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A STUDY OF THE RELATIONSHIP AMONG TEACHER, PROCESS, AND OUTCOME VARIABLES WITHIN SCHOOL-BASED CONSULTATION

A Dissertation
Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree Doctor of Philosophy in The Department of Psychology

by
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ABSTRACT

This study investigated the relationship among several teacher, process, and outcome variables within school-based consultation. A total of 32 consultant-consultee dyads participated in the study until completion of a problem identification interview, a problem analysis interview, and a follow-up session. Four types of data were collected. First, sessions were tape recorded and coded to examine the effect of an "expert" versus a "collaborative" interaction style. Second, teachers completed paper and pencil measures pertaining to (a) attributions of child behavior, (b) preferred service delivery, (c) severity of behavior problem, (d) consultant verbal interactions, (e) treatment acceptability, and (f) teacher satisfaction. Third, direct observation measures of treatment integrity and child behavior change were conducted. Fourth, permanent products reflecting intervention implementation were also examined as a means of determining degree of treatment integrity.

The measurement of these variables permitted an examination of the effects of teacher variables (e.g., attributions of causality), intervention variables (i.e., intervention acceptability, intervention complexity), child variables (e.g., behavior problem severity), consultant variables (i.e., expert vs. collaborative style of interaction) on treatment integrity, the outcome variable of primary interest. The relationship between treatment
integrity and child behavior change was also of interest. Treatment integrity was operationalized using multiple criteria (i.e., direct observation of immediate consequences, examination of permanent products, teacher recording of target behavior).

Overall, the integrity with which the interventions were implemented was low. The results suggested consultee education level was positively related teacher recording of the target behavior. On the other hand, consultee years of experience was negatively related to utilization of the permanent product.

Contrary to the literature, consultees receiving an expert or "prescriptive" approach to consultation were observed to implement the immediate consequence more often than consultees receiving a collaborative approach (Gutkin & Curtis, 1990). With regard to intervention plan variables, a positive relationship was found between the complexity of the intervention and the degree to which the consequences were implemented. Observed integrity was also related to the degree of positive behavior change and teacher satisfaction. Results of the study are discussed in terms of implications for school psychologists in consultation research and practice.
INTRODUCTION

Fundamental to the practice of school psychologists, consultation within the schools typically includes a school psychologist or behavioral consultant interacting with a teacher or parent who is requesting assistance with a child. The scientist-practitioner model (Rainey, 1950) has influenced professional practice in psychological consultation for many years. Moreover, research findings attempt to guide the behaviors of educational and mental health professionals in their everyday practice with teachers, parents, and other professionals. However, reviews of consultation research have criticized the soundness of methodologies employed in the past, as well as the relevancy of information it provides to practitioners (e.g., Bergan & Kratochwill, 1990; Gresham & Kendall, 1987; Gresham & Noell, 1993; Kratochwill, Sheridan, & VanSomeren, 1988). Thus, one finds it easy to believe that school psychologists have learned to disregard research data in their daily practice (Bardon, 1987).

One of the most significant, yet least prominent, weaknesses of consultation research is its failure to operationally define the processes that occur during consultation, as well as to define the term consultation itself (Gutkin, 1993). Too often, researchers have indicated the particular model of consultation (e.g., behavioral, mental health, organizational) employed by
consultants, rather than defining the specific components of the model. And, even more often, researchers have failed to define and measure the behaviors of consultants during consultation. Without the inclusion of operationally defined interactions and measurement of the integrity of consultation processes, we are forced to question our results.

A second methodological flaw in consultation focuses on the issue of treatment integrity (i.e., the degree to which an intervention plan is implemented as planned; Sechrest, West, Phillips, Redner, & Yeaton, 1979). In recent years, writings pertaining to consultation have focused on the inclusion of measurements of treatment integrity in examining consultation outcomes. The reason, fundamental to intervention research, is that we cannot determine if changes in the dependent variable (e.g., child behavior) are due to manipulations of the independent variable (e.g., an intervention) when there is no monitoring of implementation of the independent variable (Sechrest et al., 1979). Likewise, if behavior change does not occur and intervention integrity has not been measured, then the question arises: Was the result due to an ineffective treatment or an effective treatment implemented with poor integrity (Gresham, 1989)? The problem here lies in the notably low occurrence of treatment integrity data existing in consultation studies.
A third problem existing in the consultation literature is the lack of measurement in behavioral outcome data. Research has been descriptive in nature and has focused on attitudinal data measured by paper-and-pencil questionnaires rather than direct observation of consultee, child, and consultant behavior (Gutkin, 1993). Although perceptions may be useful to some degree, empirical evidence has shown inconsistencies between attitudinal and behavioral changes (Raven & Rubin, 1983).

Another dilemma within the field of school-based consultation is that researchers have relied on univariate rather than multivariate methodologies (Gresham & Noell, 1993; Gutkin, 1993). Few studies to date have focused on the measurement of multiple dependent variables; therefore, the inclusion of several variables, in order to examine interactions in consultation, has been recommended for future studies (Gresham & Noell, 1993).

A final obstacle in consultation research lies in the insufficient data supporting the most widely held assumption in the practice of consultation; that the relationship between the consultant and consultee be collaborative (cf. Gutkin & Curtis, 1990). Although arguments have been advanced in support of a collaborative relationship (e.g., Babcock & Pryzwansky, 1983; Erchul, 1992; Sheridan, 1992), "collaboration" has never been operationally defined and measured.
In light of these problems, it is necessary that researchers conduct studies which are designed to examine the interaction of multiple variables. In order to extend our knowledge of consultation practice, the present study examined variables along the entire consultation sequence (i.e., from referral to intervention). In addition, this project attempted to address the methodological problems listed above. Before discussing the methodology, a brief review of the behavioral consultation model is presented below. Following that is a review of teacher, process, and outcome variables which influence consultation.

Behavioral Consultation

The behavioral consultation model has a substantial amount of empirical support in the literature (Martens, 1993). Primary reasons for its popularity among consultation researchers is its high degree of specificity in processes and outcomes (Kratochwill et al., 1988) and its foundations in behavior analysis (Martens, 1993). Most of the concepts and approaches associated with this model are outlined by Bergan (1977) and, more recently, Bergan and Kratochwill (1990).

This problem-solving model employs three stages: the Problem Identification Interview (PII), the Problem Analysis Interview (PAI), and the Problem Evaluation Interview (PEI). In general, the PII goals include: (a) identification of a target behavior in observable terms,
(b) specification of expected conditions surrounding the behavior, and (c) development of data collection procedures. This interview has often been recognized as the most critical of the three interviews (e.g., Bergan & Tombari, 1976).

The primary goals during the PAI consist of: (a) examining baseline data and establishing goals for behavioral change, (b) analyzing conditions surrounding the behavior, and (c) designing an intervention. Finally, the PEI focuses on: (a) determining whether intervention goals were met, (b) evaluating plan effectiveness, and (c) discussing modifications needed in the plan.

Research has established the overall effectiveness of behavioral consultation (e.g., Alpert & Yammer, 1983; Medway, 1979; Medway & Updyke, 1985). However, reviews of the literature have criticized consultation research due to its methodological problems (e.g., Gresham & Kendall, 1987). The following section will review selected areas of research within school-based consultation processes and outcomes. In this review, the focus will be on areas which are most likely to provide insights into the interactions between consultation participants and the planning and implementation of interventions in school-based consultation.

Consultation Processes and Outcomes

Reviews of the school-based consultation literature have shown numerous variables which may influence
consultation outcomes (e.g., Gresham & Kendall, 1987; Gresham & Noell, 1993; Witt, 1990a). The key variables affecting outcomes in consultation, adapted from Gresham & Noell (1993), are listed below:

(1) Consultant variables - levels of training, experience, theoretical orientation, verbal behavior in consultation, demographics, and previous success rate in consultation;

(2) Consultee variables - level of training, experience, classroom management style, attitudes toward consultation, knowledge of classroom interventions, attributions of the causes of student behavior, perceptions of severity of student behavior, referral rates for special education, referral rates for consultation, and demographics;

(3) Student variables - age and grade, gender, prior history of school problems, severity of prior school problems, family background variables, and demographics;

(4) Consultation plan variables - acceptability, time required, type of treatment, reported effectiveness, integrity of plan, goals of consultation, and strength of treatment;

(5) Ecological variables - classroom variables, school variables, school system variables, setting events, behavioral interrelationships, and environmental context of consultation.
According to Gresham and Kendall (1987), these key variables have not been investigated together in a single study in the consultation research. The following literature review will focus on four areas within school-based consultation: verbal interactions during consultation interviews, acceptability of intervention strategies and consumer satisfaction of consultation process, integrity of intervention implementation, and teacher attributions of the causes of child behavior. These areas have been identified as important variables to successful outcomes in consultation (e.g., Gresham & Kendall, 1987; Gutkin, 1993; Waguespack & Moore, 1993).

Verbal Interactions within Consultation

A major assumption in the consultation literature is that the interaction should be a collaborative endeavor between participants (cf. Gutkin & Curtis, 1990). However, this belief has recently been called into question based on a need to adequately define collaboration (Witt, 1990b), as well as research indicating positive outcomes when consultants are directive (e.g., Erchul & Chewning, 1990). In addition, conceptual and definitional inconsistencies in the literature have generated arguments in defense of the collaborative position (e.g., Sheridan, 1992), as well as in reconsideration of it (Fuchs & Fuchs, 1992). Since research data are lacking in support of a collaborative approach to school-based consultation, as well as in
providing an operational definition for such an approach, one cannot yield to a collaborative approach on conclusive empirical grounds. Therefore, a major consideration which consultants must face is whether to (or how to) provide consultation in a "collaborative" manner (which has been associated with a best practices approach) rather than an "expert" or prescriptive manner.

West, Idol, and Cannon (1989) distinguished among 10 different models of consultation. Two models which appear to lie on opposite ends of the "collaborative" continuum, are the "Collaborative" model (e.g., Idol, Paolucci-Whitcomb, & Nevin, 1986) and the "Medical" (or doctor-patient) model. The Collaborative model appears to be based on general principals of collaboration and consultation, while the Medical model is not based on any theory but includes general characteristics of the medical field.

Features of each model vary across four stages of consultation: problem identification, intervention recommendations, implementation of recommendations, and follow-up (West et al., 1989). In the Collaborative model, both the consultee and consultant identify the problem, while in the Medical model the consultant alone identifies the problem. With regard to intervention development and implementation, both consultee and consultant are involved in the Collaborative model. On the other hand, the Medical
model suggests that the consultee implements the intervention developed by the consultant. Finally, follow-up activities allow for the consultee and the collaborative consultant to engage in continuous monitoring of the intervention, while the Medical model consultant may only offer further advice when needed.

Research examining the preference and efficacy of a collaborative model within school-based consultation has primarily utilized survey methodologies (e.g., Babcock & Pryzwansky, 1983). When surveyed, teachers have clearly revealed a preference for a collaborative relationship with a consultant (e.g., Babcock & Pryzwansky, 1983; Pryzwansky & White, 1983). Teacher report appears to be one level in support of a collaborative model. However, as Witt, Erchul, McKee, Pardue, & Wickstrom (1991) noted "The mere indication of a preference, without actually having experienced the service, is insufficient evidence that teachers prefer a collaborative relationship" (p. 102).

In recent years, consultation research has focused on process variables in consultation, that is, on verbal interactions during actual interviews. Pioneered by researchers in the fields of psychotherapy, counseling, and family therapy (e.g., Patterson & Forgatch, 1985; Tracey & Ray, 1984), research in the area of face-to-face verbal interactions has been well-received in the school-based consultation literature (see Witt, 1990a).
Verbal interaction research in school-based consultation has provided some indirect support in favor of a collaborative model. Martens, Lewandowski, & Houk (1989) found that an increase in the number of consultee statements was positively related to consultee perceptions of consultation. However, research focusing on who is in control during consultative interactions has found opposite results. Findings have indicated that consultative interactions are typically controlled by the consultant and that these interactions are favored by teachers (Erchul, 1987; Erchul & Chewning, 1990; Martens, Deery & Gherardi, 1991; Witt et al., 1991). These investigators have interpreted these findings to mean that collaborative interactions are not perceived by teachers to be better, and are perceived, in most cases, to be less preferred (Erchul, 1987). This is an important finding which runs counter to the conventional notion that teachers prefer collaborative interactions.

A barrier to previous research on consultation is the existence of an ill-defined and broadly misunderstood variable - collaboration (Sheridan, 1992). Studies have indicated that interview control by the consultant and consultee input might be two components of a collaborative approach (e.g., Erchul & Chewning, 1990). However, this phenomenon, along with its counterpart (i.e., a directive or prescriptive approach) must be properly operationalized and defined before measurement is attempted.
A review of the school psychology literature has revealed only one empirical investigation actually testing a collaborative versus directive model of consultation. In Wenger's (1979) empirical investigation, teacher satisfaction and treatment integrity were examined within a "collaborative" versus "expert" (i.e., prescriptive) consultative relationship. The role of the collaborative consultant was to "involve the teacher in the process of determining the child's educational needs and in helping to develop strategies and techniques which the teacher could use in the classroom to help the child," while the role of the expert was to encourage teacher involvement only "to the extent of providing input, perceptions, and hypotheses" (Wenger, 1979, p. 128). In addition, the expert consultant developed the intervention and conveyed it to the teacher for implementation.

Results indicated, counter to Wenger's (1979) hypothesis, that teachers in the collaborative group were more satisfied with consultation services than teachers in the expert group. In addition, findings did not support his hypothesis that greater treatment integrity would result from teachers in the collaborative group. Results revealed no differences between the collaboration and expert groups with regard to implementation of the intervention. Although methodological problems existed with this study (e.g., no measurement of consultant
procedural integrity, self-report measurement of treatment integrity, lack of child behavior change measures), it appears to be a first in the investigation of differences between these two models of consultation.

**Teacher Acceptability and Satisfaction**

Two components which influence successful outcomes in consultation are: the consultee's acceptability of an intervention and the consultee's satisfaction of the consultation process. Both components are crucial in the examination of behavioral consultation outcomes. Should an intervention be unacceptable to a consultee, then it is unlikely that the intervention will be implemented as intended (Elliott & Busse, 1993). In addition, an unacceptable treatment and poor integrity of it will decrease the chances of a successful consultation outcome (i.e., child behavior change). Further, the collective result is likely to lead to little consumer (i.e., consultee) satisfaction of the consultation process.

Treatment acceptability was first defined by Kazdin (1981) as "judgements by laypersons, clients, and others of whether treatment procedures are appropriate, fair, and reasonable for the problem or client" (p. 49). Since treatment acceptability refers to the consumer's opinion of a treatment before its implementation, it is considered a pretreatment measure. Once an intervention has been conducted, the consumer's impressions of it or of the
entire process (e.g., consultation) is considered the *posttreatment* measure or consumer satisfaction.

The study of treatment acceptability should be considered valuable to practitioners because:

An individual's subjective evaluation of a treatment may affect whether it is implemented properly, whether it is effective (or perceived to be effective), the length of time it will be used or whether it will even be used at all. (Witt & Elliott, 1985, p. 25).

Most research has focused on pretreatment acceptability utilizing analogue situations and subjective rating scales, such as the Treatment Evaluation Inventory (TEI; Kazdin, 1980) and the Intervention Rating Profile (IRP; Witt & Martens, 1983). A brief summarization of the major findings on variables influenced by treatment acceptability is presented below.

The first set of variables is related to consultant behavior. Research has shown that the way in which a consultant presents an intervention can influence how acceptable it is perceived by another. In general, studies have demonstrated that the use of professional jargon (e.g., behavioral terms as opposed to humanistic) adversely influences the perceived ratings of intervention acceptability (e.g., Witt, Moe, Gutkin, & Andrews, 1984). In addition, research suggests that teachers prefer interventions that require minimal consultant involvement and that can be implemented in their classrooms (Rhoades & Kratochwill, 1992).
The second group of variables is related to treatment characteristics, child characteristics, and consultee background variables. Research has shown that the severity of the child's behavior is positively related to treatment acceptability; the more severe the child's problem, the more likely an intervention is rated as acceptable (e.g., Elliott, Witt, Galvin, & Peterson, 1984; Kazdin, 1980). A second finding is that teachers rate interventions as more positive if they are considered to take less time to prepare and implement; however, as the severity of the problem increases, the importance of time as a variable decreases (e.g., Elliott et al., 1984; Witt, Elliott, & Martens, 1984; Witt & Martens, 1983, 1988). A third finding related to intervention characteristics is that positive treatments (e.g., social praise, token economy) are consistently rated as more acceptable than reductive treatments (e.g., time out, response cost) (e.g., Elliott et al., 1984; Kazdin, 1980, 1981; Martens, Peterson, Witt, & Cirone, 1986; Witt, Elliott, et al., 1984). Finally, interventions described as effective (i.e., successful) are rated as more acceptable (e.g., Von Brock & Elliott, 1987).

Consultee background characteristics may also have an effect on treatment acceptability. Research has shown that an increase in teacher knowledge of behavioral principles has been positively related to intervention acceptability (e.g., McKee, 1984). In addition, the more experience a
teacher possesses, the less acceptable they perceive overall classroom interventions (e.g., Epstein, Matson, Repp, & Helsel, 1986).

In summary, variables influencing the acceptability of interventions (and the related satisfaction of consumers) are critical in consultation research because of their relationship to socially important outcomes (Wolf, 1978). Studies that examine the relationships among treatment acceptability, treatment integrity, and child behavior change in naturalistic settings are needed.

**Treatment Integrity**

One of the most important concepts related to school-based interventions is the issue of treatment integrity. In general, treatment integrity refers to whether the treatment is implemented as planned (Sechrest et al., 1979). The inclusion of treatment integrity in both scientific investigations and practical applications within consultation is crucial because of the link between the use and effectiveness of interventions (Gresham, 1989). However, there are few studies which include systematic assessments of treatment integrity (Gresham, Gansle, Noell, Cohen, & Rosenblum, 1993). In order to determine if behaviorally based intervention studies presented data regarding the integrity of treatments, Gresham and his colleagues (1993), reviewed experimental studies published between 1980 and 1990 in seven journals related to school-
based interventions. Results suggested only 27 of the 181 studies (14.9%) systematically measured and reported treatment integrity for the independent variable.

Treatment integrity can be examined in two ways: the integrity of the consultation process and the integrity of the intervention plan (Gresham, 1989). The integrity of consultation processes refers to whether consultation models during interviews are implemented as intended. On the other hand, the integrity of interventions refers to whether the components developed during these interviews are implemented as planned. The first form of integrity addresses consultant behavior, while the latter addresses consultee behavior. One cannot assume that consultation processes and interventions are being implemented as intended simply because of verbal reports provided by consultants and consultees (Gutkin, 1993).

Several factors related to the integrity of intervention implementation have been suggested by Gresham (1989): (a) complexity of an intervention is inversely related to integrity, (b) time required to implement an intervention is inversely related to integrity, (c) minimal resources/materials needed to implement an intervention is positively related to integrity, (d) involvement of multiple treatment agents is inversely related to integrity, (e) consultee perception of intervention effectiveness is positively related to integrity, and (f)
the motivation level of the treatment agent may be related to integrity.

Methods for assessing treatment integrity of the intervention include indirect measures, such as self-monitoring, self-report through questionnaires, behavioral ratings following observations, and behavioral interviews. Direct measures include direct observation of implementation of the intervention, with a focus on the occurrence and nonoccurrence of each treatment component (Gresham, 1989). Most of the applied consultation studies have focused on self-report methods for assessing treatment integrity, with few exceptions. A brief review of this research is presented below.

A study by Greenwood, Terry, Arreaga-Mayer, and Finney (1992) of the implementation of a classwide peer tutoring program examined the relationship between the degree of implementation of the program and student outcome. Methods for measuring treatment fidelity included a procedural checklist to assess presence of program materials and procedures, student reported points earned during tutoring, and tutor-tutee procedural calibration probes. In general, results showed that variations in students' spelling scores were associated with (a) reduced rates of points given by teachers during tutoring, (b) low treatment fidelity of the program (i.e., unchallenging spelling words), (c) reduced opportunities for students to
receive tutoring sessions, and (d) reduced participation of students in tutoring activities.

A survey study conducted by Flugum and Reschly (1994) examined the extent to which prereferral interventions were provided and the quality of such interventions. Respondents to the survey included regular education teachers (n = 360) and related services personnel (e.g., school psychologists, school social workers; n = 422). Survey questions focused on definition and measurement issues of the target behavior, as well as intervention plan components. Treatment integrity was assessed by including the question "Was the intervention implemented as planned (treatment integrity)?". All questions were answered using a Yes or No response. Results concerning treatment integrity revealed that only 56% of the teachers and 39% of the related services personnel indicated that a prereferral intervention had been implemented prior to referral.

