THE GENERALIZATION OF PROBLEM IDENTIFICATION AND REMEDIAL PLAN SKILLS IN CLIENT-CENTERED CASE CONSULTATION

DISSERTATION

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

For the Degree of

DOCTOR OF PHILOSOPHY

By

Ron R. Eubanks, M. A.
Denton, Texas
August, 1982

An analogue study examines the acquisition and generalization of problem identification and remedial plan skills following client-centered, school case consultation. Nine trained consultants interacted with 35 undergraduate female consultees in one of three intervention conditions. Conditions involved the consultants either viewing the same problem as consultees, not viewing the problem, or attention control. Consultees viewed ten minute video tapes of a problem student in a classroom, then provided written problem descriptions and remedial plans. They then received twenty minutes of consultation or control, and again wrote descriptions of the problem and remedial plans. The same procedure was repeated two day later. One week later, subjects viewed another video tape of a problem student, provided written problem descriptions and remedial plans, but received no interventions.

Content analyses were performed on consultees' written descriptions and remedial plans. Problem descriptions and remedial plans were rated on specific behavioral criteria. A 3 (interventions) x 3 (sessions) repeated measures ANOVA
was computed on each dependent measure. Problem description scores yielded a significant time effect, $F(2,64) = 4.55$, $p < .01$, and a significant interaction effect, $F(4,64) = 5.06$, $p < .001$. Remedial plan scores showed a significant time effect, $F(2,64) = 11.73$, $p < .001$. Post hoc analyses of the problem description revealed no differences between groups prior to consultation. The consultation without observation group was superior to the control group after two sessions of consultation. Both consultation groups were superior to the control group in the session examining generalization of skills. Both consultation groups improved problem identification scores after two sessions of consultation and maintained skills in a third novel situation. Controls decreased significantly from session one to session three.

Conclusions were that both consultation conditions were effective in improving consultees' problem identification skills in a novel situation. Improved skills were achieved more rapidly for the consultation without observation group. Treatment did not significantly effect remedial plan scores across groups. This study lended empirical support to the principle of generalization of problem identification skills following consultation.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>iv</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td>v</td>
</tr>
<tr>
<td>Dissertation</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Historical Background</td>
<td></td>
</tr>
<tr>
<td>Change and Crisis Theory</td>
<td></td>
</tr>
<tr>
<td>Types of Consultation</td>
<td></td>
</tr>
<tr>
<td>Models of Consultation</td>
<td></td>
</tr>
<tr>
<td>Settings for Consultation</td>
<td></td>
</tr>
<tr>
<td>Effects of Consultation</td>
<td></td>
</tr>
<tr>
<td>Research on Consultation</td>
<td></td>
</tr>
<tr>
<td>Unanswered Questions</td>
<td></td>
</tr>
<tr>
<td>Hypotheses</td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td>46</td>
</tr>
<tr>
<td>Research Participants</td>
<td></td>
</tr>
<tr>
<td>Experimental Sessions</td>
<td></td>
</tr>
<tr>
<td>Stimuli</td>
<td></td>
</tr>
<tr>
<td>Treatments</td>
<td></td>
</tr>
<tr>
<td>Dependent Measures</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td>58</td>
</tr>
<tr>
<td>Discussion</td>
<td>62</td>
</tr>
<tr>
<td>Appendix</td>
<td>72</td>
</tr>
<tr>
<td>References</td>
<td>83</td>
</tr>
</tbody>
</table>

iii
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Means and Standard Deviations for Problem Identification and Remedial Plan Scores</td>
<td>76</td>
</tr>
<tr>
<td>2.</td>
<td>Repeated Measures Analysis of Variance for Problem Identification and Remedial Plan Scores</td>
<td>77</td>
</tr>
<tr>
<td>3.</td>
<td>Duncan Multiple Range Tests on Interaction Effect for Problem Identification Scores</td>
<td>78</td>
</tr>
<tr>
<td>4.</td>
<td>Duncan Multiple Range Tests for Correlated Means on Time Effect for Problem Identification Scores</td>
<td>79</td>
</tr>
<tr>
<td>5.</td>
<td>Duncan Multiple Range Tests for Correlated Means on Time Effect for Remedial Plan Scores</td>
<td>80</td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Means of Problem Identification Scores Across Time</td>
<td>81</td>
</tr>
<tr>
<td>2.</td>
<td>Means of Remedial Plan Scores Across Time</td>
<td>82</td>
</tr>
</tbody>
</table>
Consultation is a term which describes numerous professional activities in a variety of fields. It is a label applied to a wide array of interventions in the behavioral sciences in general and psychology in particular. Few psychologists would object to being called a consultant as it is a term with prestige value (Altroochi, 1972).

In this study the term consultation is employed to refer to a restricted set of activities defined by Caplan (1970) as being a process of interaction between two professional persons, the consultant, who is the specialist, and the consultee, who invokes the consultant's help in regard to a current work problem with which he is having some difficulty and which he has decided is within the other's area of specialized competence. The work problem involves the management or treatment of one or more clients of the consultee, or the planning or implementation of a program to cater to such clients.

The definition of consultation is further restricted to that type of professional interaction in which the consultant accepts no direct responsibility for implementing remedial action for the client,
and in which professional responsibility for the client remains with the consultee just as much as it did before he asked the consultant for help. The consultant may offer helpful clarifications, diagnostic formulations or advice on treatment; but the consultee will be free to accept or reject all or part of this help. In other words, the consultant exercises no administrative or coercive authority over the consultee; and unless the latter completely implements his prescriptions, the consultant is not to be held liable for the outcome in respect to the client.

Another essential aspect of this type of consultation is that the consultant engages in the activity not only in order to help the consultee with his current work problem in relation to a specific client or program but also in order to add to the consultee's knowledge and to lessen areas of misunderstanding, so that he may be able in the future to be able to deal more effectively on his own with this category of problem. It is this educational aspect of consultation that makes it a community method, since its goal is to spread the application of the specialist's knowledge through the future operations of those who have consulted him in relation to current work problems (Caplan, 1970, p. 19-20).
Historical Background

In addition to furnishing a specific definition of consultation, a brief historical background on consultation is provided here in order to better illuminate the topic. The traditional services of psychologists to schools involved assessment and remedial services directly to individual students. From the earliest times, it became apparent that direct remediation services would inundate the number of available psychologists and related professionals. Consultation to schools was offered by visiting teachers in the early 1900's and by mental health professionals in the 1920's with a concern for preventive mental health services (Alpert, 1976). Shortly, thereafter, preventive and indirect psychological services to schools subsided for several decades. One major reason for this was due to the demands for psychologists in the Veteran's Administration. A disproportionately large number of the few available psychologists were employed in the Veteran's Administration, as compared to school and community settings.

During this relatively dormant period of psychological consultation, Gerald Caplan embarked upon a series of observations and reasoning that would later culminate in major statements of principles of consultation. Caplan has had the most pervasive influence on the field of consultation (Gutkin, 1981). In 1948 while supervising a small staff of psychologists and social workers, he was responsible for the
mental health of 16,000 immigrant children in Israel. The more than 1000 referrals received during the first year exceeded their capacity for direct remedial services. By chance, the staff noticed patterns of referrals from different facilities. One institution seemed to refer more children with acting out behavior, while another referred more children with learning problems, and another with bedwetting problems.

Caplan utilized these observations to experiment with indirect, consultative approaches to treatment. His reasoning was that if an institution that referred mostly acting out, aggressive children, could learn to better deal with those types of problems, the referral list would be reduced. He found this approach to be successful in his initial pilot studies.

Upon returning to the United States in 1952, Caplan continued his investigations into consultation, while at Harvard University. He contracted with the Wellesley, Massachusetts public school system to deliver consultation services. While observing students in classrooms to identify those in need of psychological services, he and his associate, Erich Lindemann, were bombarded with teacher's questions about child management. Initially, they were annoyed by these questions as their original task was not to work directly with teachers but to identify students for referral to mental health services. However, the time was
again ripe for Caplan to "accidentally" discover more valuable information about consultation. Teachers' interests in his activity and their questions led to his realizing that collaboration between a mental health professional and a teacher had important potential for impacting upon the mental health of students.

Caplan, through astute observations and reasoning, had noted two grounds on which to support the practice of consultation. One was that consultation was a means of reducing the referral overload created by direct psychotherapeutic methods. The other was that consultation was a unique means of pooling the expertise of professionals from different fields in order to influence the mental health of clients. The climax of Caplan's studies was his 1970 book, *The Theory and Practice of Mental Health Consultation*. This has been the major work upon which the majority of recent theory, practice, and research of consultation has been based.

It is only during the last two decades that consultation has once again become a popular topic in psychology (Bergan & Tombari, 1976). As mentioned, psychological consultation began in the early 1900's, yet remained dormant as an intervention until about the 1960's. It could be speculated that the zeitgeist was an influential factor in the renewed interest in consultation and the popularity of Caplan's work.
It was in the early 1960's that the mental health field in general shifted emphasis towards community based delivery of services. The doors were opened to long term state psychiatric hospitals and the bulk of responsibility for mental health services was shifted to community mental health agencies. Governmental funding played a large role in this shift with the enactment of legislation in the early 1960's creating community mental health centers.

Caplan's ideas were appropriately labeled a community oriented, preventive approach, which was right for the times. As he noted in 1970, a major challenge facing mental health professionals was that the number of mentally disordered persons far exceeded the profession's capacity for direct remedial intervention. Caplan also predicted that situation would not improve in the near future, and perhaps worsen.

In light of present trends of decreased governmental funding for training and support of mental health services (Batchelor, 1981) it appears that Caplan's predictions were accurate. Not only in the mental health profession in general, but in the field of psychology in particular, there is an inadequate number of professionals available to provide psychological services (Meyers, 1981).

Caplan's initial discovery and reason for consultation was as a response to difficulties with traditional psychotherapeutic methods, namely too great of a demand for direct services. Meyers (1981) gives additional reasons for the
shift away from customary methods of intervention. These include criticism of the lack of effectiveness of traditional direct methods and the medical model's view of psychopathology.

For an intervention to be valuable, however, it must have strengths of its own and not merely be a refuge from the dissatisfactions with existing practices. Caplan's breakthrough came when he observed the positive elements of consultation as a unique intervention in its own right.

**Change and Crisis Theory**

As consultation has grown in popularity, so has the understanding of the attributes of consultation. Traditional psychotherapy and consultation have in common the goal of change. Change is an integral part of life from birth through various developmental stages to death. Many behavioral technologies are aimed at directing or facilitating change, including education, legislation, health care, and psychological services (Conoley, 1981a). While psychotherapy tends to focus on an individual or family in facilitating change, consultation has the advantage of being able to focus on a broader range. Consultation might focus on the individual client, the client's server, the administrator of a system in which a client functions, or the process of the system (Caplan, 1970). In each case, consultation aims at promoting change.

