PROBLEM STATEMENTS REFERRED TO TEACHER ASSISTANCE TEAMS

by

Janet Marguerite Amsden, B.Ed.

The University of British Columbia, 1977

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

(Department of Educational Psychology and Special Education)

We accept this thesis as conforming

to the desired standard.

THE UNIVERSITY OF BRITISH COLUMBIA

June, 1990

(c) Janet Marguerite Amsden, 1990

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Special Education

The University of British Columbia

Vancouver, Canada

Date

Abstract

This study examined problems referred to Teacher Assistance Teams (TATs) during the 1988-89 school year in four Vancouver schools. Exploratory analyses were conducted to discover: (a) similarities or differences between problems referred to Teacher Assistance Teams and those referred to School-based teams (SBTs); and (b) similarities or differences between problem statements before and after the problem identification phase of the TAT process was carried out. Significant differences were found in the nature of problems referred to TATs and to SBTs. No significant differences were found in problem statements before and after problem identification was carried out.

Table of Contents

Chapter	One: Introduction1	
Chapter	Two: Review of the Literature	
Chapter	Three: Methodology	
Chapter	Four: Results	
Chapter	Five: Conclusions	
References81		
Appendix	A: Sample Referral to School-based Team85	
Appendix	B: Sample Referral to Teacher Assistance Team87	
Appendix	C: Sample Teacher Assistance Team Meeting Record.89	
Appendix	CD: Descriptions of Categories91	
Appendix	E: Illustration of Scoring98	
Appendix	F: Rules for Scoring100	
Appendix	G: Grouping of Categories102	
	CH: Percentage of Problems Retained From TAT1 to	
Appendix	: School-based Team Consultative Process107	

List of Tables and Figures

Tables

1.	Populations of TEAMS and Control Schools32
2.	Numbers of TAT Referrals and Meeting Records and SBT Referrals Within Schools
3.	Frequency of Weaknesses and Strengths Within SBT, TAT1, and TAT2 Groups42
4 .	High Frequency Weaknesses and Strengths in SBT, TAT1 and TAT2 Groups46
5.	Frequency of Behavioural, External, and Academic Factors in Descriptions of SBT, TAT1, and TAT2 Weaknesses48
6.	Frequency of Behavioural, External, and Academic Factors in Descriptions of SBT, TAT1, and TAT2 Strengths48
7.	Observed Frequencies of Student Weaknesses for each Group Using Pugach and Johnson's Categories52
8.	Frequency of Strengths and Weaknesses for Empirically Derived Category Clusterings for SBT, TAT1, and TAT260
9.	Summary of the Differences in the Content of Teachers' Descriptions of Students' Problems62
	Figures
1.	Mean Number of Strengths and Weaknesses for Each Group43

Acknowledgements

I am greatly indebted to three extraordinary men,
Steve Amsden, Randy Cranston, and Wolfgang Rothen. Without
their inspiration, support, encouragement, knowledge, and
patience, this study would never have been completed.

CHAPTER ONE

Introduction

The focus of this study, the Teacher Assistance

Team, is a type of prereferral intervention which has evolved in response to concern about the continuing increase and subjectivity of referrals of children with mild handicaps for special education services.

Algozzine and Ysseldyke (1983) examined the incidence of special education referrals and found, in the 1979-80 school year, that 9.5 percent of America's school population was receiving special education or related services and that that number was increasing by 3% per year. They described the numbers of children being referred for special class placement as "burgeoning" masses. Their study increased the disquiet in the field of special education which had been aroused by earlier research that examined the process for determining eligibility for special education services. In the previous year Algozzine, Christenson, and Ysseldyke (1982) surveyed a national sample of directors of special education and found that 92% of the students referred to special education were tested and 78% were found to be eligible for special class placement.

In another study, Algozzine and Ysseldyke (1981)
examined the decision making process through which
eligibility for special education services was determined.
They asked 224 school personnel to decide on the placement

of 16 students on the basis of their psychoeducational data (which was within normal limits). Half of the professionals recommended special class placement for these students. In a review of the comprehensive research effort into practices in making psychoeducational decisions about learning disabled students, Ysseldyke (1983) remarked that the decision making process is a "rubber stamp" process and that the most important decision made is to refer the student for psychoeducational evaluation. He also suggested that, not only is the referral to placement process virtually automatic, but that considerable misclassification is occurring. In short, students who teachers suspect may be handicapped are being too easily swept into special class placement.

Concerns about the appropriateness of teacher referrals have resulted from several studies in special education.

Ysseldyke, Thurlow, Graden, Wesson, Deno, & Algozzine (1983) observed that teachers refer mildly handicapped students (i.e., those who require more instructional effort than their normally achieving peers) for special education services in the expectation that these students will be placed in special education classes and that the regular class will become more manageable when they are removed. Ysseldyke et al. also indicated that teachers have idiosyncratic and chaotic referral methods and tend to refer children who "bother" them. Gerber and Semmel (1985)

explained that referrals to special education are an "attractive option" to teachers who desire to increase classroom efficiency. By reducing classroom variance through special class placement, teachers expect to maximize instructional resources and, thereby, to increase the classroom mean output.