Dunson, Hughes, & Jackson (1994) investigated the effectiveness of behavioral consultation with children experiencing attentional difficulties. Treatment integrity was assessed via consultee self-reports regarding maintenance of intervention monitoring records. In addition, the degree of implementation of each intervention component was jointly decided upon by the consultant and the consultee. Results of the Dunson et al study indicated that consultee ratings of target behavior improvement were
positively related to: (a) treatment integrity ratings by the consultee and consultant, (b) consultee ratings of consultant effectiveness, and (c) consultee ratings of improvement on hyperactivity ratings.

A study by Robbins & Gutkin (1994) utilized a multiple baseline across subjects design to study the effects of school-based consultation on consultee and child behaviors. In this study, behavioral observations were used to assess student on-task behavior, as well as teacher positive verbalizations toward a student (i.e., any positive word, phrase, or sentence used to reinforce appropriate behavior). A partial-interval time sampling procedure was used to record consultee behaviors.

Treatment integrity was also assessed via structured interviews conducted by the consultant. Robbins & Gutkin (1994) revealed that while all three consultees reported they had implemented the "intervention package" as planned, observational data did not correspond. However, the authors also indicated that observational data were only collected on the positive verbalization component of the intervention. Therefore, it appears that this multi-method integrity assessment may not have been testing the same content area (Gresham, 1989).

A recent study on a social skills training intervention (Peterson, 1995) investigated the relationships between treatment integrity, treatment
acceptability, consultative support for treatment implementation (i.e., assistance in the classroom), and child outcome. This study also included an observational measure (i.e., a rating scale) of treatment integrity. The primary results in Peterson's (1995) study were: (a) treatment acceptability was a weak predictor of treatment integrity, (b) higher integrity was related to child outcome, and (c) more complex treatments were implemented with higher integrity. Findings of this study appear to contradict assumed connections between intervention plan variables and treatment integrity.

While some of the intervention research may assess for treatment integrity, they do not always investigate the correspondence between teacher and student behavior. For example, Fuchs and Fuchs (1989), along with their colleagues (Fuchs, Fuchs, & Bahr, 1990; Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990) have conducted several investigations on the effects of Behavioral Consultation (BC) on student outcomes. In all of these studies, fidelity of the treatment or treatment integrity was assessed through teacher or student monitoring of target behavior. Although behavioral observations were included in the methodology, data were only obtained on student behaviors. In addition, these researchers did not examine the correspondence between the teacher monitoring (i.e., the treatment integrity) and student behavior.
Fantuzzo, King, and Heller (1992) investigated the impact of structured peer tutoring and group rewards on mathematic performance. Treatment integrity was assessed in two ways. First, direct observation of staff and student adherence to procedures for the interventions were conducted with the use of a checklist. Second, a 15-item questionnaire was used to determine the degree of student comprehension with procedures. Although this study revealed adequate degrees in integrity of teachers (M=95%) and students (M=82%), it did not examine the influence of treatment integrity on student outcomes or teacher satisfaction.

In a recent study, Taverne & Sheridan (1995) assessed for treatment integrity in an investigation of the efficacy of a parent training intervention. Treatment integrity was assessed through parent self-report of achieving specified objectives. Again, the relationship between treatment integrity and consultee (i.e., parent) behavior was not examined.

In summary, the integrity with which a treatment is implemented is a critical component in both research and practice. Researchers investigating the effectiveness of interventions should include systematic measurements of treatment integrity in order to thoroughly evaluate treatment outcomes.
Teacher Attribution

Teachers often make inferences regarding the various causes of disruptive behavior in their students (Weiner, 1983). Research pertaining to teacher attributions has focused primarily on their relationship to the student's academic performance and secondarily on teacher attributions for a child's behavioral problems. Measurement procedures have included forced choice measures (e.g., Lefcourt, 1981), coding of free responses (e.g., Elig & Friez, 1975), and dimensional assessment (e.g., Peterson, Semmel, Von Baeyer, Abramson, Metalsky, & Seligman, 1982).

Attributional research in the area of teacher-student relationships has centered around Weiner's (1979) tri-dimensional framework which features controllability (internal vs. external), stability (stable vs. unstable) and causality (internal vs. external). With regard to teacher perceptions of control over student behavior, Gutkin and Ajchenbaum (1984) found that the degree of perceived control over a child's behavior was correlated with teacher preference for service delivery. It was also determined that by increasing a teacher's perception of control over a child's homework deficiencies, there was an increase in the teacher's preference for consultation services (Gutkin & Hickman, 1988).
The second dimension within Weiner’s framework suggests that causes may be attributed to stable or unstable factors. Burger, Cooper, and Good (1982) examined whether stability was related to teacher expectations regarding student outcomes. These researchers found that teachers tended to attribute expected outcomes (e.g., a high achieving student receives a high grade on a test) to stable factors, while unexpected outcomes (e.g., a high achieving student receives a low grade) were attributed to unstable factors.

A final dimension within the tri-dimensional system is locus of causality. This refers to an observer’s tendency to attribute another’s behavior to dispositional or internal causes (Jones & Nisbett, 1971). With regard to teacher attributions, this suggests that a teacher attributes a student’s behavior to either internal or external causes. Burger et al (1982) found that the success or failure of students in the classroom is more often attributed to internal rather than external causes by teachers.

In summary, teacher attributions have been shown to play an important role in a student’s school environment. However, research is needed which examines the relationship between teacher attributions of student behavior and teacher behavior toward the student in the classroom. Current literature suggests that a teacher’s attributions
for the causes of a student's behavior problems may affect: the teacher's preference for service delivery (i.e., referral for special education evaluation, consultation, counseling; Waguespack & Moore, 1993), the teacher's acceptability an intervention (Waas & Anderson, 1991) and the degree of integrity in which the teacher implements the intervention (Waas & Anderson, 1991).

Problem Summary

In reviewing the literature related to school-based consultation, several problems were identified. At the most basic level, researchers have failed to operationally define and measure consultation processes in detail. Specifically, researchers have failed to define terms such as consultation and collaboration. Additionally, in recent years, writings pertaining to consultation have focused on the inclusion of treatment integrity in examining consultation outcomes; however, systematic procedures for measuring treatment integrity have not been developed. A third problem, addresses the lack of behavioral outcome data collected in consultation studies. Finally, consultation research has been primarily univariate in nature; that is, variables have been studied and analyzed in isolation rather than as interactions.

Studies which focus on consultation processes and outcomes utilizing methodological advances in consultation research are necessary in order to resolve these problems.
By examining and measuring teacher, process, and outcome variables from a variety of perspectives, the present study attempted to extend our current knowledge about how teacher variables and the processes of consultation influence important outcomes in consultation.

Purpose of the Study

Based on the problems identified, the purpose of the present study was to extend the school-based consultation research by incorporating methodologies considered essential in the field today (Gresham & Noell, 1993; Gutkin, 1993). This study focused on teacher, process, and outcome variables, using both objective and subjective data. This study, exploratory in nature, was guided by the following research questions:

1. Are there different ways to operationalize and measure treatment integrity? In addition, what is the relationship among the methods for assessing treatment integrity?

2. Are teacher attributions of the causes of student behavior, preferences for services, and perceptions of student problem severity, related to consultation outcomes, such as treatment integrity, student behavior change, or consumer satisfaction?

3. Is there a correspondence between the integrity with which a teacher implements a typical discipline procedure and the integrity of the implementation of a new intervention?
4. What is "collaborative" consultation? Can it be operationally defined and measured within the consultation process? In addition, is the verbal interaction style of a consultant related to the treatment integrity of an intervention?

5. Is a teacher's acceptability of an intervention associated with treatment integrity, student behavior change, or consumer satisfaction?
METHOD

Overview

This study investigated the relationship among several teacher, process, and outcome variables within school-based consultation. The purpose of the study was to examine the influence which teacher and process variables have on important outcomes in consultation. The independent variables included: (a) consultant verbal interaction style ("collaborative" versus "expert"), (b) teacher attributions of the causes of student behavior, (c) teacher preference for service delivery, (d) problem severity, (e) baseline integrity (i.e., the degree to which a teacher implements typical classroom discipline procedures), and (f) treatment acceptability. Dependent variables included: (a) treatment integrity, (b) student behavior change, and (c) consumer satisfaction.

The study utilized 32 consultation cases, collected in naturalistic school settings, which followed a modified version of Bergan's behavioral consultation model (Bergan, 1977). Initially, a Problem Identification Interview (PII) identified target behaviors and established baseline collection procedures. A systematic classroom observation was then conducted to obtain descriptive data about consultee and student behaviors. Following initial data collection, a Problem Analysis Interview (PAI) was conducted in order to develop a classroom intervention.
Observations conducted during the intervention phase again focused on consultee behavior (i.e., treatment integrity) and student behavior (i.e., on-task and target behaviors). In addition, throughout the study, consultee perceptions related to consultation were obtained through self-report questionnaires.

Subjects

Consultees

The sample consisted of 29 elementary school teachers who requested consultation with a graduate student serving as a behavioral consultant at their school. Schools included 5 elementary schools (grades K-5) across two (one urban and one rural) school districts in Louisiana. Requests for consultation by teachers included behavioral concerns of students in the classroom.

Twenty-six of the teachers completed the consultation process once and three teachers completed the process twice; thus, the total cases was 32. Each participating teacher signed a consent form for participation (Appendix A) and completed a Teacher Background Information Form (Appendix B). Demographic characteristics, based on teacher responses on the Teacher Background Information Form, are presented in Table 1.

Consultants

Consultants included three Master’s level students (two female, one male) enrolled in the School Psychology
Table 1

**Demographic Characteristics of Teachers in Study Sample**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>Female</td>
<td>28 (97%)</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
</tr>
<tr>
<td>Bachelor's</td>
<td>20 (69%)</td>
</tr>
<tr>
<td>Master's</td>
<td>6 (21%)</td>
</tr>
<tr>
<td>Master's + 30 hours</td>
<td>2 (7%)</td>
</tr>
<tr>
<td><strong>Years of teaching</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>8.79</td>
</tr>
<tr>
<td>S.D.</td>
<td>7.92</td>
</tr>
<tr>
<td>Range</td>
<td>0 - 31</td>
</tr>
<tr>
<td><strong>Referrals for special education/504 evaluation previous year</strong></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>15 (62.5%)</td>
</tr>
<tr>
<td>Yes</td>
<td>9 (37.5%)</td>
</tr>
<tr>
<td><strong>Satisfaction level from referral process</strong></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>2 (25%)</td>
</tr>
<tr>
<td>Somewhat satisfied</td>
<td>3 (37.5%)</td>
</tr>
<tr>
<td>Not at all satisfied</td>
<td>3 (37.5%)</td>
</tr>
</tbody>
</table>

*Note. n = 29*

* Data missing for one teacher.

b  The study sample included four first-year teachers.

doctoral program in the Department of Psychology at Louisiana State University. One of the students was post-internship, while another student had previously worked as a school psychologist for three years. Each student served as a Behavior Intervention Team (BIT) consultant in at least one elementary school for at least one day a week. Prior to the study, consultants completed course work and practica hours in school-based consultation. In addition,
consultants were trained in study procedures. Training procedures are described in a later section.

Interview Content

For the present study, a modification of Bergan's behavioral consultation model (Bergan, 1977) was used. Interview content was based on objectives addressed by Bergan and Kratochwill (1990), as well as on particular objectives related to the study (e.g., inclusion of classroom observations). Each case included a Problem Identification Interview (PII) and a Problem Analysis Interview (PAI).

Problem Identification Interview

For each case, a modified PII (Bergan, 1977), involving the consultee and a consultant, initiated the case. Interviews were approximately 30 minutes in length. Objectives of the PII followed from Bergan and Kratochwill (1990) and included the following objectives:

1. **Purpose of the interview** - The purpose of the interview addressed the overall focus of the meeting; i.e., to discuss the consultee's concerns, identify a specific behavior to target for intervention, and establish baseline collection procedures.

2. **Specification of behaviors** - The second objective was to obtain a behavioral description of student behavior(s) of concern to the consultee.
(3) **Identification of one target behavior** - Based on behaviors specified in the second objective, at least one target behavior was identified for intervention.

(4) **Determination of skills versus performance deficit** - The fourth objective included questions on student capabilities of the target behavior in order to determine a skills or a performance problem.

(5) **Incidence of target behavior** - An estimate of the level of incidence (e.g., frequency, duration) of the target behavior was determined.

(6) **Conditions associated with target behavior** - The sixth component in the PII was to obtain a description of the conditions (i.e., antecedent, consequent, sequential) under which the target behavior occurred.

(7) **Discipline strategy used** - The discipline strategy used by the consultee to address the target behavior was obtained by asking the consultee what he/she typically does in response to the target behavior.

(8) **Previous classroom interventions** - The eighth objective was included in order to acquire information on previously used strategies.

(9-12) **Baseline collection procedures** - Baseline collection procedures included four components: (a) a rationale for baseline recording (e.g., for use in evaluating the success of intervention), (b) definition of the target behavior, (c) determination of interval size
for recording the behavior on partial interval recording form (e.g., 5 minutes, 15 minutes, 60 minutes, etc.), and (d) the date to begin baseline recording.

(13) Arrangement of observation - Arrangements were made with the consultee for baseline classroom observations during a time in which the target behavior was most problematic.

(14) Scheduling of next meeting - The last objective included scheduling the second meeting, the Problem Analysis Interview.

Problem Analysis Interview

Approximately one week later, a modified PAI (Bergan, 1977) was conducted in order to develop a classroom intervention. Again, interviews were approximately 30 minutes in length. Objectives during the PAI included the following:

(1) Purpose of the interview - The purpose of the interview addressed the overall focus of the meeting; i.e., to discuss baseline data and develop an intervention for the consultee to use in the classroom.

(2) Adequacy of baseline data - The second objective included a discussion of baseline data collected by the teacher, as well as a determination of the adequacy of the data.

(3) Discussion of observational data - The classroom observation conducted by the consultant during
the baseline phase was discussed in terms of student on and off-task behaviors, as well as target behaviors.

(4) **Determination of desired student performance** - The fourth objective was included to determine the discrepancy between existing and desired student performance.

(5) **Conditions associated with baseline** - During this segment of the PAI, a conditions analysis was conducted in order to establish conditions surrounding the baseline performance.

(6-13) **Development of intervention plan** - The development of an intervention plan included eight components: (a) a rationale for intervention, (b) a focus on either the target student or the whole class for intervention implementation, (c) determination of a specific intervention with permanent product (e.g., Smiley Face Chart), (d) a specified goal for intervention success (e.g., can get out of seat only once during a 15 minute interval), (e) a long-term reward or privilege (e.g., 10 minutes free time), (f) positive reinforcement (i.e., praise) contingent on appropriate behavior, (g) explanation of intervention steps with either a "response cost" procedure, involving the removal of a reinforcer (e.g., a token which could be exchanged for a reinforcer) contingent upon the occurrence of the target behavior or a positive response contingent upon the occurrence of an
alternative behavior (e.g., checking an index card when student raised hand before speaking), and (h) a start date to begin implementation.

(14) **Arrangement of observation** - The final objective in the PAI designated the date and time of the next observation.

Consultant Verbal Interaction Style

Authorities in the field of consultation have supported a collaborative approach to consultation with teachers (e.g., Gutkin & Curtis, 1990; Idol, Paolucci-Whitcomb, & Nevin, 1993; Sheridan, 1992). However, few empirical studies have investigated the effectiveness of collaboration. More importantly, there has been no agreed upon operational definition of collaboration (Gutkin, 1993). Therefore, based on this need to empirically examine "collaboration," consultant verbal interaction style was incorporated into this study.

Consultant verbal interaction style was defined in terms of consultant prompts for teacher input or participation. A "collaborative" style of verbal interaction was specified when the consultant gave optimum opportunity for the consultee to provide input in decision-making during the interview, while an "expert" style was specified when the consultant provided little or no opportunity for the consultee to have input into decisions (Wenger, 1979). Therefore, the collaborative
consultant solicited teacher participation into the identification of the problem and development of the intervention, while the expert operated in a style analogous to a physician where a diagnosis of the problem is made and an intervention is "prescribed." In addition, the consultant functioning in the collaborative role emitted "support" statements during the interview (for examples, see Appendix C), while the expert style did not implement these statements. The inclusion of support statements into the collaborative consultation condition was based on Kurpius and Rozecki's (1993) summary of interpersonal communication skills in consultation.

For this study, cases were randomly assigned to either a "collaborative" or "expert" condition. Therefore, each case included a Collaborative PII and PAI or an Expert PII and PAI. This independent variable, consultant verbal interaction style, was considered an experimental condition and was measured using interview integrity checklists (described in a later section).

In order to increase the degree of control in each case, the collaborative and expert conditions were defined and measured within the interview context; i.e., manipulations of each condition only took place during audiotaped PII and PAI sessions. Selected objectives included in the PII and PAI were manipulated according to the consultant verbal interaction style. Eight of the 14
PII objectives (described in detail above) were manipulated by the consultant through programmed questioning. These objectives included the following: (a) purpose of the interview, (b) identification of one target behavior, (c) determination of skills versus performance deficit, (d) definition of target behavior, (e) determination of interval size, (f) the date to begin baseline recording, (g) arrangement of observation, and (h) scheduling of next meeting.

For the PAI, the following 11 objectives were defined for the expert and collaborative conditions: (a) purpose of the interview, (b) adequacy of baseline data, (c) determination of desired student performance, (d) conditions associated with baseline, (e) implementation focus on either the target student or whole class, (f) determination of specific intervention, (g) a specified goal for intervention success, (h) a long-term reward, (i) positive reinforcement (i.e., praise) contingent on appropriate behavior, (j) start date to begin implementation, and (k) arrangement of observation. Examples of objectives with each verbal interaction style are presented in Appendix C.

Measures

In addition to experimental manipulations, the effects of several other variables were evaluated within a correlational design. Measures evaluating teacher
variables, consultation processes, and consultation outcomes under investigation were separated into three categories: (a) consultee perception of student behavior, (b) consultation process, and (c) consultation outcome. Consultee perception of student behavior included three variables: attribution of causes for student behavior, preference for service delivery, and severity of student problem. Measurement for process variables in consultation included independent ratings of consultant verbal interaction, teacher perceptions of consultant verbal interaction, treatment acceptability, and complexity of the intervention. Three variables evaluated outcomes in consultation: baseline integrity, student behavior, and consumer satisfaction.

Consultee Perception

The first category of measurement instruments assessed consultee attributions for student behavior problems, consultee preference of service delivery for the student, and consultee perceptions of the severity of student behavior. Three separate measures were used to gather these data.

Teacher Attribution Scale

In order to measure teacher attributions for student behavior problems, the Teacher Attribution Scale (TAS; George, 1994) was administered to consultees. The TAS is a 5-point Likert-type scale designed to assess the degree
of a teacher's causal attributions for a child's behavior problem(s). The TAS consists of 20 items which load on four factors: Teacher Control, Locus, Child Control, and Stability. Reliability estimates ranged from .66 to .70 for individual factors.

Divergent validity has been demonstrated for the TAS. Nonsignificant correlations were found between the Beck Depression Inventory and the factor scores of the TAS, suggesting that teacher attributions for a child's behavior problem are not related to self-ratings of depression. Evidence for concurrent validity of the TAS is unclear. Preliminary data indicate nonsignificant correlations ranging up to -.40 between the Stability factors on the TAS and the Attributional Style Questionnaire (ASQ; Peterson, et al., 1982).

Nonsignificant correlations of -.058 were also found between measures of locus on the TAS and the ASQ. This scale, identified as the Child Behavior Scale for this study, is presented in Appendix D.

**Preference for Service Delivery**

This questionnaire was developed for the present study in order to obtain consultee perceptions of the most appropriate service for the referred case. As shown in Appendix E, this instrument prompted the consultee to make a forced-choice among the following: (a) referral for a special education or Section 504 evaluation, (b)
consultation, and (c) counseling provided by a third-party professional.

**Student Progress Rating Scale**

The Student Progress Rating Scale (SPRS) is an instrument designed to measure the severity of the behavior of the referred student as perceived by the consultee. Prior to administration of the 8-item scale, the consultant listed the two target behaviors which were specified during the PII (e.g., talking without permission, out of seat). This instrument, presented in Appendix F, was designed to assess behavior severity levels of specific behaviors. This contrasts with global indices of severity level which other rating scales (e.g., Conners' Teacher Rating Scale; Conners, 1990) attempt to measure. Consultee perceptions of student behavior were obtained by administering the SPRS prior to intervention implementation, as well as after the intervention was implemented.

**Consultation Process**

In order to measure processes within consultation, three instruments were used to quantify the verbal processes during consultation meetings and two instruments were used to quantify consultation plan variables which also occurred during the meetings. The Problem Identification Interview Checklist and the Problem Analysis Interview Checklist were used to quantify
consultant verbal interaction style. The Verbal Interaction in Consultation - Teacher Rating was used to quantify consultee perceptions of consultant interaction style. Two instruments were used to measure consultee acceptability of the intervention, as well as the level of complexity of the intervention.