One theoretical base on which the practice of consultation is founded involves the effect of crises states
upon subsequent behavior (Altroochi, 1972). It is assumed that direct care providers of certain professional groups such as police, school personnel, ministers, physicians, social workers, psychologists, and nurses are likely to be involved or at least present during situations of personal or interpersonal crises (Caplan, 1964). It is further assumed that at times of crises people are particularly ripe for psychological growth or deterioration. During crises it is likely that a person will seek out some type of help and be more susceptible to influence than at other more stable periods of life. Thus crises present such professionals with prime opportunities to effect psychological change and promote mental health. Consultation facilitates such change by aiding direct care providers to more effectively serve their clients.

Consultation not only has the flexibility of being able to focus on various persons and processes within a system but also can be applied to a variety of settings. Frequent settings where consultation takes place are with schools, police, clergy, health care providers, child-care facilities, social and correctional agencies, and industry. Theoretically, consultation could be conducted in many other settings and is done so to a lesser extent.

As initially mentioned, consultation is a vague term. It could easily be a label for a particular activity of a stock broker or attorney as well as of a psychologist.
Caplan's definition greatly limited consultation to refer to a mental health intervention between two professional persons aimed at improving the consultee's service to clients. Even with that significant step in delineating what consultation is, it remains an ambiguous term.

Efforts have been made to elucidate consultation both theoretically and as a description of professional activity. Various writers have made progress in this undertaking (e.g. Bergan, 1977; Meyers, 1981). Yet, it is at this point of demarcation from Caplan's generic term that the scholar of consultation enters a hazy realm of conceptualization. It quickly becomes evident that a theoretical understanding of consultation is still in the infancy stage of development. A major difficulty in this undertaking is due to the wide varieties of consultation.

Not all consultation is the same. Numerous variables enter into consultation. Two of the more abstract variables which enter into the task of categorizing and theorizing about consultation include describing the person on whom consultation is focused, and the psychological theory underlying the consultant's techniques.

Types of Consultation

One important aspect of delineating the activity of consultation is specifying who the focus is upon. As mentioned, several persons may be involved directly or indirectly in consultation, including the consultant, the
consultee, administrators of a system, the client, or the system involving all of these persons.

Caplan (1964, 1970) has provided a categorization to describe whom the focus of consultation is upon. He labels this categorization "Types of Consultation." Here type refers to what person the consultation is with and what person or topic the consultation is about.

The most common type is the client-centered case consultation. In this instance, the focus of consultation is upon a client's case or a group of cases. The consultant focuses on the nature of the case, makes assessment, recommendations, and gives ideas as to how the consultee might best serve the client. The consultant may or may not observe or be in direct contact with the client, but the focus is on interventions aimed at facilitating client change.

A second type is the consultee-centered case consultation. In this approach a particular case of the consultee is examined, but the focus of attention is centered on the consultee rather than the client. The consultant facilitates the consultee's handling of the case by dealing with personal issues that effect the consultee's case management. The consultee's thoughts, feelings, behaviors, and skills are the focus. Change is directed at the consultee and client change is an indirect result of this.
The third type of consultation is program-centered administrative consultation. How to develop a new program or improve an existing one is the focus of this type of consultation. The consultant uses knowledge of administration, social systems, mental health, and program development of other institutions to suggest solutions to administrative issues of the consultee organization. The focus in type of consultation is on the program rather than the persons involved. It is conducted with those persons responsible for the administration of the program at issue.

Caplan's fourth type of consultation is consultee-centered administrative consultation. This involves examining program issues, but rather than assessing and suggesting actual changes, this model focuses on the people involved. The consultee's own personal difficulties, thoughts, and feelings about administration of a program are the focus of consultation.

While this categorization is a useful framework, it is not perfect. There is overlap among these categories, especially between the two types of case consultation with each other and between the two types of administrative consultation with each other. An example helps to clarify the difficulty sometimes encountered in attempting to differentiate types. In a case where a consultant is engaging in client-centered case consultation with a teacher, the focus would be upon the student. Suppose the student's
difficulties were identified as shyness, withdrawal, depression, and passivity impeding class participation. If the consultant also noted that the teacher were a strict, demanding, aggressive, intimidating, person, it might be conjectured that the student's problem might be accentuated by such teacher behavior. Intervention might involve suggesting that the teacher consider a more sensitive, encouraging, nurturing approach with this student. Such an intervention might be apparent to the consultant as being a viable solution. Such a tact however, then becomes consultee-centered case consultation focused on the teacher, as well as the client-centered case consultation focused on the student. While weaknesses are apparent with Caplan's categorization, it remains the best available means to answer the question, "Who is being consulted with, and what or who is the focus on?"

Models of Consultation

The second primary task in describing, understanding, or applying consultation involves the therapeutic orientation underlying the consultation. A parallel may be drawn to psychotherapy at this point. Psychotherapy has the general goal of inducing change in persons. The goal of change may be called mental health, actualization, adjustment, or some similar term. To achieve these goals, various theories of human behavior are employed. Common theories of psychotherapy include psychoanalytic, behavioristic, humanistic,
rational emotive, social learning, gestalt and others. These theoretical orientations vary in the complexity of their statements about the nature of humans and their techniques of intervention. Some of these theoretical orientations are primarily detailed views on human nature such as humanistic psychotherapy while others emphasize therapeutic technique with minimal attention given to theories of human nature, such as rational emotive therapy.

Consultation is analogous to the above discussion of psychotherapy. The term theoretical orientation in psychotherapy is analogous to the term model as used by writers on consultation. The word model is used in a somewhat confusing manner in consultation. The models are not clear cut definitive models analogous to scientific theories or hypotheses. They are in a rough stage of development and refer to the school of thought to which the technique is most closely tied. Consultation grew out of traditional psychotherapy and the models are quite similar to psychotherapeutic orientations. Attempting to define theories of psychotherapy or models of consultation is not the purpose of this study, but some explanation of this topic is warranted because of the frequent use of the term models in literature on consultation.

Psychoanalytic psychotherapy and the psychoanalytic model of consultation have in common the view that intrapsychic unconscious mental events are the key to
understanding and changing human behavior. A psychoanalytic model of consultation in a school might assess what that student's level of ego development is, what unconscious themes are present in the student's behavior, or what early childhood conflicts seem to be contributing to a repetition compulsion behavior. A behavioral model of consultation, focused on the same child, would be unconcerned with intrapsychic constructs and focus on establishing baselines of how often certain behaviors occur, what contingencies reinforce certain behaviors.

Models as used in consultation literature in general and in this study in particular refers to the theoretical view of the nature of humans or the techniques most closely associated with the model. Whether a model is primarily a theory of human behavior or primarily a set of techniques of intervention, varies with each model. If this seems ambiguous, it is, and is an indication of the need for greater specificity of method and rationale in consultation.

There are various models of consultation presently receiving attention in research and practice. The primary models of consultation are (a) mental health consultation (Caplan, 1970; Meyers, 1981), (b) behavioral consultation (Bergan, 1977), (c) organizational development (Jerrell & Jerrell, 1981), (d) process consultation (Schein, 1969), and advocacy consultation (Conoley, 1981b).
When combining models of techniques with types of focus of consultation there are various combinations, overlap, and often an unclear distinction of which model or type is being conducted. While not all of these models fit neatly into Caplan's categorization, organizational development and process consultation tend to be most frequently tied to the two types of administrative consultation. Behavioral and mental health consultation tend to be most closely associated with the two types of case consultation (Conoley, 1981a). The two types of case consultation differ primarily in whether the focus is on the client or the consultee, and, as mentioned, often there is overlap.

There are general similarities but also specific differences in the models of mental health consultation and behavioral consultation (Medway & Forman, 1980). Mental health consultation employs client-centered counseling principles to facilitate consultees gaining insight into the personality dynamics of themselves or their clients. A focus on the consultee's feelings, use of a consultative relationship, support, clarification, confrontation, and similar techniques are utilized to enhance the consultee's skill, knowledge, objectivity, and confidence in working with the client. Behavioral consultation, derived in large part from social learning theory, involves the application of reinforcement principles to the consultative relationship. Behavioral consultants tend to be more directive in their
approach to consultation than mental health consultants. Behavioral consultation focuses on identifying reinforcement contingencies that maintain inappropriate client behavior and assists consultees in substituting these contingencies with ones that reinforce more appropriate behavior.

There is not always a clear distinction in models in actual practice as eclecticism is common among consultants. In other words, skilled consultants have a variety of techniques and apply various ones to different situations. Mental health consultation as originally described by Caplan (1970) has been refined by Meyers (1981) and includes behavior modification as a specific method that might be applied in mental health consultation. This lack of a clear distinction between techniques may account for some of the diversity of opinion regarding the most effective model of consultation (Medway & Forman, 1980).

Settings for Consultation

In addition to types and models of consultation, another important factor in consultation is the setting in which it occurs. Unlike types and models, the setting is straightforward and easy to define. The most common setting for consultation activity is in schools (Conoley, 1981a). Also, schools are the most frequent setting for research on consultation (Mannino & Shore, 1975; 1980). Within school consultation, case consultation is the most common type and mental health and behavioral consultation the most frequently
applied models (Bergan & Tombari, 1976; Conoley, 1981a). Because these types and models are most frequently studied and consistent with Caplan's theoretical statements on consultation, these topics warrant further examination. Also, the present study will restrict itself to this area in order to achieve greater specificity of the topic.

**Effects of Consultation**

As mentioned previously, the purpose of consultation is to promote change. This may occur in the consultee, client, or the system (Mannino & Shore, 1975). Using case consultation in a school setting as an example, the changes that might occur in the client or student are increased on-task behavior and achievement (Goldstein, Weber, & Berneman, 1979), improved mental health, or a preventive effect on mental health problems. Specific changes in the consultee or teacher might be increased confidence, learning new behavior management skills, improved skills in identifying problems and planning solutions, or greater job satisfaction.

Caplan (1970) cites four primary reasons for which a teacher might receive consultation regarding a case. These are the teacher's (a) lack of skill, (b) lack of knowledge, (c) lack of confidence, or (d) lack of objectivity. Each of these areas effect the teacher's ability as a facilitator of change.

The consultant's task in the first situation is to provide the teacher with knowledge about psychological
principles and issues regarding a particular case that enables the teacher to function more effectively with a student. In the second instance the consultant might help the teacher to learn a needed intervention skill to effectively deal with the case or a similar problem as it occurs in the present or future. In the third situation, the consultant's task is to help the teacher feel more confident in his or her professional abilities. When the reason for consultation is due to a teacher's lack of objectivity the consultant's task is to help the teacher gain distance or redefine the role that creates prejudice or clouds objectivity (Meyers, 1981; Gutkin, 1981).

