COUNSELOR INVOLVEMENT

Subscale Items

29. How much do you feel your counselor wanted to help you?

_____Very much
_____Quite a bit
_____Some
_____A little
_____Not at all

30. How concerned do you feel your counselor was about how well you were doing this term?

_____Very concerned
_____Quite concerned
_____Somewhat concerned
_____A little concerned
_____Not at all concerned

32. How much do you feel your counselor was involved with you as a person?

_____Very involved
_____Quite involved
_____Somewhat involved
_____A little involved
_____Not involved at all

34. How much do you feel your counselor was interested in you?

_____Very interested
_____Quite interested
_____Somewhat interested
_____A little interested
_____Not at all interested

PERCEPTION OF COUNSELING PROCESS

AND RELATIONSHIP ITEMS

31. How much did you think your counselor liked you?

_____Very much
_____Quite a bit
_____A little
_____Not at all

33. Do you feel your counselor helped you?

_____Very much
_____Quite a bit
_____Some
_____Very little
_____Not at all

35. How much did you enjoy the relationship you had with your counselor this term?

_____Very much
_____Quite a bit
_____Some
_____A little
_____Not at all

36. Would you have preferred a Negro counselor?

_____Yes
_____No
_____Makes no difference

37. How much did you like your counselor this term?

_____Very much
_____Quite a bit
_____Some
_____Very little
_____Not at all

38. If the kind of help you received this term were to continue next term would you want to continue?

_____Definitely
_____Probably
_____Maybe
_____Don't know
_____No

APPENDIX B

TREATMENT PROCEDURES

TREATMENT PROCEDURES

Introduction

Included in this appendix is a basic outline guiding the structured, behavior modification procedure and the traditional, insight-expressive procedure. In order to facilitate a clearer discussion of the basic differences in the two procedures, an outline will be followed in presenting both approaches. The outline includes the following:

1. Goals
2. Means of achieving the goals (process of change rather than techniques)
3. Relationship
   a. Role of client
   b. Role of counselor
4. Specific techniques
5. Session by session procedures

The Traditional, Insight-Expressive Treatment Approach

The TIE treatment approach used by the counselors in this research study drew heavily on the interpersonal relationship theories as put forth by Rogers (1951, 1954, and 1959), Sullivan (1953, 1954), and Truax and

Carkhuff (1967). An emphasis was placed on the later developments of Rogers as discussed by himself (1959, 1967) and by his students and colleagues (Truax and Carkhuff, 1967; Carkhuff and Berenson, 1967).

Goals

The overall goal of the TIE treatment approach, as in the case of the SBM approach, is to facilitate the development of the individual to the level of a successfully functioning college student. However, beyond this overall goal, the sub-goals of each procedure differ. The TIE counselor encourages and allows the counselee to determine the specific goals of counseling. In a sense, the goal is to encourage the "self-actualizing" tendency of the student. The goal of counseling is to bring about changes in the ways in which the person attends to, thinks about, and thoughtfully evaluates himself and the world around him. In a sense, the purpose of therapy is to help the individual to become aware of all the events influencing him and to help him use more freely his capacities for conscious thought in solving his problems. Counseling only starts this process.

Means of Achieving Goals

The means of achieving the goals refers to a descriptive discussion of the change process rather than a discussion of the specific techniques for

bringing about change. The TIE process of change is built on two central theorems. First is the assumption that the individual has the capacity to both understand those factors interfering with successful functioning and to reorganize his self-structure to overcome them. Second, given a therapeutic relationship of warm acceptance and understanding, the individual's inherent capacities for change will be released (Rogers, 1951, pp. 66-74).

> The process of therapy which follows is one by which the structure of the client's self is relaxed in the safety and security of the relationship with the therapist, previously denied experiences are perceived, and by means of a verbal, symbolic analysis, integrated into an altered self (Carkhuff and Berenson, 1967, p. 64).

Thus the focus of the TIE treatment approach is on facilitating the awareness and experience of feelings for the purpose of bringing about change in phenomenological states with the expectation that these changes will facilitate the behavioral functioning of the counselee, i.e., a successfully functioning college student.