**Problem Identification Interview Checklist**

The Problem Identification Interview Checklist (PII Checklist; Appendix G) is a 15-item checklist developed for this study to evaluate the consultant's adherence to the verbal interaction conditions (i.e., "collaborative" or "expert"). PII tapes were coded by trained, independent coders using a coding manual (Appendix C). Specifically, the PII Checklist was coded to determine whether or not the consultant prompted the consultee to provide input on the eight required objectives (described above). In addition, coders indicated the number of "support" statements initiated by the consultant. The checklist was also used to evaluate whether or not input was received from the consultee regarding each of the prompted objectives.

For each case, a PII Collaboration Score (ranging from 0 to 17) was determined by assigning a "1" each time the consultant provided a required prompt for consultee input (i.e., for each check placed under Column A), a "0" each time the consultant did not provide a prompt for
consultee input (i.e., for each check placed under Column B), and a "1" each time input was given by the consultee (i.e., for each circle under Column C). A "1" was also scored when consultant support statements numbered five or more. The final Collaboration score was calculated by summing numbers for a total score. Higher scores are associated with collaboration.

Each PII was coded by a primary coder. One of the case interviews was not coded due to a failure in audiotape recording. The integrity for consultant prompts for consultee input ranged from 12% to 100% (M = 86%). Interrater agreement of PII implementation was established for 14 out of 31 interviews (45%). Interrater agreement was computed as the number of agreements divided by the number of agreements plus disagreements and multiplied by 100 (Foster & Cone, 1986). For consultant prompts, interrater agreement ranged from 89% to 100% (M = 95%), while agreement on teacher input ranged from 50% to 100% (M = 85%).

Problem Analysis Interview Checklist

The Problem Analysis Interview Checklist (PAI Checklist), a 15-item checklist similar to the PII Checklist, evaluates the consultant's compliance to the verbal interaction style during the PAI. In addition, the PAI Checklist provides an indication of the level of consultee input during the interview. In contrast to the
PII Checklist, the ceiling for the Collaboration score on the PAI Checklist is 23. This checklist is shown in Appendix H.

Each PAI was coded by a primary coder. The integrity for consultant prompts for consultee input ranged from 50% to 100% (M = 93%). Interrater agreement of PAI implementation was established for 15 out of 32 interviews (47%). Interobserver agreement on consultant prompts for teacher input ranged from 73% to 100% (M = 92%), while agreement on teacher input ranged from 54% to 100% (M = 85%).

**Verbal Interaction in Consultation - Teacher Rating**

The third measure examined the process of consultation according to the consultee's perceptions. The Verbal Interaction in Consultation - Teacher Rating (VIC-TR) was developed (see Appendix I) for the present study in order to measure the consultant's style of verbal interaction. Following the PAI, the consultee rated each VIC-TR item on a 5-point Likert-type scale.

**VIC-TR scale development.** An attempt was made to create a scale that would require a teacher to rate the degree of collaboration during a PAI. Development of the VIC-TR involved three phases: item generation, factor analysis and validation. An initial pool of 15 items were generated by reviewing the literature and identifying consultant behaviors that are likely to describe a
"collaborative" verbal interaction. These behaviors were then translated into third person statements (e.g., "The consultant was interested in the teacher's input"). Videotapes depicting a collaborative PII, expert PII, collaborative PAI, and an expert PAI were created. Each interview was scored by two independent coders using the PII and PAI Checklists and exceeded criteria for integrity.

In the second phase, groups of 4-6 undergraduate students participating in research experiments for extra course credit viewed one of the four videotapes. After watching the video, each student was asked to rate the consultation according to the 15 items on the VIC-TR. Data collection continued until 146 ratings were obtained, with the total for each videotape condition ranging from 33 to 38. The completed VIC-TR ratings were factor analyzed using a principal components analysis followed by a varimax rotation with iterations. The principal components procedure extracted two factors with eigenvalues above unity, which accounted for approximately 55% of the total variance. Table 2 displays the rotated factor matrix.

Items which loaded .40 or greater on a specific factor were retained. Therefore, items 1, 2, 3, 5, 6, and 11 were included on Factor 1, which was described as a "Collaborative" factor because each of these items
appeared to reflect the degree of verbal input. Items 8, 12, 14, and 15 were retained for Factor 2, which was described as a "Support" factor because each of these items seemed to reflect the level of empathy expressed by the consultant. The remaining five items were excluded because each loaded highly on both factors.

Table 2

**Rotated Factor Matrix for the VIC-TR**

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>-0.80</td>
<td>-0.20</td>
</tr>
<tr>
<td>Q2</td>
<td>-0.54</td>
<td>-0.29</td>
</tr>
<tr>
<td>Q3</td>
<td>0.77</td>
<td>0.37</td>
</tr>
<tr>
<td>Q4</td>
<td>0.42</td>
<td>0.54</td>
</tr>
<tr>
<td>Q5</td>
<td>-0.78</td>
<td>-0.04</td>
</tr>
<tr>
<td>Q6</td>
<td>0.67</td>
<td>0.30</td>
</tr>
<tr>
<td>Q7</td>
<td>0.48</td>
<td>0.58</td>
</tr>
<tr>
<td>Q8</td>
<td>-0.25</td>
<td>0.77</td>
</tr>
<tr>
<td>Q9</td>
<td>-0.50</td>
<td>-0.56</td>
</tr>
<tr>
<td>Q10</td>
<td>0.45</td>
<td>0.58</td>
</tr>
<tr>
<td>Q11</td>
<td>-0.73</td>
<td>-0.35</td>
</tr>
<tr>
<td>Q12</td>
<td>0.30</td>
<td>0.55</td>
</tr>
<tr>
<td>Q13</td>
<td>0.51</td>
<td>0.51</td>
</tr>
<tr>
<td>Q14</td>
<td>0.37</td>
<td>0.54</td>
</tr>
<tr>
<td>Q15</td>
<td>0.35</td>
<td>0.63</td>
</tr>
</tbody>
</table>

In the final phase, two one-way ANOVAs were conducted in order to determine the degree to which each factor
differentiated the four video conditions. An ANOVA using Factor 1 as the dependent variable revealed a significant difference among the four groups [F(3, 142) = 57.85, p < .000]. A post-hoc Scheffe' test revealed significant differences between each of the four groups. A second ANOVA using Factor 2 as the dependent variable revealed a significant difference between the four conditions [F(3, 142) = 12.05, p < .000]. A post-hoc Scheffe' test revealed significant differences between the collaborative and expert conditions.

Coefficient alphas were calculated to determine the internal consistency of the two VIC-TR factors. The results of these analyses demonstrated adequate internal consistency for Factor 1 (.87) and weaker internal consistency for Factor 2 (.64). After converting the wording of each item (e.g., "The consultant was interested in my input"), the VIC-TR was used in the present study to assess the perceptions of the teacher regarding the PAI interview. Given the exploratory nature of the present study, both factors were included in the final version, despite the weaker internal consistency of Factor 2.

**Intervention Rating Profile - 15**

The acceptability of interventions was measured using the Intervention Rating Profile - 15 (IRP-15; Martens, Witt, Elliott & Darveaux, 1985). The original IRP (Witt & Martens, 1983), was developed using Kazdin's (1980)
Treatment Evaluation Inventory (TEI) for clinical settings. An established measure of pretreatment acceptability in educational settings, the IRP-15 measures a teacher's perception of how appropriate an intervention is for the student (prior to its implementation), as well as for use in the classroom.

The IRP-15 consists of 15 items which are rated on a 6-point Likert-type scale ranging from "strongly disagree" to "strongly agree." Several investigations have established adequate psychometric qualities of the IRP when used in analogue experimental studies (Elliott, 1988; Witt & Elliott, 1985; Witt, Elliott, & Martens, 1984; Witt, Martens, & Elliott, 1984). Reported reliability ranged from .82 to .95 on the one primary "general acceptability" factor, with a coefficient alpha of .98 for the total score (Witt & Elliott, 1985). In addition, Elliott (1988) compiled numerous investigations which demonstrated the validity of the IRP-15 as a measure of differential acceptability of several intervention variables, such as treatment type, time requirements, and reported effectiveness.

The IRP-15, shown in Appendix J, was completed by consultees following the PAI. The total score was used to quantify intervention acceptability as rated by each consultee and was employed as an independent variable in data analyses.
Complexity of Intervention Scale

In order to maintain control over intervention complexity, an attempt was made to limit interventions to the list shown in Appendix K. However, for some cases the consultee provided more extensive input into the development of the intervention. In other cases, the consultant used a different intervention strategy in order to address a specific target behavior. To determine whether protocol interventions differed from the other interventions in terms of complexity, as well as whether "collaborative" versus "expert" interventions differed, the Complexity of Intervention Scale (CIS; Appendix L) was developed for the present study.

The CIS included 4-items that measured the following: (a) specification and clarity of described steps, (b) preparation time involved for consultee, (c) time involved for consultee to implement intervention, and (d) the overall difficulty level of intervention implementation. Two independent judges (one graduate and one undergraduate student in psychology) rated each item on a 6-point Likert-type scale by listening to each of the 32 PAI audiotapes.

Training consisted of approximately two hours in intervention design and use of the CIS. In order to evaluate interventions, judges met the criteria of rating two consecutive interviews with 100% reliability.
Reliability was computed as agreements over agreements plus disagreements and multiplied by 100 (Poster & Cone, 1986). An item was defined as an agreement within one point on the scale. The independent ratings of complexity were established for 15 (47%) of the interventions and yielded an average interobserver agreement of 80% (range 0% - 100%).

**Consultation Outcome**

In order to evaluate consultation outcomes (i.e., the products of consultative interactions) several variables were measured: student behavior, baseline integrity, treatment integrity, and consumer (i.e., consultee) satisfaction. Each variable was measured by employing one or more methods.

**Behavior Observation System**

*Description of instrument.* The first instrument, the Behavior Observation System (BOS; see Appendix M), is a structured observation system for coding consultee behaviors (i.e., baseline and treatment integrity) as well as student behaviors (i.e., on- and off-task, and two target behaviors). Based on other observation systems (e.g., Rhode, Jenson, & Reavis, 1992), the BOS was developed as a ten-second interval recording procedure which utilizes an audio-cassette recorded voice prompt and ear plug device. The recorded prompt cues the observer every ten seconds to attend to behaviors of the target
student, as well as consultee behaviors exhibited toward the student. In addition, comparison students were randomly selected by the observer (i.e., alternating students within observer's view) and observed during every third interval. This provided an overall measure of defined behaviors for the class (i.e., the class average). For 30 of the cases, observations with the BOS occurred three times during the consultation process (i.e., once during baseline data collection and twice during intervention implementation). The second intervention observation for two cases was not conducted due to class schedule changes.

Behaviors of the target student and comparison students were measured in terms of on-task behavior, off-task behavior, two target behaviors, and teacher attention. The observers adhered to the following definitions with regard to coding student behavior:

1. **On-task (On)**. The student was coded on-task if he/she was observed: (a) giving eye contact to the teacher, chalkboard, another speaker (e.g., student), or class work on desk, or (b) performing a teacher-requested task (e.g., answering question, writing at desk or on chalk board, passing out papers, reading subject material). This behavior was observed using whole interval recording. For instance, a student was coded on-task if, during the entire ten second interval, he/she was observed writing on a math sheet at his or her desk.
(2) **Off-task (Off)**. Any diversion from on-task (e.g., looking away from the teacher, talking out, hitting, drawing on desk) that was not specified as a target behavior was defined as off-task. This was indicated by a check mark in the designated interval.

(3) **Target behavior 1 (T1)**. A specific behavior determined as the most problematic behavior in the classroom was indicated as target behavior 1. This primary target behavior was operationally defined by the consultee and the consultant during the PII. Target behaviors included: talking out (n = 15), out of seat (n = 6), compliance with teacher requests or classroom rules (n = 3), touching others or aggression (n = 2), playing with objects (n = 1), talking back to teacher (n = 1), tantrum (n = 1), and other (e.g., sitting in seat inappropriately, completing assignments; n = 3).

(4) **Target behavior 2 (T2)**. A second behavior defined as problematic was designated as target behavior 2.

(5) **Teacher attention (TA)**. An interval was coded "teacher attention" when the student received any unelicited attention from the teacher (e.g., teacher helping student with work, teacher asking student question). Partial interval recording was used when recording off-task, target behaviors, and teacher attention. For example, a T1 (e.g., talking out) code was
recorded if a single incident of talking out occurred lasting three seconds of the ten-second interval.

In addition to student behaviors, the BOS was also used to record teacher behaviors. These behaviors included the immediate consequence provided by the teacher in response to the primary target behavior. The immediate consequence was previously defined and transferred to the BOS before each observation was conducted. As shown in Appendix M, the following rating system was used:

1. **1 - no response.** A "1" was assigned when the consultee did not respond (for whatever reason; e.g., did not see behavior, chose to ignore behavior) in the specified manner when the target behavior occurred. For example, given the specified consultee response of the removal of a token each time the student talked without permission, a "1" was coded if the consultee did not respond.

2. **2 - deviation from response.** A "2" was assigned when the consultee attended in a way that varied from the specified response. A deviation included the following: (a) any addition to the response (e.g., removal of the token plus addition of punishwork) or (b) a completely different response (e.g., verbal reprimand). Written descriptions of any deviations were indicated on the BOS.

3. **3 - agreement with response.** A "3" was provided only when the consultee's behavior adhered to the
specified response. That is, if the consultee was observed removing a token following a student talking without permission, then a "3" was assigned to the corresponding interval.

Finally, the BOS was used to indicate whether or not the permanent product of the intervention was established in the classroom setting. First, the observers rated whether or not the intervention permanent product (e.g., smiley face chart) was visible in the classroom (e.g., on the student's desk). In addition, observers rated whether or not the permanent product was used during the observation (e.g., the teacher crossed out a smiley face). Scoring of each variable measured by the BOS is described below.

**Student behavior.** For each case, percentages were computed on behavior codes for the target student and comparison students (compiled as a class average) for the three observations. Each code was summed and divided by the total number of observed intervals and multiplied by 100. Baseline observation data on student behavior, as well as the average behavior of class, were discussed with consultee and used during the PAI intervention development. Intervention data were used to provide pre- and post-observation information for the consultee.

For the purpose of analyses, three student behavior scores were established for each case. The percentages of
target behavior occurrence during baseline, week one of intervention, and week two of intervention were computed as stated above and used in subsequent data analyses.

To establish reliability of student behavior using the BOS, 28% of the total case observations were conducted by two observers (i.e., the consultant and a second observer). Reliability was assessed for 22% of baseline observations, 31% of intervention week one observations, and 30% of intervention week two observations. Interval-by-interval interobserver agreement was calculated for each behavior code. Agreement was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100 (Foster & Cone, 1986). Interobserver agreement data for on-task ranged from 70% to 98% (M = 90%), for off-task ranged from 75% to 98% (M = 88%), for target behavior 1 ranged from 86% to 99% (M = 93%), for target behavior 2 ranged from 91% to 100% (M = 96%), and for teacher attention ranged from 94% to 100% (M = 98%).

**Baseline integrity.** For the present study, baseline integrity was defined as the degree to which the consultee implemented existing, teacher defined, discipline procedures concerning the target behavior. Baseline integrity was determined by examining the correspondence between the consultee's stated response for the target behavior (i.e., what the consultee said he/she typically
did in reaction to the behavior) and direct observation of the consultee delivering the response (i.e., what the consultee actually did). The typical response (e.g., verbal reprimand) was determined during the PII.

The BOS, as described above, was used to record consultee baseline integrity. Each time the target behavior occurred within a given interval, the observer indicated the degree to which the consultee followed his/her stated response (indicated as "CE Response" in Appendix M). Using data collected with the BOS, the baseline integrity score was calculated as a percentage by dividing the total number of intervals scored a "3" by the sum of occurrences of the target behavior and multiplying by 100. In other words, the number of times the consultee actually responded as stated was divided by the total number of times the consultee had the opportunity to respond.

To establish reliability of baseline integrity using the BOS, 22% of case observations were conducted by two observers. Reliability of baseline integrity was obtained during the same baseline observations described above. Due to the infrequent occurrence of consultee response behaviors (i.e., behaviors coded as "3"), agreement was calculated as percentage agreement on occurrences of behavior by dividing the number of agreements for occurrences by the number of agreements plus disagreements.
and multiplying by 100 (Foster & Cone, 1986). Interobserver agreement data for baseline integrity ranged from 83% to 100% (M = 95%).

**Treatment integrity.** Observed treatment integrity was defined as the degree to which the intervention was implemented as designed. The same rating system (i.e., a "1," "2," or "3" as defined above) used to measure baseline integrity was employed to measure observed treatment integrity. Observers rated the degree to which the consultee provided the immediate consequence component of the intervention (described in an earlier section). In addition, the same method of calculation used in measuring baseline integrity was employed to determine the observed treatment integrity score for each week of intervention implementation. The score was the percentage of times the programmed response (i.e, a "3") followed the occurrence of a target behavior.

The independent ratings of integrity of the immediate consequence were established for an average of 30% of the observations and yielded an average interobserver agreement of 96% (range 80% - 100%). Due to the infrequent number of teacher responses, agreement was calculated by dividing the number of agreements for occurrences by the number of agreements plus disagreements and multiplying by 100 (Foster & Cone, 1986).
A second treatment integrity score for each intervention observation was conducted through examination of the permanent products in the classroom. Observers were instructed to provide one of the following scores on the BOS: a "0" if the permanent product was not evident, a "1" if the permanent product was evident but not used, or a "2" if the permanent product was evident as well as used during the observation. A total permanent product treatment integrity score was compiled by summing scores from the two intervention observations; thus, the range for this integrity score was 0 to 4. Interobserver agreement was assessed on 30% of intervention observations and yielded an average interobserver agreement of 100%.

Baseline and Intervention Record Form

Description of instrument. The Baseline and Intervention Record Form (BIRF), developed for this study, was designed to assist the consultee in recording student behavior during the baseline and intervention phases. As shown in Appendix N, each consultee was instructed to indicate whether the behavior occurred during the specified interval by placing a "1" in the appropriate box. If the behavior did not occur during the interval, a "0" was placed in the box. Each consultee was also instructed to indicate if the student was absent or if recording was omitted for a particular reason (e.g., forgot to observe/record, class attended school function
during time interval, student sent to office, etc.) so that all boxes were completed. Twenty consultees used this partial interval recording method, while 11 consultees used a frequency method in which they recorded the occurrences of the target behavior during each interval on the BIRF. In addition, three teachers used alternative data collection forms. Data collection procedures were modified due to teacher request or occurrence of the target behavior. The BIRF was used by the consultee to obtain data on student behavior. The BIRF also served as a measure of treatment integrity since data collection procedures were components of all intervention plans. Scoring of each variable measured by the BIRF is described below.

**Student behavior.** The second method for measuring student behavior was obtained through consultee recordings on the BIRF documents. A student behavior score from each BIRF collected at the end of the two-week intervention phase was calculated as a percentage for both partial interval and frequency recording methods. For cases following a partial interval recording method, student behavior scores were calculated by dividing the number of occurrences of behavior (i.e., the sum of boxes with a "1" written or reported by the consultee) by the total number of intervals with either a written or reported "1" or "0" and multiplying by 100.
For cases adhering to a frequency recording method, student behavior scores were calculated by following two steps: (a) for each week, the number of marks per interval were divided by the number of intervals and (b) each resulting number was divided by the highest frequency to obtain the BIRF percentage score. For example, if the first step resulted in 2.3 for week one, 1.3 for week two, and 1.1 for week three, then 2.3 was used as the denominator for all three BIRF percentages. The resulting BIRF scores would be calculated as 100% (2.3/2.3) for BIRF1, 56% (1.3/2.3) for BIRF2, and 48% (1.1/2.3) for BIRF3. Student behavior scores obtained from the BIRF were used in subsequent data analyses.

Integrity of consultee recording. The degree to which the consultee recorded the target behavior was also assessed during the present study. This procedural integrity measure was evaluated by examining the BIRF products collected during baseline and intervention periods. The purpose was to determine the consultee's level of adherence to recording of the target behavior on the BIRF. Data recorded on other forms were transferred to BIRFs. This recorded integrity measure was determined by dividing the number of completed intervals (i.e., intervals where consultee wrote a 1, a tally, 0, or indicated that data could not be collected) by the number of possible intervals on the BIRF and multiplying by 100.
Teacher Satisfaction Questionnaire

Satisfaction with the consultation process was measured by having the consultee complete the Teacher Satisfaction Questionnaire (TSQ) at the end of the two-week intervention period. The TSQ was developed in part from several existing measures of this type (e.g., Gresham, 1991; McKee, 1991). Consultees were asked to complete the 8-item questionnaire (see Appendix 0) by selecting the best option on a 5-point Likert-type scale ranging from "strongly disagree" to "strongly agree."

Items for the scale were selected to reflect important elements concerning overall teacher satisfaction. These elements included satisfaction with student behavior change, perceived effectiveness of intervention, evaluation of consultant, and overall satisfaction with consultation process. Scoring of the TSQ involved reverse scoring items 3, 6, 7 and summing endorsed numbers for a total score. Higher scores are associated with greater consultee satisfaction.