**Research on Consultation**

Consultation began as an applied intervention. As its popularity grew, systematic studies were conducted to describe what the practice of consultation was. Next, hypotheses were constructed to explain the rationale and goals of existing consultation practices. Then, studies began to test hypotheses about consultation to determine if the practice itself had empirical bases and whether the hypotheses were correct. Experimental studies designed to refine and understand consultation have only been occurring for about the past 20 years (Bergan & Tombari, 1976). There is no fine line of when descriptive studies stop and empirical studies begin. Both are a constant and simultaneous process of research.
Early studies in consultation were descriptive and survey studies. They provided the first systematic delineation of what consultation is. A sampling of such studies is provided here as background for the present study.

Bindman (1959) described a mental health consultation program of the Massachusetts Department of Mental Health. This early program involved a mental health professional added to a three person child guidance clinic team. This additional person established professional contacts with teachers and the juvenile courts. The primary tasks involved aiding consultees with crises encountered with particular clients, and teaching the consultees how to better appraise which children were in need of referral for specific diagnostic evaluations at a community mental health clinic. By giving case examples, this report primarily described how relationships were established between consultant and consultee, with little attention given to the specific interactions following establishment of rapport.

Stringer (1971) described a consultation program between the St. Louis County Health Department and a number of county school districts. Stringer went beyond relationship establishment tasks in consultation to describe role expectations and personal qualities she believed were required of a consultant. She also described special skills
required, such as being sensitive, an arbitrator, and keeping perspective of who has administrative responsibility.

A more precise descriptive study was reported by Hirschowitz (1971). He described what he considered to be important aspects of a consultation program, based on his experiences. He emphasized the need for consultants to clearly identify the problem being addressed. He specified points of the system at which intervention might be directed, goals of consultation, behaviors for consultants to avoid, and issues important to training consultants.

Lauver (1974), and Lambert (1974) specified step by step procedures for consulting with teachers, including identification of the problem, goals, contributing factors, remedial plans, and evaluation. Lambert further contrasted the differences between school and community consultation. By this time, studies such as these were beginning to operationalize the specifics of consultation and not merely give global descriptions as did early writers such as Bindman.

As consultation became operationally defined through the contributions of these and similar descriptive studies, empirical investigations were possible and necessary. Empirical studies have addressed two general questions. One is, "Does consultation work (or is it effective)?" The other is "What factors influence the effectiveness of consultation?" The question regarding does consultation work
means, "Do predicted changes occur in consultees, clients, or systems following consultation?" Since consultation is a broad term, as previously discussed, in order to precisely answer the question of effectiveness, it is necessary to specify what type of consultation is being conducted, utilizing what model, with what kind of problem, in what setting, with what kind of problem, and what kind of consultant. Only recently has empirical research on consultation moved towards greater specificity of identifying what changes occur, how, with whom, and how it is measured (Conoley & Conoley, in press).

Before examining studies that directly address the question, "Is consultation effective?" an examination will be made of studies that primarily addressed the question of what factors occur during consultation and what influence do these factors have on the effectiveness of consultation.

An intermediate level of research between anecdotal descriptive studies, and experimental investigations, has been the utilization of survey, correlational, and self report data to describe consultation activity. Several authors have examined characteristics of consultants, consultees, clients, and types of problems addressed that appear to effect the process of consultation or participants' perceptions of consultation.

Iscoe, Pierce-Jones, Friedman, and McGehearty (1967) conducted a comprehensive two year study of consultation in
28 schools in two cities. Using graduate students as consultees, several personality factors of teachers were assessed, types of problems of students categorized, and self reports of teachers' and consultees' satisfaction with consultation collected. Their study found that 72% of clients were boys, with median student age of 9 years. They found that previous usage of consultation by teachers increased later usage.

Savage (1959) found that consultants whose suggestions were most often carried out were those who were most acquainted with the principal, best able to clarify and define problems, and able to offer follow-up services. Other consultant characteristics such as cooperation, emotional adjustment, pleasing personality, and ability to inspire confidence were described by teachers as important aspects of consultants.

Mann (1973), and Schowengerdt, Fine, and Poggio (1976) examined ages of consultants and teachers, consultant's ratings of successful consultation, consultee's ratings of satisfactions, and correlations between these variables. Both studies indicated that older teachers tended to rate consultants more positively than did younger teachers. Consultants, however, reported perceptions of greater success rates with younger teachers.

Richman (1971) examined a multiple discriminant analysis of the Edward's Personal Preference Schedule with a
consultation priority schedule constructed to reflect various behavior problems. Findings indicated that subjects differing in consultation priorities also differed in personality characteristics. Mischley (1973) used the Adjective Checklist to compare personality characteristics of consultees with preference for model of consultation. Results indicated that more authoritative teachers preferred an expert model of consultation, whereas democratic teachers preferred a facilitator model.

Other survey studies, in addition to the Iscoe et al. study, have examined types of problems in consultation. Chandy (1974) in a study of consultation in elementary schools utilized consultant's logs of cases to examine topics of consultation. Fifty-five percent of the consultation sessions were focused on specific student behavior problems. Other frequent concerns were academic problems, general behavior management, and organizational factors. Meyers, Friedman, and Gaughn (1975) found that common client and consultee problems most often were centered on student problems, teacher vocational issues, classroom management, and problem identification.

These studies provide useful descriptive data on what problems are frequently discussed in consultation. They also illustrated how consultants' and consultees' ages, personality, and experience play a role in perceptions of consultation effectiveness and reported satisfaction with
consultation. These variables are descriptions of components entering into a consultation process. While consultant age may or may not effect consultation, it cannot directly be altered. There are other components of consultation, however, that can be altered or may intervene on stable variables such as participants' ages or personalities.

More salient variables that are not stable characteristics of the parties and problems involved in consultation include techniques and methods of consultation. The activities occurring during consultation, including techniques, interactional styles, duration of consultation, and individual versus group interactions, are variables that have recently gained research attention. The task of this research activity has been to describe what activity occurs during consultation and also examine how it is related to the effectiveness of consultation.

Robbins and Spencer (1968) studied tapes of consultation sessions to identify phases in consultation. They categorized and defined three stages. The first was the expositional stage in which the consultee gives information about the presenting problem. Second was the reactive stage in which the consultant becomes active, clarifies, and puts information in perspective. Third was the summarization stage in which decision making and planning for the future occurs.

Another descriptive study of phases of consultation was by Tetreault (1968). This study identified phases and
processes of consultation occurring during each stage. The first phase was ventilation in which the consultee freely discusses the problem. Second was problem clarification in which the consultant questions the consultee about relevant details of the problem. Third was the direct influence stage in which the consultant makes specific suggestions. The final stage was offering alternative solutions in which the consultant and consultee collaborate to form feasible remedial plans.

Robbins, Spencer, and Frank (1970) went beyond descriptive studies. They utilized questionnaires, observation, audio tapes, and follow-up interviews of consultation sessions to examine factors occurring during consultation that effected the success. They found that consultants who were prepared, seemed interested in their work, and knew the participants of a group consultation were more successful in conducting mental health program consultation. This study went beyond most studies of the time by specifying the model used and the type of focus of consultation, in this case mental health model program consultation.

Cossairt, Hall, and Hopkins (1973) altered instructions, feedback, and social praise during consultation with three elementary teachers. They found that social praising to teachers was most effective in increasing teachers' praising of students, as measured by behavioral observations.
Bergan and Tombari (1976) examined audio tapes of consultation sessions through the use of content analysis of verbal interactions during consultation. They predicted they would find a problem solving sequence similar to the scheme described by Robbins and Spencer (1968). One aspect of their findings was that the consultant's skill during the initial problem solving phase of consultation was highly predictive of successful problem solution of the case.

The amount of time spent in consultation was examined by Tyler and Fine (1974), and White and Fine (1976), by varying the number of consultation sessions. They found that as the number of consultation sessions increased, teachers expressed greater satisfaction, rated children as more improved, and implemented more classroom strategies.

In summary, these studies examining activity occurring during consultation, reach at least the following conclusions. Consultants who are most skilled at eliciting information, facilitating identification of the problem, and spend the most time in consultation are viewed by consultees as being the most successful.

The majority of research in consultation has addressed the question of its effectiveness. Measuring the effectiveness of consultation is a difficult task, just as is measuring the effectiveness of psychotherapy. Ways of measuring its effectiveness have involved measuring changes in consultees, clients, or systems. Changes measured in
consultees include professional growth, self concept, changes in perceptions of client, changes in behavior, satisfaction with consultation, and skills in identifying client's problems. Changes measured in clients include changes in attitudes, behavior, and achievement. Changes measured in systems include climate, group process, and communication.

Mariner, Brandt, and Stone (1961) consulted with counselors, teachers, and administrators in schools. This study, which had no control group, attempted to increase teachers' awareness of motivation on the learning process in children. A test of "psychological mindedness" and a rating scale were used as measures. Results indicated that consultee's psychological mindedness scores improved. Participants also rated the consultation discussions as stimulating and beneficial to their work.

Teitlebaum (1961) examined consultation effectiveness in a group of teachers in matched lower class inner city schools in New York City. Consultants and teachers kept logs on ratings of professional growth. Ratings by principals showed that teachers who had received consultation were more confident of their teaching abilities and showed greater professional growth than did controls.

In 1972, Linoff compared a behavior modification model of consultation with a model emphasizing understanding of student behavior. No significant differences were found between the two models with regard to teacher-student
interaction, open mindedness, teacher perceptions of student behavior, or unconscious motivations of teacher behavior.

The Iscoe et al. (1967) study, already mentioned, utilized numerous rating scales designed specifically for their study to measure effects of consultation. No differences were found between consultees and controls on teachers' perceptions of mental health in the classroom.

Chandy (1974) examined teacher behavior following an inservice program presenting the goals and role of a mental health consultant. Those teachers who were given the inservice training, utilized consultants significantly more than control subjects, and, more frequently discussed pupil related academic and behavioral concerns.

Meyers, Friedman, and Gaughn (1975) specifically described their method of consultee-centered consultation techniques in a study of changes in teacher behavior. Three teachers in the inner city school received consultee-centered consultation. Two of the three showed a decrease in negative verbal behavior toward students as measured by a multiple baseline behavioral description. While this study specifically described its method of consultation, and had a form of pre-test and post-test measures, no control group was included.

An investigation examining the effect of consultation on student academic performance, attitudes toward school, peer acceptance, and teacher ratings of student behavior was
conducted by Davis (1972). The experimental group received 20 biweekly, 45 minute presentations on mental health from a teacher who received guidance from a consultant. Pre-test and post-test measures were taken and a control group was included. No differences were found between groups except for the consultation group's students being rated higher on social acceptance.

Lewis (1969) and Thurlow (1971) both compared consultation to counseling on elementary school children. Following a twelve week experimental period, Lewis found that consultation had a positive effect on teachers' perceptions of students' achievement oriented behavior. There were no effects found on sociometric status or personal adjustment measures on pupils. Thurlow found no differences between consultation and counseling groups, as compared to a control group, on these interventions in lessening anxiety in students.