Relationship

In the TIE treatment approach the counseling relationship takes on primary importance. It is viewed as a primary source of change. Early efforts of the TIE counselor are geared toward establishing a

relationship based on trust and security. The importance of the relationship in the TIE procedure is evidenced by the basic assumption of this approach that the individual has inherent in himself the capacity to change if provided with the "right" relationship (Rogers, 1951). Such a relationship is apt to exist when a congruent counselor (Rogers, 1967) exhibits empathetic understanding, positive regard, genuine and concrete behaviors (Truax and Carkhuff, 1967).

Role of Counselee

The role of the counselee in the TIE treatment approach might be described as that of "self-explorer." The client is given the primary responsibility for initiating and pursuing the content and the extent of personal discussion.

Role of Counselor

The TIE counselor's role is primarily that of facilitator. His major responsibility is that of creating a therapeutic atmosphere conducive to client self-exploration and change. The type of relationship required to provide the "therapeutic atmosphere" was discussed above. The TIE counseling approach emphasizes the congruence, non-possessive warmth, empathetic understanding, and genuineness of the counselor. The counselor is not restricted to a reflective one way relationship but in

a congruent and genuine way uses himself as a stimulus to facilitate therapeutic change (Rogers, 1957, 1967; Sullivan, 1964).

Specific Techniques

The role of diagnosis in the TIE counseling procedure is not emphasized. Diagnosis carries with it the connotation of control which in turn violates the ethic of self-determinism (Rogers, 1951). The specific techniques employed by the TIE counselor include the well-known techniques of counselor reflection, clarification, summarization, and reformulation of client expressions. These techniques have been clearly presented and discussed by Rogers (1951) and will not be expanded upon here. In a sense, TIE counselor behaviors of empathetic understanding, positive regard, genuineness, concreteness and congruence as emphasized by Roger's later writings (1959, 1967) and by Truax and Carkhuff (1967) are techniques, since these behaviors are designed to elicit certain behaviors and changes in the client. In addition, as Sullivan (1953, 1954) has discussed at some length, the TIE counselor makes use of the therapeutic relationship as a means of teaching the patient about interpersonal functioning in general. Since the therapeutic relationship is in fact an interpersonal relationship, the feelings and experiences generated by this interaction are used by the TIE counselor to increase the Ss' understanding of his own behavior and

feelings. It is assumed that the learning that takes place in the therapeutic relationship will generalize to other relationships. Finally, when the TIE counselor encourages and permits the counselee to choose his own goals he is employing technique in that it requires the counselee to trust in this own judgment and inner experience.

Session by Session Procedures

Specific procedures for each of the six individual sessions were not outlined for the TIE treatment since such an outline would violate several of the basic assumptions of this approach. For example, it would violate the assumption that the client has an inherent capacity for self-actualization given a proper therapeutic environment. In addition, to structure, each session would take the responsibility for initiating and directing the content and extent of self-exploration away from the counselee. Thus the content of the individual counseling sessions and the course of the counseling process is left to the discretion of the individual client and counselor.

The Structured, Behavior Modification Treatment Approach

The structured, behavior modification procedure draws most heavily on the instrumental learning theory

of Skinner (1953) as put forth by Phillips and Wiener (1966), Ullmann and Krasner (1965), Bandura (1963), Goldstein (1965) and Stuart (1967). As can be seen by the above publication dates, the systematic application of structured and behavior modification techniques to counseling and psychotherapy is a relatively recent phenomenon.

Goals

As in the case of the TIE counseling treatment, the SBM treatment approach has as its overall goal the development of the counselee to the level of a successfully functioning college student. The focus is on specific changes in certain academic behaviors which the counselor and counselee have identified as interfering with successful academic functioning. For the most part, these inappropriate academic behaviors requiring change center around the lack of study habits, self-control and study skills. Therefore, the goals of the SBM treatment are to increase both the quantity and quality of study behavior by a direct focus on behavior change.

Means of Achieving Goals

The SBM treatment process is based on two basic behavior theory assumptions: (1) "psychotherapy is a lawful and directive process which can be investigated

most economically in a learning theory framework, and (2) the variables which effect psychotherapy are essentially the same as those in other interpersonal situations, involving reinforcement, extinction, acquisition, and other constructs" (Carkhuff and Berenson, 1967, p. 88).