Procedures

Sampling

The consultation cases were obtained from five elementary schools across two Louisiana school districts. Schools included four regular campus schools and one special education campus school (i.e., Louisiana School for the Deaf). Building level principals of each school
were recruited by letter, follow-up telephone contact, and personal interview. Before joining a school, a brief faculty in-service was conducted by a BIT member in order to introduce and review the project procedures. Emphasis was made on the teacher as the "client" rather than the student. In addition, audiotaping for research purposes was explained to the faculty.

Prior to the onset of consultation requests, cases were randomly assigned to a verbal interaction condition (i.e., collaborative or expert). In order to maintain confidentiality of subjects (i.e., teachers), all measures were identified only by case numbers. The identity of individual students was avoided within all phases of the study.

The original sample included 44 cases, however 12 cases did not complete the entire consultation process. In 5 of these cases, the teachers terminated the consultation process prior to the PII. Seven cases were discontinued during the consultation process for various reasons: (a) teacher decided to target a different student since a new behavior was in greater need of intervention (n = 3), (b) teacher decided to target a different student since original student no longer at school due to expulsion or move (n = 2), and (c) teacher decided to completely withdraw from the process (n = 2).
The twelve terminated cases were not included in the study sample. Technical and logistical problems (e.g., tape recorder did not record interview; a change in teacher schedule altered observation setting), as well as circumstances beyond the control of the researcher (e.g., consultee did not return questionnaire) resulted in partial data in some cases.

Request for Consultation

Participation by teachers was voluntary. Procedures for consultation requests were handled differently within each school. In three of the schools, requests for consultation were obtained through school counselors, while in the other two schools requests were obtained through administrators. Once a consultant received a request for consultation, he or she contacted the teacher to determine if the teacher was willing to participate.

A case was included in the study if it met the following criteria: (a) the teacher requested to consult about one student, (b) referral concern(s) was a behavior rather than an academic skills problem, (c) behavior problem was occurring in the classroom versus outside of the classroom (e.g., on playground), and (d) the teacher reported a moderate to high frequency of target student’s behavior relative to other children in the classroom. However due to the small number of requests for consultation, low frequency behavior problems (e.g.,
temper tantrums) were also included in the study sample. High frequency behaviors (i.e., occurrence of target behavior during baseline observation at least 25% or teacher baseline recording at least 50%) comprised 72% of the sample (23 cases), while low frequency behaviors (i.e., occurrence of target behavior during baseline less than 25% or teacher baseline recording less than 50%) comprised 28% of the sample (9 cases).

If the case was considered suitable and the teacher was willing to participate, the consultant provided the teacher with a Teacher Pre-Packet. This packet consisted of the Teacher Consent Form, the Teacher Information Form, the Preference for Service Delivery, and the Child Behavior Scale. At this time, the consultant scheduled an initial interview with the teacher and instructed the teacher to complete the packet before the meeting.

**Week I**

The initial meeting between the teacher and the consultant consisted of a Problem Identification Interview (PII; Bergan, 1977). Interviewing took place in the teacher's classroom or another available room. Audiotaping was the responsibility of the consultant.

During the PII, the Baseline and Intervention Record Form (BIRF) was given to the consultee in order to gather baseline data information in the classroom for one week. For three of the cases, other data collection forms were
used due to teacher request. Upon completion of the interview, the consultee was asked to complete the Student Progress Rating Scale (SPRS).

Before the next meeting, the consultant conducted a baseline observation in the classroom using the BOS. The purpose of the baseline observation was to obtain the following information: (a) a baseline measurement of on- and off-task behaviors, as well as specified target behavior(s) displayed by the student, (b) a class average of on-task, off-task, and target behavior(s) for comparison purposes, and (c) the consultee’s integrity of typical discipline procedures (i.e., baseline integrity).

Prior to each observation, information in the case file pertaining to target behavior definitions and the expected immediate consequence of the consultee were reviewed. All student and consultee information was written on the BOS. For each observation, observers were seated in the classroom with a BOS on a clipboard, a pencil, a small audio-cassette recorder with the voice prompt cassette, and an ear plug device. Observers were instructed to sit near the target student so that his or her face, as well as faces of three comparison students, was visible. When the specified instructional activity was established (e.g., independent seatwork), the observer started the audio-cassette recorded voice prompt and began observing. During unobservable intervals (e.g., target
student's face was blocked by teacher) or brief interruptions (e.g., teacher talked to observer), the relevant interval was not coded and an X was written over interval on BOS. If any extended interruptions (e.g., intercom announcements) or transitions (i.e., to another activity) occurred, the observation was delayed by stopping the recorder. Observations were terminated if 141 BOS intervals were scored or the classroom setting changed.

The duration of baseline observations ranged from 12 to 47 minutes (M=21.67) and occurred at the scheduled time of day in which the primary target behavior was reported to most often occur. Observations were conducted by one observer, except during reliability checks.

**Week II**

Approximately one week later, the Problem Analysis Interview (PAI) was conducted in which a classroom intervention was developed (within the collaborative condition) or recommended (within the expert condition). During this interview, the baseline BIRF was collected from the consultee. In addition, the consultee was provided with two additional BIRF documents for intervention data collection during Weeks II and III. Intervention steps were written on the BIRFs. Immediately following the PAI, the consultee was asked to complete the Intervention Rating Profile-15 (IRP-15) and the Verbal
Interaction in Consultation - Teacher Rating (VIC-TR). Ratings were returned to the researcher in a self-addressed, stamped envelope.

At the end of the second week, the consultant conducted a second classroom observation during the planned intervention implementation time. This observation was conducted in a setting as similar as possible to the first observation (i.e., same time, subject, instructional activity). Again, the focus of this observation was to obtain levels of on-task, off-task, and target behavior(s) of the target student, as well as of the class. In addition, the observation examined the consultee's compliance with the implementation of the intervention (i.e., treatment integrity). On average, intervention observations during the first week were conducted on the 5th day (ranging from the 1st to the 5th day).

**Week III**

During the third week of the process (i.e., the second week of intervention implementation), a third observation was conducted in the classroom. This observation gathered the same information as the observation conducted during Week II. On average, these observations were conducted on the 9th day (ranging from the 5th to the 15th day). The duration of the two intervention observations ranged from 8 to 23 minutes (M=19.00).
Following two full weeks of implementation of the intervention, the consultant provided the consultee with a Teacher Follow-up Packet. This packet contained the Teacher Satisfaction Questionnaire (TSQ) and the SPRS-2. Consultees were instructed to mail the two forms in a self-addressed stamped envelope. The two BIRFs and any intervention documents (e.g., charts, tickets, etc.) were collected by the consultant at this time.

**Week IV**

Approximately one week after the Teacher Follow-up Packet was completed, the consultee was provided with the Check-up Sheet (Appendix P). The purpose of this sheet was to provide the consultee with the option for a third meeting about the same case (i.e., Problem Evaluation Interview meeting; Bergan & Kratochwill, 1990) or an initial meeting about a new case.

**Case Completion**

A case was considered complete when: (a) the consultation process was concluded and the consultee decided to end contact with the consultant or (b) the consultee chose to withdraw from the project. In the first instance, the consultant scheduled a final follow-up meeting to discuss the results of the intervention with the consultee regarding behavior change in the student. Each teacher was given a brief technical report and debriefing statement (see Appendices Q and R).
**End of School Year**

At the end of the school year, teachers were given a letter of appreciation for participating in the study. In addition, a BIT newsletter was given to each teacher, providing brief feedback about the study.

**Procedural Integrity**

**Training**

**Consultant Training**

Prior to the conduct of actual consultation cases, graduate student consultants were trained in particular methods, processes, and procedures related to the study. Five areas were included in the training: (a) study procedures, (b) behavioral consultation model, (c) scripted interview protocols, (d) observation procedures, and (e) baseline and intervention development/recording. Training methods included didactic presentations, discussions, observations, role playing, and out-of-session practice.

**Study procedures.** Approximately one hour of training was devoted to the review of study procedures, the overall consultation process, and materials/resources. For example, instruction was given for precise procedures to follow while interviewing (e.g., time limits, audiotaping). In addition, consultants were advised of appropriate behavior expected while in the schools, as well as to minimize contact with teachers between
sessions. Appendix S depicts a flowchart which was used during the training session.

Behavioral consultation model. The second topic of training focused on the consultation process within a behavioral model. Each consultant received reading materials on behavioral consultation (Bergan & Kratochwill, 1990). Training consisted of approximately two hours and focused on behavioral objectives during consultation.

Scripted interview protocols. Once consultants completed instruction in behavioral consultation process, training with the scripted interview protocols for each type of interview (i.e., Collaborative PII, Expert PII, Collaborative PAI, Expert PAI) was conducted. Definitions of "collaborative" and "expert" styles of verbal interaction were reviewed with consultants. Interview styles and objectives were discussed using the PII/PAI Checklists and Coding Manuals (Appendices C, G, and H) during the two stages of training: role play and examination. The checklists and manuals served as a guide for consultants in the understanding of interview objectives and verbal interaction styles. Overall, time for training required approximately ten hours.

The first stage included role playing and discussing segments of each interview with the project researcher. This was conducted in a group setting and functioned as
training through actual practice and observation of others, as well as an integrity check of the training by the project researcher.

The second stage involved conducting and audiotaping each interview with a participant (e.g., another student consultant) acting as a consultee. Training tapes were rated by trained coders and reviewed with the project researcher. All consultants "passed" according to the specified criteria (described below) before proceeding to actual cases.

Training tapes were rated by trained coders using the PII and PAI Checklists. PII and PAI training tapes were considered "passing" if they met the following criteria: (a) inclusion of all five of the Bergan objectives and (b) at least 80% rating in the appropriate condition.

Observation procedures. Instruction on the Behavior Observation System (BOS) for observing student and consultee behaviors in the classroom consisted of approximately ten hours of training. During the first day, training focused on review and explanation of the BOS protocol and definitions (i.e., on- and off-task behaviors, frequently occurring target behaviors of talking out and out of seat, "1," "2," "3" system for baseline and treatment integrity). In addition, introduction was provided for use of the recorded prompt audio-cassette and ear plug method with 10 second intervals.
During the second and third training sessions, the observers watched videotapes and coded behaviors of children and teachers in actual classrooms. Feedback and discussion was provided following coding of videotapes. In addition, training sessions were also conducted using actual classrooms at a university laboratory school (behind one-way mirrors). Training criteria of interobserver percent agreement was established at 80% with the primary observer on two consecutive videotaped observations and two consecutive observations in the laboratory school classroom. The project researcher served as primary observer during training. Training probes were conducted midway through the study to increase reliability between observers.

**Baseline and intervention development/recording.** Consultants were instructed on proper techniques in establishing baseline measurement procedures during the PII, as well as baseline recording procedures using the BIRF. Explanations and examples were used to present information to consultants. A major portion of this training area was focused on the development of interventions. The interventions presented in Appendix N were used as study examples. In addition, training highlighted the following criteria for inclusion in intervention planning: (a) an immediate response when the target behavior (and/or an alternative behavior) occurred,
(b) a specified goal for treatment success, (c) a long-term reward, (d) positive reinforcement (i.e., praise) for appropriate behavior, and (e) written, observable steps. Training time consisted of approximately four hours and was conducted in a group format.

Undergraduate Training

The PII and PAI Checklists (described in detail earlier) were rated by three undergraduate level psychology students enrolled in an independent study class, as well as the project researcher. Training was conducted during two separate times, as coding was conducted over two semesters.

For each checklist training, the same steps were followed. Initial training techniques included didactic presentation and discussion with the use of a coding manual (see Appendix C). To become familiar with consultation interviews, coders listened to audiotaped interviews of two simulated consultation interviews (i.e., a PII and a PAI by the project researcher and an assistant) while following along with the manual.

Simulated PII and PAI tapes were rated using the checklists. Performance of each coder was evaluated by the project researcher and ratings were compared to the other coder. At least 85% agreement with the primary coder on four previously coded interviews (two PII and two PAI) were achieved prior to actual case coding.
Integrity of Interviews

PII Checklist

In order to assess the degree to which the consultant followed PII objectives, the Problem Identification Interview Checklist (PII Checklist; Appendix G) was used. Rating of 31 PII tapes was conducted by two primary coders. One of the case interviews was not coded due to a failure in audiotape recording. Scoring of the PII checklist for each case was as follows: (a) total number of general objectives observed (out of 15) and (b) number of objectives specified by Bergan & Kratochwill (1990; out of 5).

The integrity of implementation on general objectives of the PII ranged from 67% to 100% (M = 92%), while integrity of Bergan's objectives ranged from 60% to 100% (M = 95%). To determine the reliability of the coded interviews using the PII Checklist, a second trained coder independently rated a subset of the PII tapes. Interrater agreement was used to show the percentage agreement for both categories, general objectives and Bergan objectives, and was computed as the number of agreements divided by the number of agreements plus disagreements and multiplied by 100 (Foster & Cone, 1986).

The independent ratings of PII implementation were established for 14 out of 31 interviews (45%). Each category of the PII yielded the following averages for
interobserver agreement: 95% for general objectives (range 80% - 100%) and 99% for Bergan objectives (range 80% - 100%).

**PAI Checklist**

In order to assess the degree to which the consultant followed PAI objectives, the Problem Analysis Interview Checklist (PAI Checklist; Appendix H) was used. The PAI tapes were rated by trained coders and scored as follows: (a) total number of general objectives observed and (b) number of objectives specified by Bergan & Kratochwill (1990). The PAI Checklist is comparable to the PII Checklist in that the total number of objectives is 15 and the number of objectives specified by Bergan & Kratochwill (1990) is 5.

The integrity of implementation on general objectives of the PAI ranged from 67% to 100% (M = 89%), while integrity of Bergan's objectives ranged from 60% to 100% (M = 92%). To determine the reliability of the coded interviews using the PAI Checklist, interrater agreement was computed in the same manner as the PII Checklist: the number of agreements divided by the number of agreements plus disagreements and multiplied by 100 (Foster & Cone, 1986).

The independent ratings of PAI implementation were established for 15 cases (47%). Each category of the PAI yielded the following averages for interobserver
agreement: 96% for general objectives (range 80% - 100%) and 96% for Bergan objectives (range 80% - 100%).
RESULTS

Descriptive Analyses

Consultee Attributions of Student Behavior

Prior to meeting with the consultant for the PII, each consultee completed the Teacher Attribution Scale (TAS). This instrument was used in order to obtain consultee attributions regarding student behavior problems. A summary of mean scores and standard deviations for each factor of the TAS is presented in Table 3.

Table 3

Means and Standard Deviations for Factors on Teacher Attribution Scale

<table>
<thead>
<tr>
<th>Factor (items)</th>
<th>Item Mean</th>
<th>Standard Deviation</th>
<th>Factor Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Control</td>
<td>3.19</td>
<td>.28</td>
<td>19.14</td>
</tr>
<tr>
<td>(1-3, 9, 13, 17)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locus</td>
<td>2.60</td>
<td>.42</td>
<td>15.60</td>
</tr>
<tr>
<td>(5, 7, 10, 12, 16, 20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Control</td>
<td>3.32</td>
<td>.56</td>
<td>16.60</td>
</tr>
<tr>
<td>(4, 6, 8, 15, 19)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stability*</td>
<td>2.20</td>
<td>.79</td>
<td>6.60</td>
</tr>
<tr>
<td>(11, 14, 18)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Item means refer to average rating for items within each factor. All items are scored on a 5-point scale: 1 = never true, 2 = infrequently true, 3 = sometimes true, 4 = often true, 5 = always true. n = 29. *n = 28; one consultee did not answer items on this scale.

The consultee ratings of attributions summarized in Table 3 appear to indicate that, overall, consultees
attributed student behavior to a lack of the student's own control over the student's behavior problem in the classroom.

Consultee Preference for Service Delivery

The Preference for Service Delivery Scale (PSDS) was completed by each consultee prior to the PII. Consultees were instructed to rate one of three service delivery models (i.e., referral for evaluation, consultation, counseling) as the most preferred for the referred case. Table 4 displays item content, as well as frequency and percentage of items for the PSDS.

Table 4
Frequency and Percentage of Consultee Ratings of Preference for Service Delivery

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral for a special education or Section 504 evaluation</td>
<td>5 (18%)</td>
</tr>
<tr>
<td>Consultation</td>
<td>7 (25%)</td>
</tr>
<tr>
<td>Counseling provided by a third-party professional</td>
<td>8 (29%)</td>
</tr>
<tr>
<td>Consultation + Counseling</td>
<td>5 (18%)</td>
</tr>
<tr>
<td>Referral + Consultation + Counseling</td>
<td>3 (11%)</td>
</tr>
</tbody>
</table>

Note. n = 28. Four consultees did not complete the PSDS.

As shown in Table 4, most of the consultees in the sample rated counseling and consultation as the most preferred services for the referred cases. In addition,
five consultees chose both consultation and counseling as preferable for improved student outcomes.

**Consultant Verbal Interaction Style**

In this study, a collaborative versus expert style of consultant verbal interaction was assessed through independent ratings of verbal interaction style, as well as consultee perceptions. To be scored as collaborative on the independent ratings, consultants were directed to provide a high percentage of required prompts for consultee participation during meetings. The level of consultee participation and consultant support was also assessed via consultee ratings. The degree of collaboration during consultation meetings was measured using three separate instruments. Outcomes and descriptive analyses are presented below.

**Independent Ratings of Verbal Interaction Style**

During the PII and the PAI, consultant verbal interaction style was manipulated to meet criteria for either the collaborative or expert condition. Each interview was coded by independent judges using the PII Checklist and the PAI Checklist.

**Problem Identification Interview Checklist.** The PII Checklist was used to code the degree to which the consultant provided the required prompts for consultee input on eight of the PII objectives, as well as whether or not the consultant met criteria for support statements
during the PII. Criteria for support statements were five or more for the collaborative condition and no more than two for the expert condition. In addition, input was indicated when the consultee provided input for an objective. A PII Collaboration Score was obtained by summing the total number of consultant prompts and the total number of input statements given by the consultee. In addition, whether the consultant met the criteria of support statements for the relevant condition (i.e., score of "1") was included in the total score. Means and ranges for consultant prompts and consultee input statements, as measured by the PII Checklist, are presented in Table 5.

Table 5

<table>
<thead>
<tr>
<th>Category</th>
<th>Collaborative* Mean</th>
<th>Collaborative* Range</th>
<th>Expertb Mean</th>
<th>Expertb Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant Prompt</td>
<td>6.81</td>
<td>1 - 9</td>
<td>.60</td>
<td>0 - 3</td>
</tr>
<tr>
<td>Consultee Input</td>
<td>6.37</td>
<td>0 - 8</td>
<td>2.53</td>
<td>0 - 4</td>
</tr>
<tr>
<td>Collaboration Score</td>
<td>13.19</td>
<td>1 - 17</td>
<td>3.13</td>
<td>0 - 5</td>
</tr>
</tbody>
</table>

Note. Consultant prompts can range from 0 to 9. Consultee input statements can range from 0 to 8. Collaboration score can range from 0 to 17.
*n = 16.  b*n = 15; one PII was not coded due to audiotaping difficulties.

The mean ratings displayed in Table 5 indicate that, in general, the collaborative consultants encouraged more
consultee input than those in the expert condition. In addition, consultee participation occurred more often in the collaborative condition than in the expert condition.

**Problem Analysis Interview Checklist.** The PAI Checklist was used to score the degree to which the consultant provided the required prompts for consultee input on 11 of the PAI objectives, as well as whether the consultant met criteria for support statements during the meeting. In addition, input was indicated when the consultee provided input for an objective. A PAI Collaboration Score was obtained in the same manner as the PII Collaboration Score. Means and ranges for consultant prompts and consultee input statements for each verbal interaction condition are presented in Table 6.

Table 6

**Means and Ranges for PAI Ratings of Consultant Verbal Interaction Style**

<table>
<thead>
<tr>
<th>Category</th>
<th>Collaborative Mean</th>
<th>Collaborative Range</th>
<th>Expert Mean</th>
<th>Expert Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant Prompt</td>
<td>9.00</td>
<td>4 - 12</td>
<td>.75</td>
<td>0 - 8</td>
</tr>
<tr>
<td>Consultee Input</td>
<td>7.13</td>
<td>3 - 10</td>
<td>2.31</td>
<td>0 - 5</td>
</tr>
<tr>
<td>Collaboration Score</td>
<td>16.13</td>
<td>7 - 22</td>
<td>3.06</td>
<td>1 - 11</td>
</tr>
</tbody>
</table>

**Note.** Consultant prompts can range from 0 to 12. Consultee input statements can range from 0 to 11. Collaboration score can range from 0 to 23. 

*\(n = 16\); \(b n = 16\).
As shown in Table 6, the mean ratings indicate that consultants in the collaborative condition presented more prompts for consultee participation. In addition, consultee input was scored more often for consultees in the collaborative condition. Total scores for use in subsequent analyses were computed as follows: Total Collaboration Score = PII + PAI collaboration scores.