Brown and McDougall (1973) assessed student attitudes toward themselves. They administered the Personal Competency Inventory as pre-test and post-test measures surrounding students' teachers receiving inservice training consultation. Students were found to perceive themselves as more adequate with classmates and teachers following the consultation.

These studies indicate that positive effects of consultation on clients are not clear. Neither achievement
nor behavior was consistently changed by consultation in these studies.

Schmuck (1968) examined the effects of consultation on changes in systems. Schmuck measured classroom changes in group process through questionnaires administered to pupils and anecdotal data gathered from teachers. Consultation consisted of individuals and group conferences with teachers focused on problem solving and classroom coping. A control group was included. Results showed that teachers receiving consultation had higher perceptions of themselves as teachers and better views on problematic situations. No changes in group process in students were observed, however.

Keutzer, Fosmire, Diller, and Smith (1971) used an organizational development model of consultation on teachers in a new high school. Another new high school served as a control. Self report data indicated that teachers in the school in which consultation was conducted exhibited greater interpersonal openness and acceptance of conflict. Students in the school receiving consultation saw the faculty as more receptive and themselves as more responsible than controls did.

The Schmuck and Keutzer et al. studies were large scale studies with high external validity. Conflicting results were reported concerning changes in students as a result of consultation. Criticism of these studies are that internal validity was weakened by the large scale and length of the
studies of several months. Over a period of time any number of variables over which the experimenter has no control are likely to effect subjects. It then becomes difficult to attribute changes solely to the consultation intervention. Also, these studies relied upon self reports rather than more objective independent measurements.

This review of research in consultation demonstrates the variety of settings, methodologies, measurements, hypotheses tested, and degree of experimental rigor in consultation studies. The scientific method in any discipline moves first from describing, then to understanding, and eventually, to attempting to manipulate the particular subject matter. Consultation research has been primarily in the first two phases of this process. As of 1972, Cowen reports that there were only six empirical studies in consultation. Empirical research has increased in recent years, as Medway (1979) reports that 18 of 29 studies reviewed between 1972 and 1979 were empirical studies including control groups. Sophisticated research in consultation with high internal validity has occurred only during the past five or six years.

Two methodological trends in recent consultation research appear to be emerging. One is the application of content analysis as a measurement of consultation procedures and effects (Bergan & Tombari, 1975, 1976; Conoley & Conoley, in press; Curtis & Reike, 1981; Curtis & Watson, 1980; Isaacson, 1981; Tombari & Bergan, 1978). The other is the
use of analogue studies to increase internal validity
(Conoley & Conoley, in press; Curtis & Reike, 1981; Curtis &
Watson, 1980; Isaacson, 1981; Medway & Forman, 1980; Tombari

Content analysis is defined as a systematic analysis of
the content of a communication, especially the determinance
of the presence and frequency of specific elements in
response to a stimulus. The strength of content analysis as
a measurement is that it provides an independent, objective,
reliable, standardized manner to measure behavior. Self
report and preference questionnaires, used in previous
research, are less objective. Subjects can more easily
perceive what is being measured and alter their responses
according to their own motivations. Content analysis, on the
other hand, is performed on samples of subjects' behaviors
and increases subjects' blindness as to what is being
measured and how. Analogue studies, which have long been used
in other areas of research in psychology, offer greater
opportunity for internal validity in consultation research
than has been demonstrated in the majority of the studies
just reviewed.

Content analysis as described by Bergan and Tombari
(1975) was extrapolated as a consultation measurement
technique from research on psychotherapy. They devised a
scheme for coding and categorizing communications of a
consultant and consultee. This involves taking the written
statement of a consultant or consultee or written transcript of their verbalizations and classifying or categorizing each salient statement. This technique, as used in psychotherapy research by Auld and Murray (1955), focused on counting the number of statements about hostility, dependency, or some other topic of interest, as an objective measure of the client's verbal behavior. In the scheme developed by Bergan and Tombari for consultation research, the content analysis scheme is designed so that verbal behaviors of a consultee fit into some stage of a problem solving process. This was based on the earlier work of Robbins et al. (1968, 1970), Hirschowitz (1971), and Lauver (1974) which, as mentioned, described consultation as a problem solving process. This process involved problem identification, clarification, planning, and implementation. Bergan and Tombari's measurement technique was developed for studying the process and effectiveness of consultation as a problem solving activity.

In 1976, Bergan and Tombari reported the application of this content analysis method of measurement of consultant and consultee behavior. They examined the effectiveness of consultation as a problem solving intervention on 806 children by 11 psychologists in 10 cities. All psychologists were trained under a consultant training program at the University of Arizona. Their content analysis of consultation interactions categorized the interventions and
consultee statements as falling into one of the following stages of problem solving: problem identification, plan implementation, or problem solution. Their methodology of content analysis was sensitive to categorizing consultation interactions into one of these phases of problem solving. In addition to demonstrating the utility of this measurement technique, multiple regression analyses indicated that problem identification accounted for 95% of the variation in problem solution. In other words, when problem identification was successful, problem solution almost invariably occurred.

Curtis and Watson (1980) further demonstrated the utility of content analysis methods of measurement and also analogue studies in consultation research. They examined changes in consultees' problem clarification skills following consultation. Their study involved eight consultants, twenty-four teachers, and the inclusion of a control group. Their findings were that consultees' problem clarification abilities were increased from consultation with highly skilled consultants.

Tombari and Bergan (1978) utilized content analyses and an analogue study to examine teachers' verbalizations about student problems. They compared problem descriptions between consultees receiving either a behavioral model of consultation or a medical model. They found that descriptions were congruent with the model of consultation
received. The medical model resulted in more pessimistic expectations of teachers' abilities to solve classroom problems.

Medway and Forman (1980) employed an analogue study to examine consultees' and consultants' preference for either a behavioral model or a mental health model of consultation. Subjects viewed video tapes of teacher-consultant interactions in which the consultant utilized either a behavioral or mental health consultation. Presenting problems were held constant across groups. Findings indicated that teachers preferred behavioral consultation while consultants preferred mental health consultation.

Conoley and Conoley (in press) also conducted an analogue design and content analysis measurement with experimental and control groups to examine the effectiveness of client-centered case consultation. The impact of consultant observation of the problem on effectiveness of consultation was also examined. Similar to Bergan and Tombari (1976), Curtis and Watson (1980), and Tombari and Bergan (1978) problem identification abilities of consultees was utilized as an index of consultation effectiveness. Consultees' remedial plans were also analyzed as a measure of consultation effectiveness. Results indicated that consultation was effective in improving consultees' problem identification skills and that this occurred more rapidly in consultation without the consultant's direct observation of
the problem. Remedial plan descriptions changed over time but not differentially between groups.

As analogue studies began to be used in consultation research, Isaacson (1981), and Curtis and Reike (1981) compared analogue studies with field studies of consultation. Isaacson compared the stages and verbal processes of consultation in analogue and field settings. Content analysis of interactions showed no differences between the analogue setting and the field setting of consultation. Curtis and Reike examined the consistency between analogue simulations and real-life consultation sessions. Content analyses of consultant and consultee verbal behaviors showed no significant differences between the two situations.

The preceding review of research in consultation provides a compendium of methodologies, settings, and questions addressed by consultation research. As Medway (1979) notes, and this review illustrates, consultation research is moving in the direction of greater specificity of methodology and questions asked. Initially, consultation research globally described consultation procedures (e.g. Bindman, 1959). Gradually, descriptive studies employed measurements to more specifically describe consultation (e.g. Robbins & Spencer, 1968). Then anecdotal and empirical studies began to examine and measure specific behaviors of the participants during consultation (e.g. Robbins et al., 1970). The bulk of more recent consultation research (e.g.
Meyers et al., 1975) has addressed the question, "Is consultation effective?" This has been done with greater methodological control and objectivity of measurement in even more recent studies (e.g. Conoley & Conoley, in press). As indicated, conflicting results of consultation effectiveness have been reported.

Mannino and Shore (1975, 1979, 1980), and Medway (1979), in reviews of consultation research addressing the question of effectiveness, state that a majority of the studies reported that consultation appears to be effective. Conclusions about consultation effectiveness must be made with caution, however (Medway, 1979). As he indicates, experimental design weaknesses common to a number of studies limit the confidence which can be placed in their findings. Medway specified the following variables which had generally not been controlled in consultation studies prior to 1979. These are (a) the number and characteristics of consultant participants, (b) rarely have more than one or two consultants been utilized, (c) virtually no information is presented on consultants' training and experience, (d) often the consultants are the investigators, increasing the likelihood of experimenter bias, and (e) rarely have consultees been a homogeneous population as to age and teaching experience.

A lack of unanimous research support for the effectiveness of consultation may be attributable to design
flaws as mentioned by Medway. It also may be due to differential techniques, types of consultation conducted, and the populations involved (Conoley & Conoley, in press).

In order to clarify these issues and remedy these difficulties, consultation is moving away from global questions and beginning to examine specific components of consultation. The more recent research reviewed here exemplifies this trend. Current studies no longer tend to merely describe consultation in general terms and address the question, "Is consultation effective?" Rather studies are addressing one or more components of the question, "What model and type of consultation is effective with what type of consultee with what problem?" These questions are being addressed by more rigorously controlled studies and with more objective measurements as indicated by the recent studies of Conoley and Conoley (in press), Curtis and Watson (1980), Medway and Forman (1980), and Tombari and Bergan (1978).

Unanswered Questions

In keeping with this trend, the present study was intended to address a specific issue in consultation. This issue is one which has not received empirical investigation, and yet, is the very raison d'être of consultation.

Recalling Caplan's authoritative definition of consultation, it is an activity not only intended to help the consultee with the current work problem in relation to a specific client, but also is intended to add to the
consultee's ability to more effectively deal with similar problems in the future. If consultees fail to utilize their increased skills in future situations, the very rationale for consultation as an intervention is questionable. In addition to Caplan's general statements on consultation, inherent in any model of consultation (e.g. behavioral, mental health) is the concept that the effects should generalize to other situations in the present and future. If consultation is to be considered a strategy for primary prevention and the change inducing strategy it is purported to be, the generalization of effects must be demonstrated (Mannino & Shore, 1979).

While this is such a vital principal of consultation, there is an extreme paucity of published empirical studies addressing the issue. The only published study specifically designed to examine this generalization phenomenon was a case study by Meyers (1975). Meyers utilized client-centered behavioral consultation focusing on behavioral problems of one student and consultee-centered consultation focusing on the teacher's feelings as an authority figure. As well as observing behavior change in the target student, a second problem student was observed to display less problem behavior following consultation. The conclusion of this case study was that the effects of consultation had generalized to the second student. A general improvement in classroom management was also reported from anecdotal data.
This study reported by Meyers was an important step in examining the generalization of effects of consultation. Being the sole published study of this concept it cannot be taken as conclusive evidence for supporting the generalization effect. Serious limitations in the methodology of this study also reduce confidence in conclusions that can be drawn from it. It had a small sample size of only one teacher and one consultant, who was also the investigator, a method that increases experimenter bias, according to Medway (1979).