In a more specific sense the SBM counseling approach assumes that the majority of counselees in the SBM group have what might be termed a structure or control deficit in regard to academic behaviors. They appear to have marginal study habits, study skills, and stick-to-it-iveness. Furthermore, for many of these students, reading, study, and self-regulation are not self-reinforcing and intrinsically motivating behaviors. The SBM approach assumes that these inappropriate academic behaviors may be isolated and changed by applying structured and behavior modification principles directly to the academic behaviors. The attempt to the SBM treatment approach is to focus on and directly change the responses and behaviors interfering with academic success, and develop new appropriate behaviors by applying principles developed in learning theory. Thus the focus of this treatment is on the counselee's real life academic behavior with less attention being given to the "inner person."

Relationship

The relationship in the structured, behavior modification treatment is given much less emphasis than in the TIE treatment approach. The initial focus is on building respect for the counselor's understanding and skill in modifying behavior versus building a relationship based on trust. The counselor attempts to communicate that he has skills which can be of value to the counselee and that together they can work toward enhancing the counselee's probability of success.

Role of Counselee

The role of the counselee in the SBM treatment is to actively involve himself in the assessment, planning and evaluation process aimed at changing inappropriate behaviors and learning new and more appropriate behaviors. He must actively carry out behaviors prescribed to him by the counselor and provide feedback as to the effects of the prescribed behaviors.

Role of Counselor

The SBM counselor must be willing to dictate the procedures and direction of counseling. He takes an active lead in planning the content of the individual sessions and the course of the counseling process.

Specific Techniques

The SBM treatment procedure provides specific techniques and procedures for attacking counselee problems. Problems are attacked in three phases: (1) assessment of problems, (2) planning and carrying out of attacks on problems, and (3) evaluation of outcomes from the actions. The specific techniques and procedures will be discussed under these three headings.

A. The Assessment Process.--The assessment process was guided by three major questions as spelled out by Krasner and Ullmann (1965): (1) "What behavior is maladaptive and with what frequency does it occur?" (2) "What aspects of the situation or environment are supporting and maintaining the symptom?" (3) "What situational or environmental events are amenable to manipulation?" Answers to these questions provided the basis for planning and executing the attack on counselee problems. To facilitate the process of developing answers to these problems each student was asked to keep a log of daily experiences and study time in order to define and isolate daily problems, scheduling difficulties and to provide examples of progress.

Possible academic behavior problems anticipated included: lack of study schedules, excess of behaviors interfering with study such as sleeping to escape, too little sleep, excessive dating, intramural activity,

"grilling," card playing, etc., lack of proper study environment, poor study skills, poor control and self-regulatory behavior and test anxiety.

B. The Planning and Carrying Out of Attacks on the Problem.--Based on the assessment of the problems, the counselor and the counselee developed schedules, plans and programs to attack the problems. The principle involved was to develop discriminative stimuli related to study, to increase self-reinforcement and intrinsic motivation in regard to academic behavior, and to make use of positive and negative reinforcers to shape and successively approximate desired behaviors. The following techniques and activities guided therapist behaviors.

1. Structuring and Scheduling. Counselor and counselee planned out daily study periods and developed a general schedule for study and other activities. Also an attempt was made to develop a long range plan for preparing for papers, quizzes, exams and assignments for the term.

2. Records. In order to assess and evaluate the on-going treatment process subjects were asked to keep a number of records related to their scheduling procedures and academic performance. These included: (a) number of minutes actually spent in study during the time set aside for

study, (b) rating of the quality of study for each study period on a five point scale from "very good" to "worthless," (c) subject matter studied (a copy of the self-rating form used including those categories described above is found in Appendix C), (d) class attendance, and (e) all grades and scores from papers, quizzes, examination, and assignments for each course which were plotted by the counselor each week. Such records served as a constant reminder of the treatment program and provided immediate feedback to the counselee on the effects of his efforts (Stuart, 1967; Phillips and Wiener, 1966).