**Consultee Perceptions of Verbal Interaction Style**

Following the PAI, consultees were asked to complete the Verbal Interaction in Consultation - Teacher Rating (VIC-TR). Consultees responded to each item by rating their agreement with each statement pertaining to consultant verbal interaction and support during the interview. A summary of means and standard deviations for each item, as well as for each factor, is presented in Table 7.

The factor means displayed in Table 7 indicate that consultee perceptions of consultant collaboration (Factor 1) differed slightly between the two conditions, with consultees in the collaborative condition perceiving the consultant as more collaborative. There was, however, no difference between conditions with regard to consultee perceptions of consultant support (Factor 2). Item means on the VIC-TR reveal that consultees in the expert condition perceived the consultant as making most of the decisions during the meeting, including decisions
regarding the choice of intervention options (items 4 and 7).

Table 7

Means and Standard Deviations for Consultee Ratings of Consultant Verbal Interaction

<table>
<thead>
<tr>
<th>Question and Content</th>
<th>Collaborative*</th>
<th>Expert*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td><strong>1</strong> Consultant concentrated on own choice of topics, rather than my choice</td>
<td>4.43</td>
<td>1.13</td>
</tr>
<tr>
<td><strong>2</strong> Consultant focused on data or facts, rather than my feelings and opinions</td>
<td>4.14</td>
<td>1.21</td>
</tr>
<tr>
<td><strong>3</strong> Consultant was interested in my input</td>
<td>4.29</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>4</strong> Consultant made most of the decisions during the meeting</td>
<td>4.14</td>
<td>1.21</td>
</tr>
<tr>
<td><strong>5</strong> Consultant allowed me to establish the interview process</td>
<td>3.57</td>
<td>1.13</td>
</tr>
<tr>
<td><strong>6</strong> Consultant seemed to understand severity of child's behavior</td>
<td>3.86</td>
<td>1.57</td>
</tr>
<tr>
<td><strong>7</strong> Consultant did not allow me to choose among different options</td>
<td>4.57</td>
<td>.79</td>
</tr>
<tr>
<td><strong>8</strong> Consultant was polite and well-mannered</td>
<td>5.00</td>
<td>.00</td>
</tr>
<tr>
<td><strong>9</strong> Consultant expressed empathy</td>
<td>4.57</td>
<td>.79</td>
</tr>
<tr>
<td><strong>10</strong> Consultant wanted to identify my strengths</td>
<td>4.43</td>
<td>.79</td>
</tr>
</tbody>
</table>

Factor 1: Collaboration  
(sum of items 1-5, 7)  
25.14 4.22 20.25 6.20

Factor 2: Support  
(sum of items 6, 8-10)  
17.86 2.27 17.25 2.60

Note. * = Scoring is reversed for this item. All items are scored on a 5-point scale: 1 = strongly disagree to 5 = strongly agree.  
'n = 7; 2 consultees did not return the VIC-TR. 'n = 8; 2 consultees did not return the VIC-TR.
Reliability of the VIC-TR was evaluated during the current study and found to be adequate for the "Collaboration" factor, with a coefficient alpha of .85 ($n = 15$). In addition, a coefficient alpha of .59 was computed for the "Support" factor ($n = 15$). Because the internal consistency of the "Support" factor is inadequate (Salvia & Ysseldyke, 1991), this scale should be interpreted cautiously.

**Intervention Plan**

During the PAI, an intervention plan was developed for the consultee to implement in his or her classroom. Each of the case interventions was evaluated on two dimensions: complexity and consultee acceptability.

**Independent Ratings of Complexity**

Independent judges (i.e., a graduate student in psychology and an undergraduate student in psychology) evaluated intervention complexity by listening to the audio tape-recordings of each PAI. Ratings of complexity were assigned using the Complexity of Intervention Scale (CIS). Items included in the CIS focused on the specification and clarity of described steps, preparation time involved for consultee, time involved for consultee to implement, and the overall difficulty level of intervention implementation. Judges responded to each of the 4 Likert-type items by rating their agreement with each statement (1 = very complex to 6 = very simple for
item 1; 1 = very much time to 6 = very little time for items 2 and 3; and 1 = very difficult to 6 = very easy for item 4). Means and standard deviations of judges' ratings of intervention complexity for each verbal interaction condition are presented in Table 8.

Table 8

Means and Standard Deviations for Ratings of Intervention Complexity

<table>
<thead>
<tr>
<th>Item and Content</th>
<th>Collaborativea Mean</th>
<th>Expertb Mean</th>
<th>Collaborativea SD</th>
<th>Expertb SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Specification of steps</td>
<td>2.12</td>
<td>2.19</td>
<td>1.15</td>
<td>1.17</td>
</tr>
<tr>
<td>2 Preparation time</td>
<td>2.06</td>
<td>2.12</td>
<td>.93</td>
<td>.62</td>
</tr>
<tr>
<td>3 Implementation time</td>
<td>2.00</td>
<td>2.56</td>
<td>.82</td>
<td>.81</td>
</tr>
<tr>
<td>4 Ease of use</td>
<td>1.69</td>
<td>2.31</td>
<td>.60</td>
<td>.79</td>
</tr>
<tr>
<td><strong>Total CIS Score</strong></td>
<td><strong>7.87</strong></td>
<td><strong>9.19</strong></td>
<td><strong>2.60</strong></td>
<td><strong>3.02</strong></td>
</tr>
</tbody>
</table>

*Note.* Each item was reversed scored; the higher the rating, the more complex. Complexity scores can range from 4 to 24. a_n = 16; b_n = 16.

According to Table 8, the mean ratings on the total CIS were lower for the collaboration condition than for the expert condition. This was particularly evident with respect to the time involved (item 3) and ease of use (item 4).
Consultee Ratings of Intervention Acceptability

Following the PAI, consultees completed the Intervention Rating Profile - 15. This instrument provided a measure of intervention acceptability for the plan developed during the PAI. A summary of the mean score and standard deviation for the total scale is presented in Table 9.

Table 9
Means, Standard Deviations, and Ranges for Consultee Ratings of Intervention Acceptability

<table>
<thead>
<tr>
<th>IRP-15 Scale</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative</td>
<td>76.64</td>
<td>13.45</td>
<td>49</td>
<td>90</td>
</tr>
<tr>
<td>Expert</td>
<td>75.64</td>
<td>10.87</td>
<td>56</td>
<td>88</td>
</tr>
</tbody>
</table>

Note. All items are scored on a 6-point scale: 1 - strongly disagree to 6 - strongly agree. Acceptability ratings can range from 15 to 90. \(^a_n = 14; \quad ^b_n = 14.\) The IRP-15 was not returned by 4 consultees (2 in each condition).

As summarized in Table 9, consultees indicated relatively high levels of treatment acceptability. In addition, consultee ratings revealed no marked differences between the verbal interaction conditions.

Student Behavior Change

In this study, student behavior change was analyzed in three ways. First, occurrences of the target behavior were examined through classroom observational data during baseline and intervention periods. Second, occurrences of student behavior were examined through consultee recording
during baseline and intervention. Finally, perceptions of the severity of student behavior were obtained prior to and following intervention implementation.

**Observed Student Behavior Change**

Student behavior was directly observed in the classroom setting using the BOS. For 30 cases, observations were conducted once during the baseline period and twice during the intervention period. For 2 cases, the second intervention observation was not conducted due to class schedule changes. Means and standard deviations for occurrences of target behaviors are summarized for each verbal interaction condition in Table 10. Sample sizes are indicated in parentheses below respective means.

Table 10

**Means and Standard Deviations of Target Behaviors for Observed Student Behavior**

<table>
<thead>
<tr>
<th>Observation period</th>
<th>Collaborative Mean</th>
<th>Collaborative SD</th>
<th>Expert Mean</th>
<th>Expert SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(11)</td>
<td>(15)</td>
<td>(14)</td>
<td>(11)</td>
</tr>
<tr>
<td>Baseline</td>
<td>29%</td>
<td>20.01</td>
<td>19%</td>
<td>12.77</td>
</tr>
<tr>
<td>Intervention Week 1</td>
<td>27%</td>
<td>21.93</td>
<td>16%</td>
<td>10.82</td>
</tr>
<tr>
<td>Intervention Week 2</td>
<td>19%</td>
<td>18.02</td>
<td>15%</td>
<td>13.45</td>
</tr>
</tbody>
</table>

*Note.* Missing data indicate nonoccurrence of target behavior during observation period.
For each case, the change in the observed target behavior was computed by subtracting the mean of the two intervention observations from the baseline observation. A score for observed student behavior change was calculated for 26 cases; student behavior change was not computed for 6 cases due to the nonoccurrence of the target behavior during the baseline observation and/or intervention observations. This score for student behavior change (i.e., BOSOUT) was used in subsequent analyses.

Consultee Recording of Student Behavior Change

Student behavior was also collected through consultee recordings of the target behavior during the baseline and intervention periods. A student behavior score was computed for each "adequate" week (i.e., at least half the week) of consultee recordings. For cases in which less than half of the intervals were recorded, a student behavior score was not computed. During the baseline period, adequate student behavior was recorded for 20 of the cases. During the first and second week of intervention, adequate student behavior was collected for 16 and 14 of the cases, respectively. A summary of the means and standard deviations of recorded student behavior is presented in Table 11. Because sample sizes varied across conditions and recording periods, sample size is reported in parentheses below respective means.
Table 11

**Means and Standard Deviations of Target Behaviors for Recorded Student**

<table>
<thead>
<tr>
<th>Recording period</th>
<th>Verbal Interaction Condition</th>
<th>Collaborative Mean</th>
<th>SD</th>
<th>Expert Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>72%</td>
<td>28.09</td>
<td>65%</td>
<td>26.44</td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td>(10)</td>
<td></td>
<td>(10)</td>
<td></td>
</tr>
<tr>
<td>Intervention Week 1</td>
<td></td>
<td>64%</td>
<td>35.80</td>
<td>46%</td>
<td>20.76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(8)</td>
<td></td>
<td>(8)</td>
<td></td>
</tr>
<tr>
<td>Intervention Week 2</td>
<td></td>
<td>53%</td>
<td>32.90</td>
<td>45%</td>
<td>30.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(6)</td>
<td></td>
<td>(8)</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Missing data indicate inadequate recording by consultee.

The change in student behavior, as recorded by the consultee, was also computed for each case. A score for recorded student behavior change was computed by subtracting the mean of the two intervention recordings from the baseline recording. This score (i.e., BIRFOUT) was calculated for 20 cases and used in subsequent data analyses. Student behavior change was not computed for 12 of the cases due to the consultee failure to collect data during the baseline phase or during both intervention phases.

**Consultee Perceptions of Student Behavior Change**

The Student Progress Rating Scale (SPRS) was completed by each consultee in order to assess consultee perception of the severity of student behavior.
Consultees responded to each of the 8 Likert-type items by rating their agreement (1 = strongly disagree to 5 = strongly agree) with each statement concerning the target behaviors. Reliability on the SPRS for the primary target behavior was investigated in the current study using Cronbach's coefficient alpha. An alpha of .74 was obtained for the 4-item scale (n = 32). Caution should be used when interpreting the reliability of this measure due to low sample size.

Consultee perceptions of student behavior were obtained by administering the SPRS prior to intervention implementation, as well as after the two week intervention period. The calculated difference between the SPRS and the SPRS-2 for the primary target behavior was used as a score of perceived student behavior change (i.e., SPRSOUT). A summary of the means and standard deviations for perceived student behavior change across each condition is presented in Table 12.

The mean ratings displayed in Table 12 indicate that, overall, consultees perceived some change in student behavior. Mean ratings also indicate no differences in perceived student behavior between collaborative and expert conditions.

**Integrity**

For the present study, integrity was measured in several ways. First, the degree to which the consultee
Table 12

Means and Standard Deviations of Target Behaviors for Perceived Student Behavior Change

<table>
<thead>
<tr>
<th>Measure</th>
<th>Verbal Interaction Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collaborative*</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>SPRS</td>
<td>16.71</td>
</tr>
<tr>
<td>SPRS-2</td>
<td>14.07</td>
</tr>
<tr>
<td>Perceived Student Change</td>
<td>2.64</td>
</tr>
</tbody>
</table>

Note. Perceived student behavior change for each case was computed by subtracting the ratings of the primary target behavior on the SPRS-2 from the ratings on the SPRS. Higher scores indicate greater perceived change. 
*a n = 14; two consultees did not complete the SPRS-2. 
*b n = 13; three consultees did not complete the SPRS-2.

recorded the target behavior was examined during both baseline and intervention periods. Second, implementation of the consultee's typical response (e.g., verbal reprimand) contingent on the target behavior was directly observed during the baseline period. Third, implementation of the immediate consequence of the intervention (e.g., cross out smiley face) was directly observed during the two week intervention period. Finally, examination and utilization of the permanent products of the intervention were observed in each classroom. Results of each of the measures of integrity are presented below.
Consultee Recording of Target Behavior

During the baseline and intervention periods, the consultee was asked to record the occurrence of the target behavior using the Baseline and Intervention Record Form (BIRF). An integrity score was computed for each week by dividing the number of written marks by the total number of possible marks for that week. Results of consultee recordings of the target behavior for three weeks are presented in Table 13.

Table 13
Means and Standard Deviations for Integrity of Consultee Recording

<table>
<thead>
<tr>
<th>Recording week</th>
<th>Verbal Interaction Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collaborative Mean</td>
</tr>
<tr>
<td>Baseline</td>
<td>60% 34.0</td>
</tr>
<tr>
<td>Intervention week 1</td>
<td>53% 43.0</td>
</tr>
<tr>
<td>Intervention week 2</td>
<td>29% 40.0</td>
</tr>
</tbody>
</table>

Note. *n = 16; †n = 16.

As summarized in Table 13, mean integrity of consultee recordings on the BIRF indicate that data collected by consultees decreased during the consultation process. In addition, there was a trend for consultees in the expert condition to collect data with a higher degree of integrity than consultees in the collaborative condition. For each case, the average of all three BIRF scores was used in subsequent data analyses.
Implementation of Typical Classroom Response

During baseline observations, observers rated the degree to which the consultee implemented his or her typical response contingent on occurrence of the target behavior. Using the BOS, one of the following ratings was used: 1 = no response, 2 = deviation from response, or 3 = agreement with response. Results of the observed ratings of baseline integrity across the two conditions are presented in Table 14.

Table 14
Means and Standard Deviations for Observed Baseline Integrity

<table>
<thead>
<tr>
<th>Level of Implementation</th>
<th>Collaborative Mean</th>
<th>Collaborative SD</th>
<th>Expert Mean</th>
<th>Expert SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - No response</td>
<td>89% 16.0</td>
<td></td>
<td>92% 11.0</td>
<td></td>
</tr>
<tr>
<td>2 - Deviation from response</td>
<td>9% 15.0</td>
<td></td>
<td>3% 6.0</td>
<td></td>
</tr>
<tr>
<td>3 - Agreement with response</td>
<td>3% 6.0</td>
<td></td>
<td>5% 9.0</td>
<td></td>
</tr>
</tbody>
</table>

Note. *n = 10; For 4 cases, the target behavior did not occur during the baseline observation(s); and, for 2 cases, the consultee’s typical response toward the target behavior was not observable (e.g., ignore student). *n = 15; For 1 case, the target behavior did not occur during the baseline observation(s).

As summarized in Table 14, the mean baseline integrity ratings indicate that, overall, consultees did not implement their typical classroom procedure. In most cases, consultees were observed as not responding to the
target behavior. Differences between the consultation conditions indicated that, in general, consultees in the collaborative condition tended to respond to the behavior in some manner more often than consultees in the expert condition.

**Implementation of Immediate Consequence**

For 29 cases, two observations of the implementation of immediate consequences were conducted with the BOS. The second intervention observation for three cases was not conducted due to: class schedule changes (n = 2) and poor classroom conditions (e.g., seating arrangements; n = 1).

Classroom observers scored the degree to which the consultee implemented the programmed consequence (i.e., according to the intervention plan) contingent on the occurrence of the target behavior. The same rating system described above was used. Each intervention included either a "response cost" procedure, involving the removal of a reinforcer contingent upon the occurrence of the target behavior or a positive response contingent upon the occurrence of an alternative behavior. Twenty-eight of the interventions included the response cost component, while 5 included the positive response component. Results of the observed integrity ratings for the two weeks of intervention are presented in Tables 15 and 16.
### Table 15

**Means and Standard Deviations for Observed Treatment Integrity of Immediate Consequence for Week One**

<table>
<thead>
<tr>
<th>Level of Implementation</th>
<th>Verbal Interaction Condition</th>
<th>Collaborative&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Expert&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>1 - No response</td>
<td></td>
<td>92%</td>
<td>13.0</td>
</tr>
<tr>
<td>2 - Deviation from</td>
<td></td>
<td>6%</td>
<td>12.0</td>
</tr>
<tr>
<td>response</td>
<td></td>
<td>2%</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Note. <sup>a</sup>n = 12; in 4 cases, the target behavior did not occur. <sup>b</sup>n = 14; in 1 case, the target behavior did not occur. In another case, observation of the immediate consequence was not usable due to poor classroom conditions.

### Table 16

**Means and Standard Deviations for Observed Treatment Integrity of Immediate Consequence for Week Two**

<table>
<thead>
<tr>
<th>Level of Implementation</th>
<th>Verbal Interaction Condition</th>
<th>Collaborative&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Expert&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>1 - No response</td>
<td></td>
<td>87%</td>
<td>15.0</td>
</tr>
<tr>
<td>2 - Deviation from</td>
<td></td>
<td>12%</td>
<td>15.0</td>
</tr>
<tr>
<td>response</td>
<td></td>
<td>1%</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note. <sup>a</sup>n = 11; in four cases, the target behavior did not occur; in one case, the observation was not conducted due to changes in class schedule. <sup>b</sup>n = 15; in one case, the observation was not conducted due to changes in class schedule.
As summarized in Tables 15 and 16, the mean ratings for observed treatment integrity indicate that, in general, consultees did not implement the programmed consequence when the target behavior occurred. Comparisons of the two consultation conditions reveal a trend for consultees in the expert condition to implement the immediate consequence, as planned, more than consultees in the collaborative condition. The means also indicate that consultees in the collaborative condition responded to the target behavior more often during the second week than the first week; however, these responses included deviations of the planned consequences (e.g., verbal reprimand) versus the actual programmed consequence. For subsequent data analyses, an overall observed treatment integrity score was used by computing the mean of the first and second intervention observations for each case.

Utilization of Permanent Product

Each intervention plan included the display of a permanent product in the classroom. Treatment integrity was also measured by examination of the (a) presence of the permanent product and (b) utilization of the permanent product. Observers were instructed to provide one of the following scores on the BOS: a "0" if the permanent product was not evident, a "1" if the permanent product was evident but not used, or a "2" if the permanent
product was evident as well as used during the observation period. A total permanent product treatment integrity score was computed by summing scores from both intervention observations; thus, the range for the total permanent product treatment integrity score was 0 to 4. Total scores were used in subsequent data analyses. The frequency and percent of permanent product utilization across observations are summarized in Table 17.

Table 17

Frequency and Percent of Utilization of Permanent Product

<table>
<thead>
<tr>
<th>Verbal Interaction Condition</th>
<th>Collaborative&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Expert&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Week 1</td>
<td>Week 2</td>
</tr>
<tr>
<td>0 - Not evident</td>
<td>5 (31%)</td>
<td>9 (56%)</td>
</tr>
<tr>
<td>1 - Evident, not used</td>
<td>8 (50%)</td>
<td>2 (13%)</td>
</tr>
<tr>
<td>2 - Evident and used</td>
<td>3 (19%)</td>
<td>5 (31%)</td>
</tr>
</tbody>
</table>

<sup>Note.  *n = 16;  b n = 16. The score for each week can range from 0 to 2.  As indicated in Table 17, the permanent product was not evident during the first week of intervention in 5 of the collaborative cases and in 6 of the expert cases. During the second week, there was no indication of the permanent product in 6 of the collaborative cases and 4 of the expert cases. For approximately 37% of the expert</sup>
cases, there was evidence of both the presence and utilization of the permanent product during both weeks of intervention. The overall evidence of the permanent product for the expert condition (i.e., cases in the "1" and "2" categories) was 62% for week one and 75% for week two. In comparison, only 19% of the collaborative cases actually utilized the permanent product during week one; this use did increase during the second week (31%). However, there was a notable difference in the overall evidence of permanent product for the collaborative condition from week one (69%) to week two (44%).

Consultee Ratings of Satisfaction

Consultees rated the Teacher Satisfaction Questionnaire (TSQ) at the end of the consultation process. Consultees rated each of the 8 Likert-type items by rating their agreement (1 = strongly disagree to 5 = strongly agree) with each statement. Reliability was assessed during this study (n = 27) and determined to be adequate (Cronbach’s Alpha = .84). Caution should be used when interpreting the reliability of this measure due to low sample size. The items, means, and standard deviations of the TSQ are presented in Table 18.