The purpose of the present study was to build on the work begun by Meyers to further examine whether the effects of consultation generalize. Improved methodology in research on consultation, developed within the past few years since the time of Meyer's study, was employed in order to more rigorously investigate this concept.

This study investigated the question, "Do the effects of client-centered case consultation upon consultees' problem identification and remedial plan abilities, generalize to new similar situations?" Because this question had not been previously addressed by empirical consultation research, there were no research designs established specifically to investigate this question.

The trend of recent research in the related area of investigation of consultation effectiveness with its emphasis on experimental rigor, provided suitable research designs
(e.g. Conoley & Conoley, in press) to apply to this new empirical question. Incorporating Medway's (1979) suggestions for a well controlled empirical study was the first imperative. These recommendations which were incorporated included (a) pre-test and post-test measurements, (b) several consultants of similar training and experience, of which the investigator was not one, (c) several consultees, homogeneous as to amount of teaching experience, and (d) control as well as treatment groups. To avoid differences in effectiveness between different models and types of consultation, a single model, mental health, and type, client-centered case consultation, were employed.

In order to keep presenting problem constant and decrease contamination from external events, in other words, increase internal validity, an analogue study was conducted. As mentioned, Isaacson (1981), and Curtis and Reike (1981) have shown the consistency between analogue and field studies in results of consultation research.

Measurement of effects was another critical issue in this study's design. To explain the rationale for the measurement technique employed, a summary of key concepts from previously reviewed studies is given. Bergan and Tombari (1976), Caplan (1970), Hirschowitz (1971), Lauver (1974), Robbins et al. (1970), and Savage (1959) all conceptualized consultation as a problem solving process between the consultant and consultee. Ideally, the consultee
learns problem solving skills as a result of consultation. Consultation according to these authors presupposes the following assumptions: when consultation on a case occurs, a problem or problems will be identified, after a problem has been identified, a plan will be formulated to solve the problem, implementation of the plan will result in problem solution.

Robbins et al. (1970) in wrestling with the measurement of consultation effectiveness present the following argument. It seems reasonable to assume that solution of a problem would be the criterion for effectiveness of consultation. Often, however, solutions are difficult to measure or may occur at a much later date from the time of consultation. They then suggest that attainment of subgoals of problem solution would give a partial indication of the effectiveness of consultation. A subgoal would include accomplishment of other phases in the problem solving process besides problem solution. Identification of the problem is one such subgoal, which gives an indication of consultation effectiveness according to their argument.

As reported, Bergan and Tombari (1976) found that problem identification was the critical phase in problem solving process. When problem identification occurred, problem solution almost invariably occurred.

Birnery (1981) elaborates the importance of problem identification. He states that a major breakdown of the
problem solving process most frequently occurs at the initial step, problem identification. According to Birney, this happens because consultees initially tend to define problems too vaguely for an outsider (consultant) to understand. For example, the problem may be identified as "communication problems." Utilization of such broad terms limits identification of specific avenues for remediation.

The statements of Birney, and Robbins et al., as well as the research findings of Bergan and Tombari, support the notion that consultee's problem identification abilities are a crucial factor in consultation. Because this skill is of paramount importance in consultation, changes in this skill appear to be an index of the effects of consultation.

Based on this same reasoning, Conoley and Conoley (in press) speculated that in addition to consultees' abilities to identify problems, ability to formulate remedial plans for solution of a problem could be utilized as an index of the effects of consultation. Their reasoning was that planning a solution represents the next step in the problem solving process.

Returning to the issue of measurement of effects in this study, based on the rationale just discussed, consultees' abilities to identify a problem and generate a remedial plan were employed as indices of change due to consultation. In order to quantify consultees' problem identification and remedial plan skills, content analysis was utilized. As
discussed, content analysis has been shown to be an objective, reliable method of measuring behavior.

This study was designed to collect data to address additional questions besides the generalizations of effects of consultation. This study also examined the effectiveness of consultation on consultees' abilities immediately following two sessions of consultation. A third aspect of this study compared the effects of whether a consultant observes the problem or not on the effectiveness and generalization of effects of consultation. The examination of generalization of effects of consultation was the unique contribution of this study. Further examination of the effectiveness of consultation and the effect of consultant observation of the problem were additional contributions of this study, adding to similar lines of research already underway in the field.

This study utilized a very select group of participants in a specific sequence of consultation analogue sessions. Details of these circumstances are provided in the next section. However, in order to clarify the use of certain terms in this study, the population parameters must be noted. Consultation in this study refers to Meyers' mental health model of client-centered case consultation for two 20 minute sessions. Consultants refers to the school psychology doctoral students who served as consultants in this study. Consultees refers to 20-27 year old female education students
lacking in teaching experience. Generalization of skills refers to skills demonstrated in a similar situation in the present or future (Meyers, 1981). Skills refers to abilities to identify the problem observed and generate a remedial plan. These skills, as measured by content analysis, represented the effects of consultation.

Hypotheses

With these limitations in mind, the specific hypotheses of this study may be stated as follows.

(a) When faced with a new situation similar to one for which consultation was received, consultees who received consultation will show significantly greater abilities than consultees who received a control intervention.

(b) Immediately following two sessions of consultation, consultees who received a consultation intervention will demonstrate greater abilities than consultees who received control condition.

(c) For the effectiveness and generalization of effects of consultation, it was predicted that there would be no differences between consultation with or without observation of the problem by the consultant.
Method

Research Participants

Consultants. Nine advanced school psychology graduate students served as the consultants. There were 7 females and 2 males ranging in age from 24 to 35 years of age. All consultants were nearing completion of training in a year long course and practicum in consultation. All students in the graduate consultation course from which consultants were selected participated in this study, accounting for the number of male and female consultants. They had demonstrated competence in meeting the theoretical and practicum requirements of the consultation course. In addition to their course training they were given a special three hour training experience one week prior to the study. Without being informed of the purposes of the present study they were briefed on what was expected of their role. They received a videotaped presentation and participated in role playing exercises based upon Meyers' (1981) mental health model of client-centered case consultation which was the consultation model used in this study. All consultants participated in all experimental conditions.

Consultees. Thirty-five undergraduate female education students ranging in age from 20 to 27 years old served as consultees. Demographic data collected on consultees revealed that one or two subjects in each group had limited experience substitute teaching in schools. None had previous full time
paid teaching experience, but about half had taught informally in settings such as Sunday school and hobbies. This data reveals that consultees were a homogeneous group as far as amount of teaching experience. They could be considered as virtually inexperienced as far as teaching experience and on the lower end of the age spectrum of teachers. Consultees received extra course credit for participating in this study.

Experimental Sessions

Consultee subjects were randomly assigned to one of three experimental conditions. All consultees attended two 50 minute sessions, separated by 2 to 4 days, and finally one 20 minute session one week later. Each consultee underwent this experiment individually. During each session the consultee viewed a 10 minute videotaped vignette of a problem student in a classroom. They were instructed to view the tape carefully and imagine that they were a teacher with this student in their class.

Instructions were identical for all subjects. For the first two sessions subjects were told the following. "You are about to view a 10 minute long video tape of a secondary school classroom. One student in this class clearly displays a behavior problem. Please watch carefully and let yourself imagine that you are the teacher of this class. After viewing the tape you will be asked to answer questions about what you observed. You will then meet with a psychological consultant to discuss the problem observed on
the tape. During this time remember to imagine that you are the teacher of this class. Following 20 minutes of consultation you will again be asked to respond to questions about the problem observed on the video tape."

Following their observation of the video taped presentation, consultees were given a written form to complete, with questions similar to consultation request forms similar to those used in actual school settings. This form asked the consultee to describe in detail the problem just viewed on the video tape and also to describe a specific remedial plan for dealing with this problem (Appendix B). These were brief, open-ended, essay type questions to avoid giving subjects hints of what exactly was being pulled for by the questions. For the first and second sessions this was followed by 20 minutes of one of three experimental conditions of interaction between a consultant and the consultee. These interactions were audio taped as a check on what type of intervention actually occurred. At the end of this 20 minute condition consultees were asked to respond to identical written questions. These questions again asked them to describe the problem viewed and a remedial plan for dealing with the problem. For the third session, consultees viewed the video tape and then filled out the written form.

They were all given identical instructions, again asking them to carefully view the video tape while imagining that
they were the teacher of this class. They were told that they would then be asked to respond to written question about what they observed on the video tape. They were instructed that consultation would not be received on this problem. Following their completion of the written responses describing the problem viewed and a possible remedial plan, the experiment ended. Consultees who did not complete all three sessions were dropped from the study. Attrition was approximately equal across groups.

**Stimuli**

There were six different video taped vignettes, each illustrating a different type of behavior problem, and consultees viewed a different tape each session. Each tape showed a secondary school classroom. All tapes consisted of a female teacher and her male and female students. One student on each tape clearly presented a problem behavior.

These black and white video tapes were produced specifically for consultation research purposes and are not commercially available. Actual teachers and students were utilized to simulate real-life classroom scenes. These teachers and students role played specific classroom scenes with one student behaving in a specific problematic way. There were slightly fewer students seen on the tape than in an average classroom size. This was due to cinematographic reasons of enabling the viewer to clearly see close-ups of the specific students, rather than a distant camera angle.
showing an entire class of 30 students. Although only simulations, these tapes were considered to authentically portray typical classroom scenes as judged by numerous teachers, students, and psychologists who have reviewed them. The balanced distribution of the tapes across experimental conditions and sessions ensured that participants in each group had equivalent stimuli from which their behavioral responses were judged.

One video taped vignette showed a male student entering class late. He talked to other students before sitting down at his desk. A few minutes later he walked over to the window and opened it, interrupting the teacher's presentation. When asked to sit down and listen to the lesson, he responded in a verbally obnoxious manner. The remainder of the tape displayed similar behaviors. He got out of his seat numerous times and was slow to obey the teacher's instructions that he sit down.

A second video tape displayed a female student who frequently got out of her seat during a written class examination. She walked to the teacher's desk to ask questions about the test. While out of her seat she looked at other student's tests in order to see their answers. The teacher repeatedly told her to keep her eyes on her own paper. Other students responded by trying to conceal their work and not letting her see their papers.
A third video tape illustrated a male student who would not participate in a small, class discussion. Ten students were seated in desks in a circle discussing issues about drug abuse. All of the other students articulated cogent arguments concerning the issue of drug abuse. The target student sat quietly, staring blankly into space. He did not participate until specifically asked a question by the teacher. He then spoke about an unrelated topic as if he were disoriented to what was taking place around him.