3. Environmental Restructuring and Stimulus Control. An attempt was also made to restructure the study environment and build in stimulus controls (Goldiamond, 1965; Fox, 1966). For example Ss were encouraged to locate appropriate settings conducive to study. Stimulus control was generated by developing discriminative stimuli related to study. Ss were encouraged to do nothing but study at their desks. All other behavior such as letter writing, reading for pleasure, eating, etc., were to be done elsewhere.

Also study in situations not conducive to study (i.e., on bed) were discouraged.

4. Use of Positive and Negative Reinforcers Which Help Control Study Behavior. A reinforcer can be identified for every response using Premack's principle, "Of any two responses, the more probable response will reinforce the less probable one" (Premack, 1965). For example, Ss were encouraged to reduce initial attempts at study to periods that were short enough not to be aversive (fifteen minutes) then take a short pleasurable break before returning to study; or, those Ss finding it almost impossible to study certain course material were encouraged to study for five minutes and then get up and walk up and down the hall for ten minutes (of any two responses, the more probable response, i.e., walking, will reinforce the less probable response, i.e., studying). An example of negative reinforcement is that of having the S perform routine, aversive activities such as copying from a newspaper or walking up and down stairs counting steps when not studying during the time set aside for study. When the aversive behavior becomes more aversive than studying, the S returns to study (Fox, 1966).

5. Practice in Study Skills. Basic instruction and practice in improving note taking, outlining, underlining, and reading and test taking were given if needed. The basic reference for study skill methods was Robinson (1961).

6. Use of Other Significant People as Change Agents. If possible the counselor attempted to make changes in the environment of the counselee outside of the therapy hour and elicit the support and help of other significant people in the counselees' environment such as resident advisors, roommates, etc. (Phillips, and Wiener, 1966). For example, a resident advisor might be encouraged to stop by and pick up one of the subjects on his floor and take him along to the library. To the extent the RA has some status value to the subject, he may serve as a significant academic model (Bandura, 1963).

C. Evaluation of Outcomes from Actions Taken.--A constant evaluation of how present situations were being handled differently from past ones, whether planned actions were actually carried out, and whether further analysis and definition of the conditions under which the problem occurred were made once plans and schedules were put

into operation. The continuing use of a log to keep notes on the areas giving problems was one means available to help in the evaluation.

Session by Session Procedures

The following is a synoptical description of typical structured sessions week by week over the six week counseling period. This outline served to provide a common guide to counselor behavior across SBM counselors while at the same time permitting flexibility and individuality in the application of SBM treatment procedures.

Session 1.--Present a statement of plans, i.e., a focus on scheduling, study habits, control, study skills, etc. Enlist the cooperation of student. Outline procedures for keeping a daily log. Request that Ss bring in schedule of all quizzes, exams, and papers for the term. Discuss goals. Assign personality tests.

Session 2.--Note S use of time from daily log; set up an agreeable study plan. Discuss long term planning for quizzes, exams, and papers. Note distribution of time needed to meet deadlines. Identify problems in class giving most difficulty. Make recommendations. Assess study environment. Set up conditions for stimulus control. Assess other study problems. Praise successes. Continue log and record time spent in study, quality of study, record of class attendance, and record of grades on quizzes and exams.

Session 3.--Evaluate effectiveness of plans and schedules developed previous week. Praise success. Note time spent in study and ratings of quality. If subject is experiencing difficulty, set up positive and negative reinforcement conditions. Continue to assess problems in scheduling, study skills, concentration, test anxiety, etc. Make recommendations, develop plans. Encourage self-diagnosis. Verbally reinforce study, structuring and scheduling behaviors. Continue records.

Session 4-5.--Continue evaluation and reassessment of previously developed plans, schedules, and actions. Make adjustments in plans, schedules, reinforcing conditions. Assess any additional problems. Continue records.

Session 6.--Same as fourth and fifth weeks. Discuss and practice test taking techniques. Post-testing of Ss.

APPENDIX C

SELF-RATING FORM

SELF-RATING FORM

DATE	STUDY PERIOD	RATING*	COURSE

*Rating Scale consisted of the following categories: very good, good, fair, poor, worthless.