The mean ratings displayed in Table 18 indicate that, in general, consultees were relatively satisfied with the process and outcomes of the consultation process. This was particularly evident with respect to consultee ratings
Table 18

Means and Standard Deviations for Consultee Ratings of Consultation Satisfaction

<table>
<thead>
<tr>
<th>Question and Content</th>
<th>Collaborative Mean</th>
<th>SD</th>
<th>Expert Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 This intervention was a good way to approach the child's behavior problem</td>
<td>3.64</td>
<td>1.34</td>
<td>3.92</td>
<td>.86</td>
</tr>
<tr>
<td>2 This intervention improved the child’s behavior; it is not noticeably different from classmate's behavior</td>
<td>2.93</td>
<td>1.33</td>
<td>2.46</td>
<td>1.20</td>
</tr>
<tr>
<td>*3 The consultant did not offer useful information</td>
<td>4.14</td>
<td>1.10</td>
<td>4.31</td>
<td>.95</td>
</tr>
<tr>
<td>4 I am satisfied with changes in the child’s behavior</td>
<td>2.71</td>
<td>1.44</td>
<td>2.54</td>
<td>1.33</td>
</tr>
<tr>
<td>5 I would be willing to work with consultant in the future</td>
<td>4.21</td>
<td>.80</td>
<td>3.77</td>
<td>1.42</td>
</tr>
<tr>
<td>*6 The consultation process was not a valuable use of my time</td>
<td>3.86</td>
<td>1.29</td>
<td>3.92</td>
<td>1.32</td>
</tr>
<tr>
<td>*7 This child’s behavior is too severe to be handled by regular classroom interventions</td>
<td>3.14</td>
<td>1.23</td>
<td>3.85</td>
<td>1.41</td>
</tr>
<tr>
<td>8 Overall, I am very satisfied with the consultation process</td>
<td>3.64</td>
<td>1.34</td>
<td>3.77</td>
<td>.93</td>
</tr>
<tr>
<td><strong>TSQ Total</strong> (sum of all items)</td>
<td>28.29</td>
<td>4.43</td>
<td>30.63</td>
<td>6.80</td>
</tr>
</tbody>
</table>

**Note.** * = Scoring is reversed for this item. Satisfaction scores can range from 4-40. *n = 14; *n = 13. The TSQ was not returned by 5 consultees.

Consultees appeared less satisfied with outcomes related to the child's behavior. Overall, there were no marked differences across consultation conditions in consultee ratings of satisfaction.
Major Research Questions

Question 1: What is the relationship among the methods for assessing treatment integrity?

In order to investigate the relationship among the different measures for assessing treatment integrity (i.e., the average of three BIRF scores, the mean of BOS observed integrity of the immediate consequence for the two weeks of intervention, and the total permanent product integrity score), scores for each of the measures were intercorrelated using Pearson product moment correlations. A modified Bonferroni procedure was used to control for familywise error rate (Keppel, 1982). The resulting correlation matrix is presented in Table 19. Because sample sizes varied across comparisons, n sizes are reported in parentheses underneath respective correlations.

Table 19

Correlations Among Multiple Measures of Treatment Integrity

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. BIRF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. BOS</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(29)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PPU</td>
<td>.11</td>
<td>.52*</td>
<td></td>
</tr>
<tr>
<td>(32)</td>
<td>(29)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. BIRF = Behavior Intervention Record Form Integrity; BOS = Behavior Observation System Integrity; PPU = Permanent Product Utilization Integrity. *p < .01, one-tailed.
The correlations displayed in Table 19 indicate a moderate and significant relationship between scores utilizing observational methods (i.e., the BOS and the PPU). The correlations between the BIRF measure, that is, teacher self-report, and both observational measures were very low. Thus, it appears that consultee recordings of the target behavior were not related to the actual implementation of the intervention.

**Question 2: To what extent are consultee variables related to treatment integrity?**

In order to examine the relationship between consultee variables and treatment integrity, various measures associated with consultees were correlated with the three integrity measures. Table 20 presents correlations between consultee variables and treatment integrity measures. A modified Bonferroni procedure was used to control for familywise error rate (Keppel, 1982).

As presented in Table 20, the level of education held by consultees was moderately and positively related to the integrity of data collection with the BIRF. In addition, years of employment had a negative correspondence with the utilization of the intervention permanent product. Although not significant, the "Locus" factor of the Child Problem Scale (CPS) showed a positive relationship with BOS integrity. All other correlations were not significant.
### Table 20

**Correlations Between Consultee Variables and Treatment Integrity Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>BIRF</th>
<th>BOS</th>
<th>PPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Education Level</td>
<td>.36*</td>
<td>.08</td>
<td>-.18</td>
</tr>
<tr>
<td>2. Years Employed</td>
<td>.13</td>
<td>-.16</td>
<td>-.39*</td>
</tr>
<tr>
<td>3. CPS1</td>
<td>.13</td>
<td>.27</td>
<td>.12</td>
</tr>
<tr>
<td>4. CPS2</td>
<td>-.12</td>
<td>.37</td>
<td>.17</td>
</tr>
<tr>
<td>5. CPS3</td>
<td>.01</td>
<td>.15</td>
<td>.05</td>
</tr>
<tr>
<td>6. CPS4</td>
<td>.11</td>
<td>.20</td>
<td>-.07</td>
</tr>
<tr>
<td>7. SPRS</td>
<td>-.10</td>
<td>.18</td>
<td>.06</td>
</tr>
</tbody>
</table>

**Note.** CPS1 = Child Problem Scale: Teacher Control; CPS2 = Locus; CPS3 = Child Control; CPS4 = Stability; SPRS = Student Progress Rating Scale: Pretest. *p < .05, one-tailed.

In order to further assess the relationship between teacher variables and treatment integrity, an examination of differences between teacher preferences for service delivery was conducted. For each case, the Preference for Service Delivery score was recoded in order to compare two groups: preference for referral (which included all cases with any indication of referral as a choice) and preference for consultation (which included all cases with
any indication of consultation, but not referral, as a choice). To determine if there were significant differences between preference, with regard to treatment integrity, multiple t-tests were conducted. Results indicated no differences between the preference for service delivery groups.

**Question 3: To what extent is baseline integrity related to treatment integrity?**

In order to examine the relationship between consultee baseline integrity (measured with the BIRF and the BOS) and treatment integrity variables, as measured with the same methods, correlations were computed using Pearson's product moment correlations. A modified Bonferroni procedure was used to control for familywise error rate (Keppel, 1982). The correlation matrix presented in Table 21 displays baseline and integrity relationships.

**Table 21**

**Correlations Between Baseline Integrity Measures and Treatment Integrity Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>BIRF</th>
<th>BOS</th>
<th>PPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. BOS1</td>
<td>-.17</td>
<td>-.15</td>
<td>-.23</td>
</tr>
<tr>
<td></td>
<td>(25)</td>
<td>(24)</td>
<td>(25)</td>
</tr>
<tr>
<td>2. BIRF1</td>
<td>.82*</td>
<td>.13</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>(32)</td>
<td>(29)</td>
<td>(32)</td>
</tr>
</tbody>
</table>

*Note. BOS1 = Behavior Observation System: Baseline Only; BIRF1 = Baseline-Intervention Record Form: Baseline Only. *p < .001, one-tailed.
Table 21 indicates a highly significant relationship between the BIRF collected during baseline and the total BIRF score for all three weeks. While this is to be expected since BIRF1 is a component of the total BIRF score, an additional analysis was conducted and revealed a significant correlation between BIRF1 and the mean of BIRF2 and BIRF3 \( (r = .63, p < .001) \). Again, it appears that the different methods of measuring integrity are not related.

**Question 4: To what degree are consultation process variables related to treatment integrity?**

To determine the relationship between consultation process variables and treatment integrity, the Collaboration Total Score, the CIS, the IRP-15, and the VIC-TR were correlated with the three measures of treatment integrity. A modified Bonferroni procedure was used to control for familywise error rate (Keppel, 1982). The results are presented in Table 22.

As Table 22 indicates, the two measures of collaboration (i.e., the Collaboration Total Score, as measured by the PII and PAI Checklists, and consultee ratings of consultant collaboration, as indicated by the VIC-TR) did not show a significant relationship with measures of treatment integrity. In fact, most of the correlations between collaboration and integrity were negative. Consultee ratings of acceptability of the intervention were found to have no relationship with
Table 22

Correlations Between Consultation Process Variables and Treatment Integrity Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>BIRF</th>
<th>BOS</th>
<th>PPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COLLTOT</td>
<td>-.15</td>
<td>-.30</td>
<td>-.14</td>
</tr>
<tr>
<td></td>
<td>(31)</td>
<td>(28)</td>
<td>(31)</td>
</tr>
<tr>
<td>2. VICTR-F1</td>
<td>-.06</td>
<td>-.07</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>(15)</td>
<td>(14)</td>
<td>(15)</td>
</tr>
<tr>
<td>3. VICTR-F2</td>
<td>.08</td>
<td>-.04</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>(15)</td>
<td>(14)</td>
<td>(15)</td>
</tr>
<tr>
<td>4. CIS</td>
<td>-.04</td>
<td>.40*</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>(32)</td>
<td>(29)</td>
<td>(32)</td>
</tr>
<tr>
<td>5. IRP-15</td>
<td>-.11</td>
<td>-.09</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>(28)</td>
<td>(26)</td>
<td>(28)</td>
</tr>
</tbody>
</table>

Note. COLLTOT = Collaboration Total Score; VICTR-F1 = Verbal Interaction in Consultation-Teacher Rating - Collaboration Factor; VICTR-F2 = Support Factor; CIS = Complexity of Intervention Scale; IRP-15 = Intervention Acceptability Profile-15.

*p < .05, one-tailed.

measures of treatment integrity. A positive correlation between complexity of the intervention and observed integrity was significant.

In order to determine if there were significant differences between consultation conditions, with regard to treatment integrity, univariate analyses were conducted. To control for problems of escalating Type I error rate, the familywise error rate was set at \( \alpha = .05 \). The critical significance level for the individual t-tests was computed as .05/3 = .017 using the Bonferroni
procedure (Winer, 1971). Results indicate that consultees in the expert condition implemented the immediate consequences (BOS integrity) more often than consultees in the collaborative condition, $t(28) = -2.27, p = .017$. There were no differences between the conditions for integrity of BIRF recordings, as well as for utilization of the permanent product.

Interactions Among Teacher and Process Variables

To further assess factors related to treatment integrity, an examination of the interaction between a teacher's preference for service delivery (e.g., referral for evaluation, behavioral consultation) and the consultation verbal style (e.g., expert versus collaborative) was conducted. Table 23 presents the mean permanent product utilization (PPU) recorded for cases within four separate conditions: (a) collaborative interaction and preference for referral, (b) expert interaction and preference for referral, (c) collaborative interaction and preference for consultation, and (d) expert interaction and preference for consultation.

As indicated in Table 23, the number of cases within each cell are small; therefore, a statistical analysis of these interactions was not conducted. These data do suggest that the collaborative/referral group exhibited lower levels of treatment integrity than the collaborative/consultation group. Also, it appears that
Table 23

**Permanent Product Utilization within Four Consultation Conditions**

<table>
<thead>
<tr>
<th>Preference for Service Delivery</th>
<th>Consultation Style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collaborative</td>
</tr>
<tr>
<td>Referral to Special Education</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td>Consultation</td>
<td>.65</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
</tr>
</tbody>
</table>

**Note.** Coefficients represent the mean Permanent Product Utilization score for each condition; Numbers in parentheses represent the sample size.

The expert/referral group exhibited higher treatment integrity than the collaborative/referral group.

**Question 5:** To what degree are consultation process variables related to consultation outcome variables?

To address this question, consultation process and outcome variables were examined through correlational analyses. A modified Bonferroni procedure was used to control for familywise error rate (Keppel, 1982). As indicated in Table 24, perceptions of consultee satisfaction are significantly related to the "Support" factor on the VIC-TR and the consultee's intervention acceptability ratings.

In addition, the TSQ approaches significance levels with the "Collaboration" factor on the VIC-TR. Table 24 also indicates a strong positive, yet not significant,
relationship between the IRP-15, VIC-TR, and BIRF recordings of student outcome.

Table 24

**Correlation Between Consultation Process Variables and Outcome Variables**

<table>
<thead>
<tr>
<th>Measure</th>
<th>BIRFOUT</th>
<th>SPRSOUT</th>
<th>BOSOUT</th>
<th>TSQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COLLTOT</td>
<td>-.15</td>
<td>.17</td>
<td>-.08</td>
<td>-.07</td>
</tr>
<tr>
<td>(20)</td>
<td>(27)</td>
<td>(26)</td>
<td>(27)</td>
<td></td>
</tr>
<tr>
<td>2. VICTR-F1</td>
<td>.48</td>
<td>.30</td>
<td>.01</td>
<td>.51</td>
</tr>
<tr>
<td>(10)</td>
<td>(13)</td>
<td>(13)</td>
<td>(13)</td>
<td></td>
</tr>
<tr>
<td>3. VICTR-F2</td>
<td>.36</td>
<td>.19</td>
<td>-.41</td>
<td>.75*</td>
</tr>
<tr>
<td>(10)</td>
<td>(13)</td>
<td>(13)</td>
<td>(13)</td>
<td></td>
</tr>
<tr>
<td>4. CIS</td>
<td>.19</td>
<td>-.11</td>
<td>-.17</td>
<td>.25</td>
</tr>
<tr>
<td>(20)</td>
<td>(27)</td>
<td>(27)</td>
<td>(27)</td>
<td></td>
</tr>
<tr>
<td>5. IRP-15</td>
<td>.47</td>
<td>.03</td>
<td>-.02</td>
<td>.59*</td>
</tr>
<tr>
<td>(18)</td>
<td>(25)</td>
<td>(24)</td>
<td>(25)</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** SPRSOUT = Student Progress Rating Scale Outcome; BOSOUT = Behavior Observation System Outcome; BIRFOUT = Baseline-Intervention Record Form Outcome; TSQ = Teacher Satisfaction Questionnaire. *p < .05, one-tailed.

**Question 6: To what extent is there a relationship between consultation outcome variables and treatment integrity?**

In order to investigate the extent to which treatment integrity is related to outcomes in consultation, the three treatment integrity measures were correlated with the three scores of student behavior change (i.e., perceived, as measured with the SPRS; recorded, as measured with the BIRF; and observed, as measured with the BOS), as well as consultee perceptions of satisfaction.
Table 25 displays the results of the correlations. A modified Bonferroni procedure was used to control for familywise error rate (Keppel, 1982).

The correlation matrix in Table 25 indicates that consultee utilization of permanent products was moderately related to student outcomes as measured by the BIRF recordings and consultee perceptions of satisfaction. The table also reveals that the majority of student outcome measures had little to no relationship with BIRF or BOS integrity. In some cases, this was a negative relationship. However, these correlations were not significant.

Table 25

**Correlations Between Integrity Variables and Treatment Outcome Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>BIRF</th>
<th>BOS</th>
<th>PPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. BIRFOUT</td>
<td>.21</td>
<td>.06</td>
<td>.54*</td>
</tr>
<tr>
<td></td>
<td>(20)</td>
<td>(18)</td>
<td>(20)</td>
</tr>
<tr>
<td>2. SPRSOUT</td>
<td>-.05</td>
<td>.17</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>(27)</td>
<td>(25)</td>
<td>(27)</td>
</tr>
<tr>
<td>3. BOSOUT</td>
<td>-.20</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>(27)</td>
<td>(26)</td>
<td>(27)</td>
</tr>
<tr>
<td>4. TSQ</td>
<td>-.04</td>
<td>.17</td>
<td>.40*</td>
</tr>
<tr>
<td></td>
<td>(27)</td>
<td>(25)</td>
<td>(27)</td>
</tr>
</tbody>
</table>

*Note. *p < .05, one-tailed.

In order to determine if differences in the degree of utilization of intervention permanent products were related to student outcomes, univariate analyses were
conducted. A comparison of consultation outcome measures was made with two groups: cases with a total permanent product utilization score greater than 50% and cases with a total permanent product utilization score less than or equal to 50%. Univariate t-tests revealed no differences between the groups. However, an interesting, although non significant result, is the difference between means on the BIRF student outcome for the two groups. For cases utilizing intervention permanent products at least 50% of the time, the mean BIRF outcome score was 26.7. For cases utilizing permanent products less than 50% of the time, the mean BIRF outcome score was only 2.5.

**Interactions Among Teacher and Process Variables**

To further assess factors related to teacher satisfaction, an examination of the interaction between a teacher’s preference for service delivery (e.g., referral for evaluation, behavioral consultation) and the consultation verbal style (e.g., expert versus collaborative) was conducted. Table 26 presents the mean TSQ ratings for cases within four separate conditions: (a) collaborative interaction and preference for referral, (b) expert interaction and preference for referral, (c) collaborative interaction and preference for consultation, and (d) expert interaction and preference for consultation.
Because the number of cases within each cell are small, a statistical analysis of TSQ means was not conducted. However, these data suggest that the collaborative/referral group (Condition A) was less satisfied than the collaborative/consultation group (Condition C). Also, it appears that the expert/referral group was more satisfied than the collaborative/referral group.

Table 26

**Teacher Satisfaction Ratings within Four Consultation Conditions**

<table>
<thead>
<tr>
<th>Preference for Service Delivery</th>
<th>Consultation Style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collaborative</td>
</tr>
<tr>
<td>Referral to Special Education</td>
<td>25.4</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td>Consultation</td>
<td>31.0</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
</tr>
</tbody>
</table>

*Note.* Coefficients represent the mean Teacher Satisfaction Questionnaire ratings; Numbers in parentheses represent the sample size.
DISCUSSION

The purpose of this study was to investigate the relationships among teacher, process, and outcome variables within school-based consultation. Specifically, the study attempted to extend our current knowledge about the degree to which teacher, process, and outcome variables might be associated with treatment integrity. The findings are discussed below in terms of the contribution to the current literature, limitations of the study, and some implications for future directions.

Perhaps the most striking finding from this study was that overall levels of treatment integrity were very low. Only about half of the consultees maintained adequate records of child behavior or were observed to utilize the intervention permanent products at any time during the two week intervention. Interestingly, these two methods for assessing integrity were not correlated. The degree to which a consultee recorded behavior had very little correspondence with their decision to employ the actual intervention. Further, during two systematic observations, the mean percentage of target behaviors that were consequated was approximately 4%. These low integrity scores are perplexing given that teachers requested consultation and, generally, rated the intervention recommendations favorably on the Intervention Rating Profile - 15 (IRP-15).
With regard to consultee variables, a negative relationship was identified between a consultee’s years of experience and their use of intervention permanent products. However, a significant positive correlation was identified between a consultee’s level of education and their maintenance of behavioral records. Also, a positive correlation was found between the complexity of an intervention and one integrity measure (i.e., the observed integrity of immediate consequences). This relationship is the opposite of what one would expect according to Gresham’s (1989) analysis of treatment integrity. It should be noted, however, that Gresham’s suggestion was not based on any data.

Perhaps more interesting than the significant correlations was the failure to identify many of the variables thought to influence treatment integrity. Although most of the current hypotheses in the applied psychology literature regarding treatment integrity are based primarily on consultee ratings of acceptability in analogue problem situations (e.g., Witt & Elliott, 1985), the current study did not support a relationship between intervention acceptability and treatment integrity. Also, the analyses did not support a relationship between treatment integrity and the consultee’s perceived problem severity (Gresham, 1989), preference for a particular type of service delivery (Waguespack & Moore, 1993), or causal

Several analyses were conducted to investigate perhaps the most highly advocated consultation dictum: that consultant-consultee interactions be collaborative (cf. Gutkin & Curtis, 1990). Results of individual t-tests involving consultant verbal interaction during consultation meetings indicated that consultees in the expert condition implemented the immediate consequence component of the intervention more often than consultees in the collaborative condition. Further analyses indicated that the correlations between collaboration and integrity measures were negative, although nonsignificant. However, results suggest that integrity may be mediated by a possible interaction which may have existed between a consultee's preference for service delivery and the consultant's verbal style. Finally, the analyses indicated that the degree of collaboration had a negative relationship with most outcome measures (i.e., observed and recorded student behavior and consultee satisfaction ratings), although these relationships were not significant.

These findings are contrary to Wenger's (1979) study which indicated consultee preference for a collaborative approach and no differences between the collaborative and expert approaches in intervention implementation. On the
other hand, the results appear to be consistent with findings in the verbal interaction literature for support of a directive or expert approach (Erchul, 1987; Witt et al., 1991). Because of the inconsistencies in the literature thus far, the present findings offer no conclusive pattern of results pointing toward the superiority of either the expert or collaborative model. However, the results do provide evidence that an expert model in consultation may be as effective as a collaborative approach.