The fourth video tape showed a female who was asked by the teacher to stay after class. After class the teacher began asking her about why her previously excellent grades had dropped. The girl responded that she did not want to talk about it and that it was unimportant. After further probing by the teacher, the girl discussed family problems and that she had recently begun a job, working late at night. The teacher expressed concern over her grades and the girl responded that she did not care what the teacher thought.

A fifth video tape was of a large male student who stayed in the class after other students had exited. He went up to the teacher and began asking her about her personal life. She responded by passively trying to appease him. He then asked her to go out on a date with him. When she said no, he became more insistent and intimidating trying to talk her into going out with him.
The sixth video tape displayed a girl who was not paying attention to the teacher's verbal instructions. She talked to other students next to her, giggled, and threw an eraser at a classmate. When the teacher's instructions were completed, the rest of the class began work on the assignment. She did not know what it was and began asking the teacher and other students what to do. After much questioning and getting up out of her seat, she finally stated that she felt ill and asked to go to the nurse's office.

Treatments

Control. Twelve consultee subjects did not receive consultation following their viewing of video tape. They completed the written form asking them to describe the problem and a possible remedial plan, as did the other groups, but in between these two measurement points they did not receive consultation. They met with a consultant and received the same amount of interaction with the consultant as other groups, but the consultant focused the conversation away from the behavior problem viewed on the video tape. Spot checks on audio tapes of these consultant-consultee interactions revealed that consultation did not occur. Topics discussed included such things as the subject's major, hobbies, the weather, and other topics focused away from the issue of the problem observed on the video tape. This group received consultant attention but not actual consultation. This was the attention-control group.
Consultation with Observation. Ten consultee subjects each viewed the video tape of the problem behavior along with the consultant. During the 20 minute periods between filling out the written forms describing the problem and a possible remedial plan, the consultant engaged the consultee in consultation. Consultation was based on Meyers' mental health model of consultation. This consisted of first building rapport with the consultee. Next, the consultant elicited the consultee's behavioral description of the classroom problem. The consultant reflected, summarized, and clarified. Consultant and consultee then explored possible classroom environmental contributors to the behavior, such as other students' behavior. Finally, consultants assisted the consultee in deciding upon an appropriate remedial plan to reduce the problem behavior.

Spot checks on audio tapes of this consultant-consultee interaction revealed that conversation was focused on these issues. This consultation treatment provided an analogue of the client-centered case consultation model (Conoley & Conoley, in press). This treatment was similar to the type of consultation conducted in schools when a consultant has done a classroom observation of the problem prior to the consultation session.

Consultation without Observation. This treatment condition consisted of thirteen consultee subjects and was similar to the above condition in every way except that the
consultant did not view the video tape with the consultee. This represented an analogue condition to the most common type of school consultation in which the consultant relies solely upon the consultee for information about the problem.

Dependent Measures

Content analyses were performed on the consultee's problem descriptions and remedial plans as attained from the written forms which they completed. Three independent raters, uninformed as to the hypotheses of this study, were trained to rate each written form for the precision of the problem description and quality of the remedial plan.

Raters were trained to conduct the content analysis scheme demonstrated by Bergan and Tombari (1975, 1976) and Conoley and Conoley (in press). This involved the raters reading responses to each question and categorizing statements in the response. The first question answered by consultees was in regard to describing the problem observed on the video tape. Raters looked for specific clauses of statements that identified behavioral antecedents, consequents, frequency, duration, observable behaviors, and factors maintaining the behavior.

Observable behaviors were defined as clauses identifying an overtly observable behavior. For example, "Johnny got up out of his seat" is an observable behavior. Behavioral antecedents were defined as clauses referring to events immediately preceding the behavior. For example, "Johnny
hit Susie after the teacher turned her back to the class" illustrates the teacher turning her back as an antecedent to the behavior. Consequents referred to clauses identifying the result of the problem behavior. An example is "The class laughed when Johnny threw the eraser." The class's laughter was the consequent. Frequency referred to clauses identifying how many times an observable behavior occurred. For example, "Johnny got out of his seat twice" identifies frequency. Duration referred to clauses about how long the behavior lasted. An example is "Johnny was out of his seat for about two minutes." Factors maintaining the problem behavior refer to clauses about the classroom environment that contributed to the behavior. For example, "The students were teasing Johnny" represents a contributing factor.

Remedial plan statements were content analyzed along the following factors. These were the number of options suggested, spheres tapped, evaluation plans, relationship of the plan to the problem, and feasibility of the plan. Number of options suggested referred straightforward to how many different possible solutions were suggested. Spheres tapped referred to how many behavioral spheres were addressed by the plan. For example, a plan might suggest that the teacher praise Susie for turning in her assignment early and then allow her to pick a magazine from the class library to read. If she distracted other students, however, she would be punished by sending her out of the room. Such a plan
incorporates the affective sphere (praise), the intellectual sphere (allowing her to read a magazine of interest to her), and the overt behavior sphere (physical banishment from the classroom). Evaluation plans referred to whether or not a means of evaluating the effectiveness of the plan was included.

The relationship of the plan to the problem and the feasibility were less clearly defined. They were ratings on a scale of 1 to 5 points based on the raters judgment. For all other categories of clauses, each time a statement included a clause referring to different behaviors, antecedents, options, and so forth, a point was tallied for that clause. Sums of tallies for the problem description yielded the problem identification score. Sums of tallies plus the two ratings on the 1 to 5 point scale for remedial plan descriptions yielded the remedial plan score.

Raters were trained by practice analyzing responses to these same questions from another study. The different raters practiced on the same responses then compared results with each other and the trainer. Their interpretations of which category a clause fell into became refined and congruent with each other after several practice ratings and discussion among themselves about discrepancies. After raters seemed to feel competent at their judgments, a reliability measure was computed on their scoring. Ratings on 7 samples by each rater, without discussion among
themselves yielded a reliability of scores of .91. At that point it was determined that they had mastered the task, and they were given the actual responses from this study to content analyze.

**Design**

To examine the hypotheses of this study, the three groups were contrasted along the following three measurement points. The first measures taken during the first session represented pre-test measures of problem description and remedial plans abilities prior to consultation or attention control. The second measurement point was the measures taken at the end of session two, or post measures following two sessions of consultation or control. The third measurement point was at the only measures taken during session three, the generalization session without consultation or attention interventions.

For the primary purpose of this study, examining the generalization of effects of consultation upon consultees' problem identification and remedial plan skills, scores for each group were contrasted at the session three measurement point, the generalization session. It was hypothesized that scores for both treatment groups would be significantly higher than for the control group at the session three measurement point, while not significantly different from each other or the control at the pre-measure. The third session in which no consultation was received, was assumed to represent an analogue of when a teacher faces a behavior problem.
in a class and must deal with it alone. If effects generalized as expected, subjects who received the consultation intervention should be better able to identify the problem and generate a remedial plan than control subjects who received no consultation.

The additional purposes of this study were examined from the same statistical analysis. To examine the effectiveness of consultation in the acquisition of problem identification and remedial plan skills, the three groups were compared to each other at the post-test measurement point, measurement point two. It was hypothesized that both treatment groups would show greater problem identification and remedial plan scores immediately following two consultation sessions than the control group following two attention-control sessions. Within this same design the differences between consultation with and without observation of the problem by the consultant, and each as compared to the control group, were examined for both the effectiveness of consultation and the generalization of effects of consultation.

Results

Inter-rater reliability for the raters judging the written problem identification and remedial plan descriptions did not fall below .82 as calculated by Winer's (1971) estimate of reliability of measurements. A Pearson's product moment correlation was computed on pairs of consultee's scores on the two dependent measures in order to
determine if each measure tapped different information. For measurement point one, the pre-measure, correlation between dependent measure scores was \( r = .21, p > .10 \).

For measurement point two, the post-measurement point, correlation between scores was \( r = .14, p > .10 \).

At measurement point three, the generalization measurement point, the correlation between scores was \( r = .22, p > .10 \).

Scores on the problem identification measure ranged from 1 to 15. Remedial plan scores ranged from 4 to 26. Means and standard deviations for problem identification and remedial plan scores are shown in Table 1. (Appendix D).

A 3 (interventions) x 3 (sessions) repeated measures analysis of variance (ANOVA) was computed on each dependent measure. For the problem identification scores, a significant time effect, \( F(2,64) = 4.55, p < .01 \), and a significant interaction effect, \( F(4,64) = 5.06, p < .001 \), but not a significant treatment effect, \( F(2,32) = 1.59, p > .10 \), were found as shown in Table 2. (Appendix E). The 3 x 3 repeated measures analysis of variance for the remedial plan scores yielded a significant time effect, \( F(2,64) = 11.73, p < .001 \), but not a significant interaction effect, \( F(4,64) = 1.54, p > .05 \), or a significant treatment effect, \( F(2,32) = 1.89, p > .05 \), as shown in Table 2. (Appendix E).

The interaction effect, as illustrated in Figure 1. (Appendix I) for the problem identification scores was further analyzed using Duncan's (1955) multiple range test.
to compare the means for the three intervention conditions at each of the times sampled. This required computing a one-way analysis of variance across groups at each measurement point and utilizing the within groups error term for the Duncan's test. As shown in Table 3. (Appendix F), no significant differences were found between the three groups at the first time sampled, the pre-measure. For the second time sampled, the post measure, the means of scores for the consultation without observation group was significantly higher than for the attention-control group (p < .05), but not significantly different from the consultation with observation group (p > .05). Means of scores for the consultation with observation group fell just short of being significantly different than the control group (p < .15). For the third measurement point, the generalization session, means of scores for both consultation groups, with and without observation, were significantly higher than for the attention-control group (p < .05), and not significantly different from each other (p > .05).

To further analyze the significant time effect revealed by the ANOVA on problem identification scores, Figure 1., Duncan (1957) multiple range tests for correlated means were conducted. This Duncan's test utilized the residual error term from the original 3 x 3 ANOVA. Means of scores were compared for each intervention across times sampled. As shown in Table 4. (Appendix G), means of problem identification scores
for both consultation groups were higher at measurement points two and three than at measurement point one. For both consultation groups, scores were significantly higher at point two, \( p < .01 \) and at point three, \( p < .01 \), than at point one, but not significantly different between point two and point three, \( p > .05 \).

The consultation with observation group had a significantly increased variance at measurement point three, as indicated by Barlett's test for homogeneity of variance, \( F = 4.05, p < .05 \). Except for this group at this point, all other groups and measurement points had homogeneity of variance.

Means of scores for the control group were not significantly different between points one and two and between points two and three. However, they were significantly lower at point three than at point one, \( p < .01 \).

As illustrated in Figure 1., the interaction effect is accounted for by no significant differences between scores for each group at the first time sampled, but significant differences between control and one treatment group at measurement point two, and between control and both treatment groups at measurement point three. The post hoc analysis for the significant time effect reveals that both treatment groups had significant increases in scores over time while the control group did not. The control group
decreased by measurement point three as compared to pre-measures.