Consistent with research assumptions (Elliott, 1988), results indicated a strong relationship between a consultee’s observed use of intervention permanent products and their ratings of satisfaction with the consultation process. In addition, observed use of the permanent products was significantly related to the level of positive behavior change in the target behavior, as measured by teacher recordings. The analyses, however, did not support a correspondence between different measures of treatment outcomes. It appeared that a particular case may be evaluated differently depending on the outcome variable employed: consultee ratings of severity, consultee records of behavior, or direct classroom observations. Although the poor correspondence between subjective ratings and behavioral observations is well documented (Witt, Elliott, Kramer, & Gresham, 1994),
the disagreement between the two former methods, each of which rely on consultee report, is somewhat surprising. The low level of agreement between the outcome measures supports Gresham and Noell's (1993) call for consultation studies to be evaluated using a multi-method approach.

Limitations and Future Directions

Several aspects of the study limit the generalizability of the findings. First, the number of cases was limited to 32 dyads within only five elementary schools in Louisiana. In fact, 14 of the cases were from a single school. Therefore, the relationships identified and the observed integrity levels may not be representative of consultation cases outside of these schools. The sample size also substantially restricted the type of analyses. For example, possible interactions among important variables could not adequately be investigated. The analyses were primarily limited to correlations, which do not imply causality or eliminate the possibility of covariates.

A second limitation is that consultants were graduate students with no official role in the schools. It is possible that the sample of consultees may have been skewed in some manner (e.g., volunteering to "help" research project). Therefore, the role and the credibility of the consultant may have reduced the consultee's motivation to perform.
A third limitation is related to attrition and incomplete cases. Several of the relationships among consultation variables investigated in this study may be obscured by incomplete data collection. For example, many cases contained incomplete data because consultees did not return rating scales or did not monitor student behavior. The current findings must be viewed in this context. Because of the low sample size and the missing data from cases, caution should be taken when interpreting the results.

Several researchers have suggested methodological problems in current consultation studies (e.g., Gutkin & Curtis, 1993; Gresham & Noell, 1993). A major goal of this study was to extend the school-based consultation literature by incorporating the following components: (a) operational definitions and measurement of a consultation model, (b) measurement of treatment integrity, and (c) direct observation of student and consultee behavior. The greatest contribution of this study is not that it yields definitive answers about treatment integrity and collaborative consultation issues, but rather that it provides directions for future investigations in these areas.

Many of the findings contradict theoretical assumptions, as well as empirical studies investigating consultation processes. However, the primary setting in
which previous studies have been conducted are analogue problem situations (Witt & Elliott, 1985). Further, most of the applied consultation studies utilize teacher self-report methods for measuring integrity (Dunson et al., 1994; Flugum & Reschly, 1994; Gresham, 1989). The current findings failed to support the predictive value of acceptability ratings or a correspondence between self-report ratings and observed integrity. An important methodological direction for consultation research would be to further operationalize consultation variables (e.g., collaboration, intervention complexity) and treatment integrity.

A thorough literature review revealed no established measures of collaboration (Witt, 1990b), intervention complexity, and observed treatment integrity (Gresham, 1989). The two methods for assessing collaboration (interview coding and consultee ratings) were developed specifically for this study and may not have adequately quantified the nature of consultation sessions. For example, certain decisions made within the interviews (e.g., appointment times) may be less critical to "collaboration" than others (e.g., selection of reinforcers). Likewise, interventions developed during the PAI should be evaluated rigorously, both in terms of complexity and allocated time, and should feature observable consequences.
The attempts to measure the immediate responses resulted in overall low levels of integrity with little variability. This restriction in range may severely limit the magnitude of potential relationships between integrity and other variables. Future studies might address factors that would increase the sensitivity of integrity measures. One reason for the poor integrity of consequences may be that the identified target behavior was misunderstood by the consultant or the consultee. For example, there may be dimensions (e.g., content, loudness) of inappropriate talking that were not defined in the interview. A possible method for reducing disagreement is to establish "interobserver" agreement between the consultant and consultee through one or two observations, wherein the consultee would signal the consultant when the "problem" behavior occurs. Once agreement is established, the level of integrity may be more accurately assessed.

A second direction is to approach integrity as a "skills deficit." Although the consultants in this study utilized the most well-researched consultation model available (Martens, 1993), Bergan's behavioral consultation model may assume a certain skill level on the part of the consultee. One of the possible reasons for low integrity is that consultees engaging in behavioral consultation are not knowledgeable of behavioral principles. Therefore, these consultees may concentrate
more on completing forms or displaying permanent products, without realizing the importance of altering antecedents or consequences.

Proper "teaching" of treatment integrity might be investigated through the consultant modeling the appropriate response in natural situations. By role-playing and modeling, the skill introduced in consultation sessions may be more likely to generalize to natural situations (Stokes & Baer, 1977). Also, some form of performance feedback could be given to the consultee after direct observations by the consultant. Frequent evaluation of integrity levels might provide an opportunity to reinforce the consultee's efforts and problem-solve barriers. Once adequate levels are reached, the feedback can take the form of consultee self-evaluation.

Finally, integrity may be approached from the perspective of a "motivation" or "performance" deficit: there may also be variables that affect a consultee's motivation to intervene on a behavior problem. A consultee may resist a new behavior management plan, for example, because of a desire to see the child's behavior problem persist, so that placement in another classroom or referral to the school counselor is justified. Alternatively, some consultees never really wanted a "new" solution to handling the behavior problem, but were
coerced by the principal to engage in consultation. These types of integrity problems might be handled in a different manner, such as requiring sufficient levels of integrity before critical educational placement decisions are made (Gresham, 1989). In sum, what may be needed is to conduct an assessment of a teacher's motivation to intervene prior to consultation.
REFERENCES

Primary Sources


**Secondary Sources**


Appendix A

Teacher Consent Form
TEACHER CONSENT FOR RESEARCH PARTICIPATION

PURPOSE: Thank you for cooperating in this important project on classroom interventions. Teachers who participate in this project will be providing valuable information about the instructional environment in the classroom as well as the processes and outcomes of interventions addressed to meet the needs of children who are experiencing behavioral difficulties in the classroom. This information is important for future training and development of services to better meet the needs of children in our schools. In addition, we hope to provide you with some assistance for a child in your class.

PROCEDURE: As a participant in this project, you will also be asked to complete questionnaires at various times throughout the project. These questionnaires are designed to obtain basic demographic information from you, as well as about the child you have requested consultation services. You will also be asked to participate in two interviews (which will be audio-taped). During these interviews we will discuss the child’s problem behavior, previous and current management strategies, and develop an intervention to be used in the classroom. In addition, you will be asked to allow classroom observations for the purpose of obtaining information pertaining to the classroom ecology. In order to maintain individual confidentiality, the information will be coded and the identity of individuals participating will remain confidential throughout the study. In the event you decide to refer the student, the Behavior Intervention Team will provide the School Building Level/504 Committee with intervention data. Other information will be provided upon request.

TEACHER’S RIGHTS: Your agreement to participate in this project is voluntary. You have the right to withdrawal from this project at any time. All information gathered as part of this project will be assigned a number and your identity and the child’s identity will remain strictly confidential. The researcher and other members of the team will be available throughout the study to answer any questions concerning the procedures and to ensure they are fully understood. Following completion of the study, the researcher will be available for discussion and will provide any requested details regarding study procedures.

I HAVE READ AND UNDERSTAND THE PURPOSE OF THE PROJECT, THE PROCEDURES INVOLVED, AND MY RIGHTS AS A PARTICIPANT. I AGREE TO PARTICIPATE IN THIS PROJECT.

____________________________________  ________________________
Signature                                Date

Case Number: _________
Appendix B

Teacher Background Information Form
Behavior Intervention Team
Louisiana State University ♦ School Psychology Program

TEACHER BACKGROUND INFORMATION FORM

Directions: Please provide the following information about yourself. Your responses will be coded and used to summarize participant characteristics. This information, as well as other data you provide during the research project, will be treated as confidential.

Case Number: _____

Sex: Male _____ Female _____

Highest degree earned: ____________________________________________

Type of teacher certification: _______________________________________

Number of years employed as a teacher: ______________________________

Grade levels taught: _______________________________________________

Did you refer any children with behavior problems for a special education or Section 504 evaluation last year? Yes No

If yes, how satisfied were you with the outcomes resulting from the referral process in terms of improvements in child(ren)'s behavior?

<table>
<thead>
<tr>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not Satisfied At All</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tbody>
</table>
Appendix C

Manual for Consultant Verbal Interaction Style
Manual for Consultant Verbal Interaction Style

Coding Directions: Using Problem Identification Interview (PII) and Problem Analysis Interview Checklists, code verbal interactions. For each specified objective, circle number if objective was accomplished by consultant. For objectives in bold print, check "Yes" if the consultant initiated a prompt for teacher input (Column A) or "No" if the consultant did not initiate a prompt for teacher input (Column B). Additionally, for either condition, code whether the teacher provided input by circling under Column C. Examples for each objective, as well as "support" statements are provided below (remember, these are only examples).

CT Prompt = consultant initiated a prompt for teacher input
CT No Prompt = consultant did not initiate a prompt for teacher input
CT = consultant objective

Problem Identification Interview

Objective 1: Purpose of Meeting

Prompt: I got your request for consultation. There are some things that I'd like to focus on today, but I'd like to find out now what you'd like to discuss during this first meeting. Sounds good. Some things that I'd like to get more information on are the specific behaviors the student is doing and some possible ways we can monitor those behaviors in the next week. Then, our second meeting will focus on the two of us brainstorming to come up with an intervention to try to remediate the problem.

No Prompt: I got your request for consultation. The purpose of this meeting is to discuss the specific behaviors the student is doing and some possible ways to monitor those behaviors in the next week. Then, during our second meeting, I will suggest an intervention for you to try in your classroom.

Objective 2: Target Behaviors Specified

CT: You mentioned that the child is "hyper." What kinds of things is he doing that makes you say this? (** Make sure behaviors are observable; i.e., they can be seen by an observer, e.g., talking, out of seat, hitting, not engaged in work, etc.)

Objective 3: One Target Behavior Identified

Prompt: You've mentioned a lot of disruptive behaviors that the child is displaying during seatwork. If you had to pick one, which one do you think is the most important for us to focus on?

No Prompt: You've mentioned a lot of disruptive behaviors that the child is displaying during seatwork. I think the most important behavior to focus on is _______ (e.g., out-of-seat).

Objective 4: Skills vs Performance Deficit

Prompt: Do you think the child knows how to sit in his seat (he has the skills) or is it that he just doesn't want to sit in his seat (a performance deficit)?
No Prompt: I'll bet that there are situations when the child is able to remain seated. This sounds like a performance deficit rather than a skills deficit.

Objective 5: Incidence of Target Behavior (requirement = at least 1)

CT: Approximately how many times do you think the child is out of his seat per class period? (frequency)  When the child is out of his seat, how long does it usually last? (duration)

Objective 6: Conditions Associated with Target Behavior (requirement = at least 1)

Antecedent Conditions
CT: What is generally going on right before the child gets out of his seat? What usually occurs just before the child gets out of his seat? (e.g., a command)

Consequent Conditions
CT: What usually happens after the child is out of his seat? (e.g., peer attention, temporary escape)

Sequential Conditions
CT: When during the day does the child's out of seat behavior most often occur? Does it occur more during one subject than others? Does it occur more often during lecture vs. independent seatwork?

Objective 7: Discipline Strategy

CT: What specifically do you do when the child gets out of his seat without permission? (must be observable) Is it ever okay for the child to be out of his seat?

Objective 8: Previous Interventions

CT: Have you ever tried using anything different with this child to get him to stay in his seat?

Objective 9: Baseline Collection Procedures

** This objective is met (and number is circled) if any of the following are met.

10) Rationale for Baseline

CT: Before we begin any intervention, it would be good to get an idea of how much the child is out of his seat now. This is a baseline of his behavior so we'll have something to evaluate the success of our intervention plan.

11) Behaviors Recorded & Defined

Prompt: How should we define the child's "out-of-seat" behavior? (*write on BRF)

No Prompt: We'll define out of seat behavior as .... (*write on BRF)
12) **Intervals for Recording**

**Prompt:** Do you know of a good way to keep track of the child's out of seat behavior? ... Would you like to keep track of this behavior -- all day or just during one class period? ... How would you like to divide the intervals for recording? (5 minute, 10 minute intervals)

**No Prompt:** I'd like you to keep track of the child's out of seat behavior for the next five days in this way...(during math independent seatwork broken into 5 minute intervals).

14) **Date to Begin Recording**

**Prompt:** When do you think you could start this baseline recording?

**No Prompt:** I'd like you to start baseline recording tomorrow.

Objective 14: **Observation Arranged**

**Prompt:** When would be a good day and time for me to come observe in the classroom?

**No Prompt:** I'd like to come observe in the classroom next Monday during Reading class...

Objective 15: **Next Meeting Scheduled**

**Prompt:** Would you like to schedule a meeting next week to look at our data and develop an intervention? ... What time is good for you?

**No Prompt:** I'd like to meet again next week at this same time to look at our data and talk about an intervention.

**Problem Analysis Interview**

Objective 1: **Purpose of Meeting**

**Prompt:** This is our second meeting and we've had a chance to collect some baseline information. What would you like to focus on today? Sounds good. And I thought we'd review the baseline and observation data and then together we'll develop an intervention to try to reduce Johnny's out of seat behavior. How does that sound?

**No Prompt:** This is our second meeting. The first thing we'll do is review the baseline and observation data. Then I'll explain the intervention that I've (the LSU Behavior Intervention Team has) developed to target Johnny's out of seat behavior. Do you have any questions?

Objective 2: **Adequacy of Baseline Data**

**Prompt:** Let's take a look at the baseline data... Let's figure out how many intervals Johnny was out of his seat without your permission compared to the total number of intervals... Do you think that this data gives us an accurate picture of Johnny's out of seat behavior?...
No Prompt: Could you show me the baseline data you collected on Johnny's out-of-seat behavior?... I'll calculate how many intervals per day he was out of his seat without your permission compared to the total number of intervals... Based on what you've reported, this seems to be an accurate picture of Johnny's out-of-seat behavior.

Objective 3: Observational Data Discussed

CT: Let's talk about the observation I did in your classroom. What I did was observe Johnny's behavior, as well as other students. This gives us a way to compare his behavior to the class average. During the observation, I observed that Johnny was only on-task approximately 55% of the time while the other students were on-task approximately 80% of the time. I also observed that he was out of his seat 25% of the time, while others were only out of their seats an average 2% of the time....

Objective 4: Discrepancy between Existing/Desired Performance

Prompt: We've just established that on a daily average, Johnny was out of his seat an average of 5 of the 6 intervals. Do you feel that there is a large enough discrepancy between Johnny and his classmates to warrant some special intervention?

No Prompt: Looking at this comparison between Johnny and his classmates, I feel that some further intervention is probably justified.

Objective 5: Presence of Conditions Associated with Baseline (requirement = at least 1)

Antecedent Consequences Sequential

Prompt: Looking at what usually happens before and after Johnny gets out of his seat, what kinds of patterns have we observed?

No Prompt: According to the baseline and observational data, there is a pattern in Johnny's out-of-seat behavior in that he appears to be getting teacher attention a high percentage of the time he is not in his seat. Because of this, the intervention will focus on increasing teacher behavior contingent on appropriate behavior.

Objective 6: Development of Intervention Plan

Criteria: Met if any type of intervention is developed in any manner

7) Rationale for intervention

CT: The intervention we develop should probably focus on decreasing Johnny's out-of-seat behavior, while increasing more appropriate behaviors like increasing work completion.

8) Group vs. Individual Intervention

Prompt: We can look at two types of interventions for Johnny. One is a group intervention, in which the whole class is involved. Or an individual intervention, in which only Johnny is involved. Which one do you think would be best for Johnny's situation.
No Prompt: We can look at two types of interventions for Johnny. One is a group intervention, in which the whole class is involved. Or an individual intervention, in which only Johnny is involved. Because you mentioned earlier that Johnny is influenced by his peers, the most effective intervention would be one that involves the whole class. (Because group interventions are usually more complex, we'll probably want to try an individual one)

9) Intervention ideas/choice given

Prompt: Do you have any intervention in mind that you'd like to try?...Here are several interventions which teachers seem to like. We could try the Dot To Dot, the Conduct Countdown, or the Smiley Face Chart...

No Prompt: There seems to be a couple of options we have for interventions. We could try the Dot To Dot, the Conduct Countdown, or the Smiley Face Chart. Given this type of behavior, I think our best choice is probably the Dot To Dot intervention.

10) Intervention goals

Prompt: Let's talk about intervention goals for Johnny. Keeping in mind Johnny's out-of-seat behavior last week. How many intervals would you expect Johnny to be in his seat for the day?

No Prompt: I'd like to talk about the intervention goals for Johnny. Since he was out of his seat last week an average of 5 of the 6 intervals. I think that the daily goal should be out of his seat only 3 of the 6 intervals.

11) Response cost/Intervention steps explained

CT: It might be useful for you to provide Johnny with immediate feedback every time he gets out of his seat without your permission. This intervention is designed to respond to Johnny's inappropriate behavior. (Consultant will explain steps of intervention)

12) Long term rewards

Prompt: What type of reward would you be able to provide Johnny at the end of the day (or week) if he meets his goals?

No Prompt: As part of the intervention, it would be good if Johnny could earn a reward for achieving his goals. Free time is a good reward to use with this age and it doesn't take away from teacher time.

13) Teacher Attention

Prompt: It might be useful to provide Johnny with attention for appropriate behavior. What's something you could do or say about once every five minutes that would let Johnny know he's behaving appropriately?...

No Prompt: Johnny is the type of child who needs a lot of attention for appropriate behavior. I'd like you to provide Johnny with some type of verbal reinforcement (I'd like you to say "Johnny, I like the way you are working") about once every five minutes when you see Johnny behaving appropriately.
14) **Time for intervention to begin**

**Prompt:** *When do you think would be a good time to begin this intervention?*

**No Prompt:** *Let's get started as soon as possible. Can you begin this intervention tomorrow?*

**Objective 15: Observation day and time arranged**

**Prompt:** *When would be a good day and time for me to come observe again in your classroom?*

**No Prompt:** *I'd like to come observe again in the classroom next Monday during Reading class.*

"Support" Statements for PIL & PAI

**Examples:**

*Sounds like you have your hands full with Johnny.*
*You have a lot of great things going on in your classroom.*
*It sounds like a tough situation.*
*I bet that's frustrating.*
*It sounds like Johnny is lucky to have a teacher like you.*
Appendix D

Child Behavior Scale
Behavior Intervention Team
Louisiana State University ♦ School Psychology Program

CHILD PROBLEM SCALE
(George, 1994)

Case Number: ___________ Date: ___________

Directions: The purpose of this questionnaire is to obtain information about your perceptions concerning the child's behavior problems. Please circle the number which best describes your agreement or disagreement with each of the following statements.

1. Even with assistance from a consultant, this child's problem behavior cannot be controlled.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

2. No matter what changes I make, this child will continue to exhibit these problem behaviors.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

3. I can influence this child's behavior in the classroom.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

4. This child can control his behavior.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

5. This child's parents cause his problem behavior.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

6. This child is responsible for his misbehavior.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

7. Others cause this child's misbehavior.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

8. This child's problem behavior is caused by something he/she can control.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

9. This child's problems are too severe/complicated for me to handle.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5

10. Other people are responsible for this child's misbehavior.

   never true  1  2  3  4  5
   infrequently true  1  2  3  4  5
   sometimes true  1  2  3  4  5
   often true  1  2  3  4  5
   always true  1  2  3  4  5
11. Time will solve this behavior problem.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
</tr>
</thead>
</table>

12. Factors in the environment cause this child's behavior problem.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
</tr>
</thead>
</table>

13. I could manage this child's behavior if someone could tell me what might work.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
</tr>
</thead>
</table>

14. This child's problem behaviors will go away with time.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
</tr>
</thead>
</table>

15. This child can stop this misbehavior if he wants to.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
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</thead>
</table>

16. The cause of this child's misbehavior is external to the child.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
</tr>
</thead>
</table>

17. I can manage this child's behavior problem.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
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</table>

18. The cause of this child's misbehavior will change in the future.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
</tr>
</thead>
</table>

19. This child misbehaves intentionally.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
</tr>
</thead>
</table>

20. This child's misbehavior is influenced by others.  

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently true</th>
<th>sometimes true</th>
<th>often true</th>
<th>always true</th>
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</table>
Appendix E

Preference for Service Delivery
PREFERENCE FOR SERVICE DELIVERY

Case Number: ___________  Date: ___________

The following are definitions of three types of services that may be chosen for a child who is exhibiting behavior problems in the classroom. Please read each definition carefully and place an X in the blank next to the service that you feel would lead to the most favorable outcome for the referred case.

_____ Referral for Special Education or 504 Evaluation

Referral is a request for an evaluation by the pupil appraisal team (i.e., school psychologist, social worker, assessment teacher) or Section 504 Committee to test a student who is exhibiting significant behavior problems and to recommend appropriate treatment which may or may not include placement in a special education classroom.

_____ Consultation

Consultation is a problem-solving approach between the teacher and another professional (e.g., school psychologist, counselor, another teacher, behavioral consultant) where intervention strategies are developed for the teacher to use in the classroom.

_____ Counseling

Counseling is a direct-service provided to the student in which a third-party professional (e.g., school counselor, social worker) conducts routine sessions with the student outside the classroom.
Appendix F

Student Progress Rating Scale
STUDENT PROGRESS RATING SCALE

Case Number: __________  Date: __________

Directions: The purpose of this questionnaire is to obtain your view of the student's behavior at this time. Please circle the number which best describes your agreement or disagreement with each of the following statements.

Compared to other children in the class, the problem of ________________:

1) requires too much teacher attention. Strongly Disagree 1 2 3 4 5 Strongly Agree
2) disturbs the other children. Strongly Disagree 1 2 3 4 5 Strongly Agree
3) interferes with completion of school work. Strongly Disagree 1 2 3 4 5 Strongly Agree
4) requires immediate intervention. Strongly Disagree 1 2 3 4 5 Strongly Agree

Compared to other children in the class, the problem of ________________:

1) requires too much teacher attention. Strongly Disagree 1 2 3 4 5 Strongly Agree
2) disturbs the other children. Strongly Disagree 1 2 3 4 5 Strongly Agree
3) interferes with completion of school work. Strongly Disagree 1 2 3 4 5 Strongly Agree
4) requires immediate intervention. Strongly Disagree 1 2 3 4 5 Strongly Agree
Appendix G

Problem Identification Interview Checklist
## Problem Identification Interview (Pll) Checklist

<table>
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<tr>
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<th>Coder:</th>
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<tbody>
<tr>
<td>Meeting Date:</td>
<td>Coding Date:</td>
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</tbody>
</table>

### Objectives

**Circle Number if Observed:**

<table>
<thead>
<tr>
<th>Prompt for Teacher Input</th>
<th>Col A</th>
<th>Col B</th>
<th>Col C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purpose of meeting defined</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>2. Target behavior(s) specified in observable terms</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>*3. One target behavior identified for intervention</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>4. Skills versus performance deficit</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>*5 Level of incidence of target behavior</td>
<td>____ frequency ____ intensity ____ duration (requirement = at least 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*6 Conditions associated with target behavior</td>
<td>____ antecedent ____ consequent ____ sequential (requirement = at least 1)</td>
<td></td>
<td></td>
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<tr>
<td>7. Discipline strategy used for target behavior</td>
<td></td>
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<tr>
<td>8. Previous classroom interventions discussed</td>
<td></td>
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<tr>
<td>*9. Baseline collection procedures developed</td>
<td></td>
<td></td>
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<tr>
<td>a) rationale for baseline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) behavior(s) recorded &amp; defined</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>c) intervals for recording</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>d) date to begin recording</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>10. Observation day and time arranged</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td>*11. Next meeting scheduled</td>
<td>____ Yes ____ No</td>
<td>Teacher input</td>
<td></td>
</tr>
<tr>
<td># of &quot;Support&quot; statements by Consultant</td>
<td>____ 5 or &gt; ____ 0-2 <em>(Tally: _____)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Scoring

1) # of Objectives Circled ____ divided by 15 = ____ %

2) # of * Objectives Circled ____ divided by 5 = ____ %

3) Collaboration Score: Total Column A + Total Column C = _____
Appendix H

Problem Analysis Interview Checklist
Problem Analysis Interview (PAI) Checklist

Case Number: _______________  Coder: _______________
Meeting Date: _______________  Coding Date: _____________

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Prompt for Teacher Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle Number if Observed:</td>
<td>Col A</td>
</tr>
<tr>
<td>1. Purpose of meeting defined</td>
<td></td>
</tr>
<tr>
<td>2. Baseline data discussed</td>
<td></td>
</tr>
<tr>
<td>3. Observational data discussed</td>
<td></td>
</tr>
<tr>
<td>4. Discrepancy b/t existing &amp; desired student performance determined</td>
<td></td>
</tr>
<tr>
<td>5. Presence of conditions assoc. w/ baseline</td>
<td></td>
</tr>
<tr>
<td>(requirement = at least 1)</td>
<td></td>
</tr>
<tr>
<td>___ antecedent</td>
<td></td>
</tr>
<tr>
<td>___ consequent</td>
<td></td>
</tr>
<tr>
<td>___ sequential</td>
<td></td>
</tr>
<tr>
<td>6. Intervention plan developed</td>
<td></td>
</tr>
<tr>
<td>a) rationale for intervention</td>
<td></td>
</tr>
<tr>
<td>b) Group vs individual intervention</td>
<td></td>
</tr>
<tr>
<td>c) Intervention ideas/choice given</td>
<td></td>
</tr>
<tr>
<td>d) Intervention goals</td>
<td></td>
</tr>
<tr>
<td>e) Response cost/inter. steps explained</td>
<td></td>
</tr>
<tr>
<td>f) Long term rewards</td>
<td></td>
</tr>
<tr>
<td>g) Tchr attention (5 min. verbal)</td>
<td></td>
</tr>
<tr>
<td>h) Time for intervention to begin</td>
<td></td>
</tr>
<tr>
<td>7. Observation day and time arranged</td>
<td></td>
</tr>
<tr>
<td># of “Support” statements by Consultant</td>
<td></td>
</tr>
</tbody>
</table>

| COLUMN TOTAL                  |      |      |       |

Scoring

1) # of Objectives Circled _____ divided by 15 = _____%

2) # of * Objectives Circled _ ____ divided by 5 = _____%

3) Collaboration Score Total Column A + Total Column C = ______
Appendix I

Verbal Interaction in Consultation - Teacher Rating
VERBAL INTERACTION IN CONSULTATION-TEACHER RATING

Case Number: ___________ Date: ___________

Directions: Please respond to the following items by marking the number that best describes your interactions with the consultant during the most recent interview. Please answer all items. Your responses are confidential and will not be seen by your consultant.

1. The consultant tended to concentrate on his/her own choice of topics, rather than my choice of topics.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

2. The consultant's primary focus was to discuss data or facts, rather than discuss my feelings and opinions.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

3. The consultant was interested in my input.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

4. The consultant made most of the decisions during the meeting.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

5. The consultant allowed me to establish the interview process.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

6. The consultant seemed to understand the severity of the child's problem behavior.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

7. The consultant did not allow me to choose among different options to deal with this behavior.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

8. The consultant was polite and well-mannered.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

9. The consultant expressed empathy towards me.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

10. The consultant wanted to identify my strengths.
    Strongly Disagree 1 2 3 4 5 Strongly Agree
Appendix J

Intervention Rating Profile-15
The purpose of this questionnaire is to obtain information about your reaction to the classroom intervention developed during the meeting with your BIT member. Please circle the number which best describes your agreement or disagreement with each of the following statements about the intervention developed for the referred child. Please answer all questions even if you are unsure of your response.

1. This is an acceptable intervention for the child's problem behavior.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

2. Most teachers would find this intervention appropriate for other behavior problems as well as the one identified.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

3. This intervention should prove effective in changing the child's problem behavior.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

4. I would suggest the use of this intervention to other teachers.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

5. The child's behavior problem is severe enough to warrant the use of this intervention.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

6. Most teachers would find this intervention suitable for the behavior problem identified.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

7. I would be willing to use this intervention in the classroom setting.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

8. This intervention would not result in negative side-effects for the child.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

9. This intervention would be appropriate for a variety of children.
   Strongly Disagree 1 2 3 4 5 6 Strongly Agree

10. This intervention is consistent with those I have used in classroom settings.
    Strongly Disagree 1 2 3 4 5 6 Strongly Agree

11. The intervention is a fair way to handle the child's problem behavior.
    Strongly Disagree 1 2 3 4 5 6 Strongly Agree

12. This intervention is reasonable for the behavior problem identified.
    Strongly Disagree 1 2 3 4 5 6 Strongly Agree

13. I like the procedures used in this intervention.
    Strongly Disagree 1 2 3 4 5 6 Strongly Agree

14. This intervention is a good way to handle this child's behavior problem.
    Strongly Disagree 1 2 3 4 5 6 Strongly Agree

15. Overall, this intervention would be beneficial for the child.
    Strongly Disagree 1 2 3 4 5 6 Strongly Agree
Appendix K

Intervention Protocol List
BIT INTERVENTION PROTOCOLS

Punch Out (individual or group)
1) Create Punch Out chart or index card by drawing 10-15 circles approx. size of a hole-punch, and outline the figure in the drawing.
2) Post Punch Out chart in a visible place or on child's desk.
3) Target one enjoyable activity or privilege.
4) Every time the target behavior occurs, one of the holes must be punched.
   (May also be adapted as positive reinforcement targeting appropriate behavior).
5) If the child has any holes left at the end of the day (or week), he is able to have access to the activity or privilege. Ex: one retained circle = 1 min

Response Cost Lottery (individual or group)
1) Create lottery slips.
2) Put slips on child's desk each morning.
3) Target one enjoyable activity or privilege.
4) Each time the target behavior occurs, one of the slips is removed.
5) Any slips left at end of day gains access to preferred activity (one slip = 1 min).

Smiley Face Chart (individual or group)
1) Create Smiley Face Chart.
2) Post Smiley Face Chart in a visible place or on child's desk.
3) Target one enjoyable activity or privilege.
4) Each time the target behavior occurs, one of smiley faces is X-out.
   (May also be adapted as positive reinforcement targeting appropriate behavior).
5) At end of day, child colors in remaining smiley faces.
6) The child may exchange one colored smiley face for 1 min of preferred activity.

Conduct Countdown (individual or group)
1) Create Conduct Countdown Chart.
2) Post Conduct Countdown Chart in a visible place or on child's desk.
3) Target one activity or privilege, from highly appealing (for "A") to less appealing ("C").
4) Each time the target behavior occurs, the lowest horizontal slip is cut off.
5) At end of day, child's conduct grade corresponds to the grade left.
6) The child may participate in a preferred activity, based on conduct grade.

Weekly Behavior Record (individual or group)
1) Create Weekly Behavior Record.
2) Post Weekly Behavior Record in a visible place or on child's desk.
3) Target one activity or privilege.
4) Each time the target behavior occurs, one bubble is crossed out.
   (May also be adapted as positive reinforcement targeting appropriate behavior).
5) At end of day (or week), the number of bubbles left are exchanged for preferred activity.
Appendix L
Complexity of Intervention Scale
COMPLEXITY OF INTERVENTION SCALE (CIS)

Case: __________ Rater: ____________
Date: __________

Did the intervention include?:

Yes No A system for monitoring child behavior
Yes No A permanent product
Yes No An immediate response when an inappropriate behavior occurs
Yes No A long-term reward
Yes No Positive reinforcement (e.g., praise) for appropriate behavior

Rater: Please rate the following statements assuming that the intervention is implemented as planned during the meeting.

1. Indicate how complex the intervention steps appear to be. Consider the number of target behaviors, the number of steps, the degree to which the steps are clearly described, and the degree to which the steps are related to the teacher's existing classroom management plan.

   Very Complex Very Simple
   1  2  3  4  5  6

2. Indicate how much preparation time will be involved in using this intervention. Consider the duration and frequency of special instructions to children. Also consider whether new permanent products must be made each day, once per week, not at all, etc., and teacher time required to prepare long-term rewards.

   Very Much Time Very Little Time
   1  2  3  4  5  6

3. Indicate how much time it would require to implement the intervention described in the meeting. Consider the duration of immediate consequences, how often the teacher will need to respond to inappropriate and/or appropriate behavior, the time involved when issuing long-term rewards, and the time involved with monitoring student progress.

   Very Much Time Very Little Time
   1  2  3  4  5  6

4. Indicate how difficult it would be to implement the intervention described in the meeting. Consider the frequency of the target behavior, the degree to which implementation will distract the teacher and students, and the amount of teaching time lost if steps are implemented as planned.

   Very Difficult Very Easy
   1  2  3  4  5  6
Appendix M

Behavior Observation System
**BEHAVIOR OBSERVATION SYSTEM (BOS)**

<table>
<thead>
<tr>
<th>Case #</th>
<th>School</th>
<th>Observer</th>
<th>BOS Observation #</th>
<th>Date</th>
<th>Day</th>
<th>Class Size</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**Start Time:**

**Class Activity:**

**Classroom Condition:**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>RC</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>TA</td>
<td>RC</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
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<td>TA</td>
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<td>RC</td>
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<td>TA</td>
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<td>TA</td>
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<td>ON</td>
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</tbody>
</table>

- **ON**: Whole interval engaged on task: Looking at teacher/speaker/work; Reciting; Writing or Reading appropriate material (TA = teacher attention)
- **TOSG**: Teacher directed self (with target child in group)
- **TSC**: Teacher self (partial interval) Ant Instance of Off Task: Any diversion from ON, except 11, 12
- **TOM**: Individual seatwork

**Observed Integrity of Classroom/Intervention Plan:**

1 = No Response
2 = Deviation from response
3 = Agreement with response

**Permanent Product Score:** 0 1 2

**Directions:** 10-second interval recording. At recorded prompt, observe target student. Record data at the end of interval. At "C" prompt, begin with 1st student in row 1, observe each student during subsequent comparison intervals (class average). Skip unobservable students. If classroom conditions change, put a slash mark and record new activity.
### Activities:

| TDUC | __________ | TDDG | __________ | I56W | __________ |

#### Target Student

- **Total On-Task**: __________ %  
- **Total Off-Task**: __________ %

#### Class Average

- **Total On-Task**: __________ %  
- **Total Off-Task**: __________ %

**Comments:**

Class behavior within expectations: __________
Appendix N

Baseline and Intervention Record Form
BASELINE AND INTERVENTION RECORD FORM

Case Number: _____________  Week: _____________

Using the observation matrix to record behaviors:
1. Divide daily observation periods into at least 5 intervals.
2. Label the intervals on the vertical axis.
3. Place a "1" in the interval box if the behavior occurs at least once (do not put any additional marks).
4. Place a "0" in the interval box if the behavior does not occur during the interval.

<table>
<thead>
<tr>
<th>TIME</th>
<th>DATE:</th>
<th>DATE:</th>
<th>DATE:</th>
<th>DATE:</th>
<th>DATE:</th>
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</tr>
</tbody>
</table>

TARGET BEHAVIOR:

LIST THE INTERVENTION STEPS:

1. __________________________________________________________________________
2. __________________________________________________________________________
3. __________________________________________________________________________
4. __________________________________________________________________________
5. __________________________________________________________________________
6. __________________________________________________________________________
7. __________________________________________________________________________
8. __________________________________________________________________________
Appendix O

Teacher Satisfaction Questionnaire
TEACHER SATISFACTION QUESTIONNAIRE

Case Number: ___________ Date: ___________

Directions: The purpose of this questionnaire is to obtain feedback concerning your overall satisfaction with the BIT process. Please read the following questions and answer each carefully by selecting the option which best represents your personal reaction.

1. This intervention was a good way to approach the child’s behavior problem.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

2. This intervention improved the child’s behavior to the point that it is not noticeably different from other classmate’s behavior.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

3. During the meetings, the consultant did not offer useful information.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

4. I am satisfied with the changes in the child’s behavior.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

5. I would be willing to consult with this BIT member in the future.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

6. The BIT process was not a valuable use of my time.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

7. This child’s behavior problem is too severe to be handled by interventions in the regular classroom.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

8. Overall, I am very satisfied with the BIT process.
   Strongly Disagree 1 2 3 4 5 Strongly Agree
Appendix P

Check-up Sheet
BIT CHECK-UP SHEET

Case Number: ___________ Date: _______

This is a confidential check-up on how things are going with this student since our last meeting. Please check the statement that best describes the student's current progress.

__________ The student is doing very well. I would not like to meet with you at this time.

__________ The student is doing okay but I'd like to meet with you and change the intervention.

__________ The student's behavior has worsened. I would like to schedule another consultation.

__________ The student's behavior is still a problem, but I would like to continue working on it myself.

__________ The student has been referred to the School Building Level Committee.

__________ The student has been referred to the Section 504 Committee.

__________ The student is doing well but I would like to meet and discuss another student in my classroom.
Appendix Q

Technical Report
Behavior Intervention Team  
Louisiana State University ♦ School Psychology Program  

TECHNICAL REPORT  
CASE #157  

Classroom: Mr. Jones, Grand Isle Elementary  
Target Behavior: Out-of-Seat  
Intervention: Conduct Countdown Grade  
Setting: Teacher directed; Independent seatwork  

General Procedures:  
1) Post the Conduct Countdown rule and chart in a visible place near student’s desk.  
2) Verbally warn student 1st time target behavior occurs.  
3) After 1 warning, mark out lowest grade each time target behavior occurs.  
   Give no other teacher attention.  
4) At end of day, if student has "C" or better allow access to preferred activity or reward.  

Measurement: Observation, Teacher Monitoring Chart, Teacher Rating  

Results:  

<table>
<thead>
<tr>
<th></th>
<th>Week 1: Baseline</th>
<th>Week 2: Intervention</th>
<th>Week 3: Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target Student</td>
<td>Class</td>
<td>Target Student</td>
</tr>
<tr>
<td>Observation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>out of seat</td>
<td>22%</td>
<td>2%</td>
<td>14%</td>
</tr>
<tr>
<td>on-task</td>
<td>37%</td>
<td>29%</td>
<td>19%</td>
</tr>
<tr>
<td>Teacher Monitoring</td>
<td>100%</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Teacher Ratings</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary: According to classroom observations, out-of-seat behavior decreased during the two weeks of intervention, while overall on-task behavior decreased during week two but increased during week three of intervention. Data collected by the teacher revealed a 50% decrease in the target behavior from baseline to intervention. Teacher ratings revealed relatively no change in out-of-seat behavior for this student. Based on observation and teacher monitoring data, it appears that this student made some positive gains during the BIT process.  

In summary, data indicate mixed results regarding improvement in this student’s behavior during the BIT process. Two reasons must be considered when evaluating the results of the BIT intervention: (a) the strength of the intervention for this particular behavior problem and (b) obstacles which might have occurred with the implementation of the intervention. For additional information on the BIT intervention, please feel free to contact your BIT member.
Appendix R

Consultee Debriefing
Debriefing Statement

Thank you for participating in the BIT project. The purpose of this consultation was to assess the effectiveness and acceptability of classroom interventions for children experiencing behavior problems. By participating, you have provided us with valuable information about the processes and outcomes of interventions. This information is important for future training and development of services to better meet the needs of children in our schools. Case data are immediately entered into a large data base which will allow us to assess the relationships between groups of teacher, child, and classroom variables. Once entered, your name and the child’s will not be associated with any of the collected information.

Thank you again for participating. Implementing interventions in the classroom involves a great amount of time and effort. If you have any questions pertaining to the purpose of the study or our findings, please contact your school’s BIT team. We will gladly share any information and are available for further assistance with the same child or others.

This project was partially funded by the Louisiana Department of Education, Office of Special Education Services and the Louisiana Children's Trust Fund.
Appendix S

BIT Case Flowchart
REQUEST FOR CONSULTATION

1) Schedule PII Meeting with Teacher and Give Teacher Pre-Packet

WEEK I

2) PII Meeting
   ♦ establish baseline procedures and give teacher BIRF
   ♦ give Student Progress Rating Scale

3) Conduct Baseline Observation(s) using the BOS
   ♦ target student and class behaviors
   ♦ baseline integrity

WEEK II

4) PAI Meeting
   ♦ develop intervention and give teacher two BIRF's
   ♦ give IRP-15 and VIC-TR in stamped, addressed envelope

5) Conduct Intervention Observation 1 using the BOS
   ♦ target student and class behaviors
   ♦ treatment integrity

WEEK III

6) Conduct Intervention Observation 2 using the BOS
   ♦ target student and class behaviors
   ♦ treatment integrity

7) Give Teacher Follow-up Packet

WEEK IV

8) Give Teacher Check-up Sheet

CASE COMPLETION

9) Conduct Final Follow-up Meeting with Teacher
   ♦ give Technical Report and Debriefing
VITA

Katherine Frances Wickstrom is originally from Lafayette, Louisiana. She received a Bachelor of Science degree in Psychology and Sociology from Louisiana State University in 1988. She entered the doctoral program in School Psychology at LSU in 1988 and received a Master of Arts degree in 1990.

Katherine's research interests include school-based behavioral consultation and treatment integrity. Her educational experiences include working as a project coordinator on a state grant, graduate and teaching assistant, mental health counselor in a primary school, and teaching an undergraduate educational psychology course. She is presently employed as a school psychologist for Papillion LaVista Public Schools in Omaha, Nebraska.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Katherine Frances Wickstrom
Major Field: Psychology

Title of Dissertation: A Study of the Relationship Among Teacher, Process, and Outcome Variables Within School-Based Consultation

Approved:

[Signatures]

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:
6/8/95