Duncan multiple range tests on correlated means were computed on the remedial plan descriptions in order to examine the significant time effect. As shown in Table 5. (Appendix H), results indicated that both treatment groups significantly improved from measurement points one to two. The without observation group, showed an increase in remedial plan score means from measurement points one to two, \((p < .01)\). Scores also increased across these two measurement points for the with observation group, \((p < .01)\). There were no significant differences between scores at points one and two for the control group, \((p > .05)\). Because no interaction effect was found, these results indicate that remedial plan scores were effected over time, but did not differ significantly between groups.

Discussion

The purpose of this study was to examine whether the effects of consultation upon consultees' problem identification and remedial plan skills generalize to a new similar situation. Generalization of effects is the major principle underlying the rationale for consultation as a psychological intervention. Yet, as mentioned, there has been no published empirical research addressing this question, and only one case study. It seems surprising that such a crucial aspect
of consultation has gone relatively unexamined, especially considering that other researchers in the field (Meyers, 1981; Mannino & Shore, 1979) have noted the paucity of such investigation. Nevertheless, it remained for the present study to initiate providing empirical evidence towards an understanding of this topic.

Prior to a discussion of the implications of the present study's findings an elucidation of the results is in order. The primary finding of this study and the major focus of the investigation was that both consultation interventions were more effective than attention-control in improving consultee's problem identification skills when faced with a novel situation. Following two sessions of consultation, consultees showed significantly increased skills in problem identification from their own pre-consultation level. Originally, both consultation groups were not significantly different than the control group in problem identification ability. After two sessions of consultation during which time control consultees received an equal amount of consultant attention, both consultation groups were superior to the control group in problem identification in a novel situation.

Following two sessions of consultation, both groups receiving consultation had significantly improved their problem identification skills as compared to pre-measures. Only the group in which the consultant did not observe the
video tape was there significantly greater problem description than the attention-control group. This result replicates the findings of Conoley and Conoley (in press) that following two sessions, consultation without observation is more effective than a control in improving consultees' problem identification skills while consultation with observation is not. Their speculation was that consultants who had not viewed the problem might be less sure than the consultants who had viewed the tape of what the best problem description might be. As a result, consultants who had not viewed the problem may have further probed and clarified with consultees. Consultants who had viewed the problem might have more readily conceptualized what the problem was themselves and elicited less information from consultees. Such an approach would have required less effortful cognitive processing by consultees. Similarly, if consultants knew about the problem they might feel less sensitive to the consultee's need to understand the problem and thus moved on to discussing problem solution.

Another explanation for significant superiority for one treatment group at the end of session two and not the other might be that the small sample size in this study and the Conoley and Conoley (in press) study may have limited the power of the statistics to find differences that might be apparent with larger sample sizes. This speculation is made because in both studies the consultation with observation group
approached being significantly different from the control group after two sessions of consultation and did not show a significantly different pattern than the consultation without observation group.

Both consultation groups maintained their level of problem identification skills a week later when faced with a new problem situation. During this same time period control consultees decreased in their problem identification skills, to the point where they were significantly less skilled than at the pre-measurement point. Similar downward slope of scores for a control consultation group (Figure 1.) was reported in a study by Conoley and Conoley (in press). It is speculated that control consultee's scores decreased because these subjects were not reinforced for their efforts.

The issue of controls decreasing in problem identification ability over time does raise issues to be considered in future research of this type. Perhaps the attention-control condition which focused the conversation away from the issue at hand was considered by consultees to be a failure on their part to produce the expected answers. They may have then altered their approach on problem identification and actually decreased their pre-measure level of ability. On the other hand, perhaps problem identification ability does decrease over time and consultation counteracts this effect. Alternative types of control procedures in future research might be considered to further
evaluate this issue. In addition to a control procedure similar to this study's a second control condition might utilize reflective listening. If subjects did feel that they were not being reinforced for their problem identification and remedial plan attempts, reflective listening would likely alleviate that problem.

Another finding of this study raises an issue for future examination. For problem identification scores, all groups had homogeneity of variance except for the consultation with observation group during the generalization session measurement point. This group's mean increased slightly, indicating that skill levels attained at point two were maintained in the new situation. The variance also increased, however, to the point that the group's scores were no longer homogeneous. This seems to indicate that there were individual differences in this group resulting in some consultees acquiring problem identification skills that generalized to a new situation while some did not. An issue for future research might be to examine what individual differences account for some consultees acquiring these skills while some do not.

The effect of a consultant's observation of the problem on consultee's problem identification skill acquisition and maintenance was also examined by this study. This issue has economic and time importance as well as effectiveness importance. Teachers may believe that a consultant cannot
really understand and help with a problem student in a classroom unless the consultant has observed the problem first hand (Conoley & Conoley, in press). Such classroom observations require time as well as possibly having an effect on outcomes of consultation. The findings of this study would suggest that observation of the problem by the consultant does not increase the effectiveness of consultation. In fact, the findings that the consultation without observation group was superior to the control group while the consultation with observation group was not, at the end of session two, suggests that observation may impede the effectiveness of consultation in the short run. Both approaches appeared equally effective, however, in facilitating consultees' skills in identifying the problem in a novel situation, and both were superior to a control group.

Consultees' abilities to generate remedial plans were not differentially affected by treatment. The significant time effect revealed by the analysis of variance indicated that remedial plan scores changed over time, but there was no overall significant differences between groups. Remedial plans have been less extensively used as a dependent variable to measure changes in consultation outcome research as compared to problem identification scores. Conoley and Conoley (in press) found that over two analogue sessions of consultation, remedial plans were not as sensitive of a
measure in distinguishing between treatment and control groups as were problem identification scores, although changes over time were observed which were similar to the findings of this study. As they noted, two sessions of consultation may not be a long enough time to see significant changes in remedial plan descriptions.

The analogue nature of this study probably had a negative effect on all consultees's abilities to generate remedial plans. Intervention in a classroom directed at a behavior problem involves several factors such as the classroom environment, school policies, administrative support, and the individual nature of the problems. Consultees in an analogue study such as this, would not be as aware of the overall classroom and school environment as an actual teacher in the situation would.

Another difficulty with the use of remedial plans as a dependent measure is the difficulty in quantifying such plans. Developing remedial plans in a classroom requires creativity. Not knowing the actual classroom and school setting in an analogue study creates difficulty in measuring the feasibility of a plan. Problem identification on the other hand, being scored on specific observable behavioral criteria, appears more easily quantifiable, and to have more power as a measurement.

The use of remedial plan descriptions as a dependent measure is a relatively new approach in the young field of
consultation research. Rationally, it would seem that remedial plans would be a criterion on which to assess the effects of consultation. Recalling Bergan and Tombari's (1975) conceptualization of consultation as a problem solving process, problem identification and remedial planning are two distinct phases in the process. They found that the problem identification phase was the most predictive of successful problem solution. This study's findings that problem identification and remedial plan scores were not highly correlated with each other further supports the view that these are two independent phases of consultation. A puzzling question is raised, however. If consultation is a sequence of steps in a problem solving process, why are effects on consultee's remedial plans not similar to effects on the first phase of the process, problem identification. As noted, it could be accounted for by lack of power of the measuring techniques employed to measure remedial plans. It also could be that remedial planning occurs at a later time than during or immediately following the consultation session. Another possibility is that the idea of viewing problem identification as predictive of problem solution may be incorrect, if remedial planning is not observed to follow. Whatever the answer, this issue poses an interesting if not vital question in consultation research which measures effects by conceptualizing consultation as a problem solving process.
The present investigation provided an important contribution to the field of consultation. The principle of generalization in consultation is of such paramount importance, that for consultation to be considered a viable vehicle for intervention, this principle must be demonstrated. This study did support that principle as far as demonstrating the generalization of consultees' problem identification skills.

This study had methodological strengths which increased the likelihood that results could be attributed to the experimental manipulations. These strengths included utilizing subjects and circumstances that fell within narrow parameters. The homogeneity of consultee's teaching experience, the comparison of control and experimental interventions, and ensuring that presenting problems were the same for all groups were only part of the rigorous methodology employed.

As a rare empirical investigation of the generalization of effects of consultation, as measured by problem identification skills and remedial plans, this study obviously does not offer conclusive evidence supporting this principle. As any worthwhile study, it has heuristic value and raises questions as well as answering questions. One apparent question concerns the applicability of these findings to real-life situations. This study utilized a very select sample of subjects and circumstances not
representative of the variability in actual school settings.

Included in this study's limitations were the absence of male consultees, actual experienced teachers, and an older age range of consultees and consultants. While this study lend support to the generalization of these specific skills to new situations, the generalization of effects across longer periods of time also requires demonstration. Additionally, analogue studies, while often increasing internal validity, may do so at the expense of external validity. This study is vulnerable to criticism on those grounds.

Future studies are required to further an understanding of the generalization of consultation. Attempting to incorporate the strengths of this study's experimental rigor in a real-life setting and with actual teachers would provide valuable information concerning the generalization of consultation.
Appendix A

USE OF HUMAN SUBJECTS

INFORMED CONSENT

NAME OF SUBJECT:

I hereby give consent to Dr. Collie Conoley to perform or supervise the following investigational procedure or treatment:

An investigation examining the effectiveness of psychological consultation in regards to a classroom teacher's behavior problem student.

I have (seen, heard) a clear explanation and understand the nature and purpose of the procedure or treatment; possible appropriate alternative procedures that would be advantageous to me (him, her); and the attendant discomforts or risks involved and the possibility of complications which might arise.

I have (seen, heard) a clear explanation and understand the benefits to be expected. I understand that the procedure or treatment to be performed is investigational and that I may withdraw my consent for my (his, her) status. With my understanding of this, having received this information and satisfactory answers to the questions I have asked, I voluntarily consent to the procedure or treatment designated in Paragraph 1 above.

SIGNED: ________________________ SIGNED: ________________________
Witness Subject

or

SIGNED: ________________________ SIGNED: ________________________
Witness Person Responsible

Instructions to persons authorized to sign:
If the subject is not competent, the person responsible shall be the legal appointed guardian or legally authorized representative.
If the subject is a minor under 18 years of age, the person responsible is the mother or father or legally appointed guardian.
If the subject is unable to write his name, the following is legally acceptable: John H. (His X Mark) Doe and two (2) witnesses
Appendix B

Name.............................. Date....................

Imagine that you are the teacher in the classroom scene just observed on the video tape.

1. Please describe in detail the problem behavior exhibited by the student observed on the video tape.
Appendix B--Continued

Still imagining that you are the teacher in the classroom just observed on the video tape,

2. Please describe in detail a possible plan to deal with this student's problem behavior.
Appendix C

Content Analysis of Consultation Data

<table>
<thead>
<tr>
<th>Name</th>
<th>Condition</th>
<th>Session</th>
</tr>
</thead>
</table>

1. Problem Identification

<table>
<thead>
<tr>
<th>Antecedents</th>
<th>Consequents</th>
<th>Frequency</th>
<th>Duration</th>
<th>Observables</th>
<th>Contributing Factors</th>
<th>Total</th>
</tr>
</thead>
</table>

2. Remedial Plan Description

Flexibility

<table>
<thead>
<tr>
<th>Number of Suggestions</th>
<th>Spheres Tapped</th>
<th>Method of Evaluation</th>
<th>Sub Total</th>
</tr>
</thead>
</table>

Feasibility

<table>
<thead>
<tr>
<th>Relation of Plan to Problem</th>
<th>Feasibility of Implementation</th>
<th>Sub Total</th>
<th>Total</th>
</tr>
</thead>
</table>

Comments
## Appendix D

### Table 1.

Means and Standard Deviations for Problem Identification and Remedial Plan Scores

<table>
<thead>
<tr>
<th>Measurement Point</th>
<th>Control M</th>
<th>Control SD</th>
<th>Consultation With Observation M</th>
<th>Consultation With Observation SD</th>
<th>Consultation Without Observation M</th>
<th>Consultation Without Observation SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Identification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start of Session One</td>
<td>5.42</td>
<td>2.15</td>
<td>3.90</td>
<td>2.08</td>
<td>4.08</td>
<td>1.90</td>
</tr>
<tr>
<td>End of Session Two</td>
<td>4.42</td>
<td>2.28</td>
<td>6.30</td>
<td>3.06</td>
<td>6.92</td>
<td>3.12</td>
</tr>
<tr>
<td>Start of Session Three</td>
<td>3.67</td>
<td>1.61</td>
<td>6.40</td>
<td>4.08</td>
<td>6.62</td>
<td>2.50</td>
</tr>
<tr>
<td>Remedial Plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start of Session One</td>
<td>11.83</td>
<td>2.70</td>
<td>10.50</td>
<td>2.37</td>
<td>11.46</td>
<td>1.90</td>
</tr>
<tr>
<td>End of Session Two</td>
<td>12.67</td>
<td>2.06</td>
<td>13.80</td>
<td>2.25</td>
<td>15.46</td>
<td>3.99</td>
</tr>
<tr>
<td>Start of Session Three</td>
<td>11.33</td>
<td>3.47</td>
<td>11.80</td>
<td>3.05</td>
<td>13.08</td>
<td>2.43</td>
</tr>
</tbody>
</table>
### Appendix E

Table 2.

Repeated Measures Analysis of Variance for Problem Identification and Remedial Plan Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem Identification</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>37.42</td>
<td>2</td>
<td>18.71</td>
<td>1.59</td>
</tr>
<tr>
<td>Error</td>
<td>376.82</td>
<td>32</td>
<td>11.78</td>
<td></td>
</tr>
<tr>
<td>Session</td>
<td>38.12</td>
<td>2</td>
<td>19.06</td>
<td>4.55*</td>
</tr>
<tr>
<td>Intervention X Session</td>
<td>84.73</td>
<td>4</td>
<td>21.18</td>
<td>5.06**</td>
</tr>
<tr>
<td>Error</td>
<td>267.98</td>
<td>64</td>
<td>4.19</td>
<td></td>
</tr>
<tr>
<td><strong>Remedial Plan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>44.71</td>
<td>2</td>
<td>22.35</td>
<td>1.89</td>
</tr>
<tr>
<td>Error</td>
<td>378.19</td>
<td>32</td>
<td>11.82</td>
<td></td>
</tr>
<tr>
<td>Session</td>
<td>134.07</td>
<td>2</td>
<td>67.04</td>
<td>11.73**</td>
</tr>
<tr>
<td>Intervention X Session</td>
<td>35.27</td>
<td>4</td>
<td>8.82</td>
<td>1.54</td>
</tr>
<tr>
<td>Error</td>
<td>365.90</td>
<td>64</td>
<td>5.72</td>
<td></td>
</tr>
</tbody>
</table>

* p < .01  
**p < .001
Appendix F

Table 3.
Duncan Multiple Range Tests on Interaction Effect for Problem Identification Scores

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Steps Apart</th>
<th>Difference ($\bar{x}_B - \bar{x}_A$)</th>
<th>$\div$ SE</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Point 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN vs. WI</td>
<td>3</td>
<td>5.42-3.90 = 1.52</td>
<td>.611</td>
<td>2.49</td>
</tr>
<tr>
<td>CN vs. WO</td>
<td>2</td>
<td>5.42-4.08 = 1.34</td>
<td>.571</td>
<td>0.30</td>
</tr>
<tr>
<td>WO vs. WI</td>
<td>2</td>
<td>4.08-3.90 = 0.18</td>
<td>.600</td>
<td>0.30</td>
</tr>
<tr>
<td>Measurement Point 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WO vs. CN</td>
<td>3</td>
<td>6.92-4.42 = 2.50</td>
<td>.795</td>
<td>3.14</td>
</tr>
<tr>
<td>WI vs. CN</td>
<td>2</td>
<td>6.30-4.42 = 1.88</td>
<td>.852</td>
<td>2.21</td>
</tr>
<tr>
<td>WO vs. WI</td>
<td>2</td>
<td>6.92-6.30 = 0.62</td>
<td>.845</td>
<td>0.73</td>
</tr>
<tr>
<td>Measurement Point 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WO vs. CN</td>
<td>3</td>
<td>6.62-3.67 = 2.95</td>
<td>.789</td>
<td>3.74</td>
</tr>
<tr>
<td>WI vs. CN</td>
<td>2</td>
<td>6.40-3.67 = 2.73</td>
<td>.845</td>
<td>3.23</td>
</tr>
<tr>
<td>WO vs. WI</td>
<td>2</td>
<td>6.62-6.40 = 0.22</td>
<td>.838</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Note: CN = Control Group
      WO = Without Observation Group
      WI = With Observation Group

*p < .05
Appendix G

Table 4.

Duncan Multiple Range Tests for Correlated Means on Significant Time Effect for Problem Identification Scores

<table>
<thead>
<tr>
<th>Measurement Points</th>
<th>Steps Apart</th>
<th>Difference $(\bar{x}_B - \bar{x}_A)$</th>
<th>SE</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 vs. 3</td>
<td>3</td>
<td>5.42 - 3.67 = 1.75</td>
<td>.341</td>
<td>5.13 **</td>
</tr>
<tr>
<td>1 vs. 2</td>
<td>2</td>
<td>5.42 - 4.42 = 1.00</td>
<td>.341</td>
<td>2.93</td>
</tr>
<tr>
<td>2 vs. 3</td>
<td>2</td>
<td>4.42 - 3.67 = 0.75</td>
<td>.341</td>
<td>2.20</td>
</tr>
<tr>
<td>Without Observation Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 vs. 1</td>
<td>3</td>
<td>6.92 - 4.08 = 2.85</td>
<td>.328</td>
<td>8.68 **</td>
</tr>
<tr>
<td>3 vs. 1</td>
<td>2</td>
<td>6.62 - 4.08 = 2.54</td>
<td>.328</td>
<td>7.74 **</td>
</tr>
<tr>
<td>2 vs. 3</td>
<td>2</td>
<td>6.92 - 6.62 = 0.31</td>
<td>.328</td>
<td>0.95</td>
</tr>
<tr>
<td>With Observation Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 vs. 1</td>
<td>3</td>
<td>6.40 - 3.90 = 2.50</td>
<td>.374</td>
<td>6.68 **</td>
</tr>
<tr>
<td>2 vs. 1</td>
<td>2</td>
<td>6.30 - 3.90 = 2.40</td>
<td>.374</td>
<td>6.42 **</td>
</tr>
<tr>
<td>3 vs. 2</td>
<td>2</td>
<td>6.40 - 6.30 = 0.10</td>
<td>.374</td>
<td>0.27</td>
</tr>
</tbody>
</table>

** p < .01
### Table 5.

**Duncan Multiple Range Tests for Correlated Means on Significant Time Effect for Remedial Plan Scores**

<table>
<thead>
<tr>
<th>Measurement Points</th>
<th>Steps Apart</th>
<th>Difference $(\bar{x}_B - \bar{x}_A)$</th>
<th>$\div$</th>
<th>SE</th>
<th>q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td>2 vs. 3</td>
<td>3 12.67-11.33 = 1.30 0.399</td>
<td></td>
<td></td>
<td>3.26</td>
</tr>
<tr>
<td></td>
<td>2 vs. 1</td>
<td>2 12.67-11.83 = 0.83 0.399</td>
<td></td>
<td></td>
<td>2.08</td>
</tr>
<tr>
<td></td>
<td>1 vs. 3</td>
<td>2 11.83-11.33 = 0.50 0.399</td>
<td></td>
<td></td>
<td>1.25</td>
</tr>
<tr>
<td>Without Observation Group</td>
<td>2 vs. 1</td>
<td>3 15.46-11.46 = 4.00 0.383</td>
<td></td>
<td></td>
<td>10.44 **</td>
</tr>
<tr>
<td></td>
<td>2 vs. 3</td>
<td>2 15.46-13.08 = 2.38 0.383</td>
<td></td>
<td></td>
<td>6.21 **</td>
</tr>
<tr>
<td></td>
<td>3 vs. 1</td>
<td>2 13.08-11.46 = 1.62 0.383</td>
<td></td>
<td></td>
<td>4.23 **</td>
</tr>
<tr>
<td>With Observation Group</td>
<td>2 vs. 1</td>
<td>3 13.80-10.50 = 3.30 0.437</td>
<td></td>
<td></td>
<td>7.55 **</td>
</tr>
<tr>
<td></td>
<td>2 vs. 3</td>
<td>2 13.80-11.80 = 2.00 0.437</td>
<td></td>
<td></td>
<td>4.57 **</td>
</tr>
<tr>
<td></td>
<td>3 vs. 1</td>
<td>2 11.80-10.50 = 1.30 0.437</td>
<td></td>
<td></td>
<td>2.97</td>
</tr>
</tbody>
</table>

**p < .01**
Appendix I

Figure 2.

Remedial Plan Scores

Means of remedial plan descriptions across time.
Appendix J

Figure 1.

Problem Identification Scores

Means of problem identification scores across time.
References


Birney, D. Consulting with administrators: the consultee-centered approach. In J. C. Conoley (Ed.) Consultation in


Mannino, F. V., & Shore, M. F. Trainee research in consultation: a study of doctoral dissertations. Paper
presented at the national conference on training in consultation, McGill University, PQ., 1980.


Savage, W. W. Consultative services to local school systems. Midwest Administration Center, University of Chicago, 1959.


Teitlebaum, D. I. An investigation of an experimental program of assistance for newly appointed teachers in certain schools in New York City. Doctoral dissertation,