The critical study of the special education referralto-placement sequence has coincided with a search for
alternatives to current practices. This search for
alternatives has been influenced by specific concerns
arising from two other areas of special education research:
efficacy of special class placement and curriculum-based
instruction.

The first concern is the value of special class placement for mildly handicapped students. Bicklen and Zollers (1986) examined efficacy studies from the 1939's to 1986 and concluded that mildly hancicapped students do not benefit from special education placement outside the regular class. Their review disclosed that, because of methodological factors (such as an inability to define a discrete learning disabled population and the lack of control groups) they could find no definitive studies to support the placement of learning disabled (LD) students in special classes. In addition, they discovered several "troublesome" features of the pullout nodel. These features ranged from loss of teacher accountability, to stigma and

alienation for LD students. As a result, Bicklen and Zollers recommended that successful learning for LD students depends on schools adapting to accommodate a wider range of individual differences in the mainstream. This information has nourished the search for interventions that result in the reduction of numbers of students referred for special education services.

A second concern brought out by special education research, centres on the existence of "curriculum casualties" (Gickling & Thompson, 1985). Curriculum casualties are students who are at risk, not because of any deficits in their cognitive or perceptual abilities, but because their level of achievement does not match the level of instruction in the classroom. "Their one basic fault or problem, if it can be called that, is that their readiness levels or learning rates do not synchronize precisely with the instructional entry skill requirements and rates of introduction and review making up grade level programs" (Gickling & Thompson, 1986, p. 209). Gickling and Thompson reported that, once the mismatch between the students' level of readiness and the level of instruction was eliminated, low achieving children and children with attention deficit disorder demonstrated a significant increase in on-task behaviour (which correlates directly with increased achievement). Therefore, it seems reasonable to expect

that, before referring a student to special education, teachers should first ascertain whether the student is a curriculum casualty - a victim of inappropriate instruction. Galagan (1985), however, suggested another basis for the mismatch with instruction.

Evidence abounds that regular education teachers initiate referrals without documenting that alternative instructional strategies have been attempted and evaluated. Moreover, there is often no evidence of the student's present level of intellectual functioning, language dominance, school attendance, or systematic observational data on the student's performance. These omissions emanate from almost uniform teacher attitudes that academic and behavioral difficulties are not related to inadequate instruction but rather home and family problems and internal student deficits (1985, p.290).

The concerns about the value of special class placement and the failure of referring teachers to document modification in the instructional environment, have stimulated educators to seek an alternative special education service delivery model for mildly handicapped students. The search has been for a model that not only avoids pullout placements, but also provides information on the students' interaction with the curriculum and the environment in the classroom. To meet these criteria,

educators have developed pre-referral intervention models. Most notably, these include the Prereferral Intervention Process (Graden, Casey, & Christenson, 1985) and Teacher Assistance Teams (Chalfant, Pysh, & Moultrie, 1979). The procedures outlined in these models create a preliminary step in the special education referral-to-placement sequence in which the referring teacher collaborates with a consultant or a group of peers to examine the student in the learning setting and, if appropriate, to modify the environment or the curriculum and collect data on the modification. These procedures focus on identifying deficits in the instruction and setting rather than in the child. If deficiencies can be found and corrected, the child remains in the regular classroom and the teacher's skills are enhanced. As a consequence, the need for special education services is reduced.

The promise of prereferral practices to reduce the escalating need for special education services has led to their wide-spread acceptance in North America, despite a scarcity of empirical evidence to support their use. Carter and Sugai (1989) surveyed 51 state-level special education administrators in 1987 and found that prereferral intervention procedures were required in 23 states and recommended in 11 others. This interest in prereferral procedures is shared in Canada. School systems in at least four provinces, including British Columbia, are using the procedures (Chalfant & Pysh, 1981). The widespread adoption

of these procedures suggests that news of their positive effect is spreading. However, published evaluations of prereferral success stress the cost-effectiveness of the procedures (i.e., reductions in referrals for special education services). Studies detailing the effects of the procedures on the teachers and students involved (rather than on the systems) are rare. Chalfant and Pysh (1981) reported that the problems that teachers referred to TATs encompassed both learning and behavioural concerns (with behavioural concerns dominating), but they do not discuss how these concerns were addressed. Issues such as teacher satisfaction with TATs have been surveyed with favourable results, but success is generally equated with reduction in referrals for special education services (Chalfant, Pysch & Moultrie, 1979; Chalfant & Pysh, 1981; and Graden, Casey, & Christenson, 1985).

Evaluation of prereferral intervention success became a focus in Vancouver in 1988. The Vancouver School Board piloted a prereferral procedure, the Teacher Assistance Team model, in four schools during the 1988-89 school year. The pilot, which has been called Project TEAMS (Teaming for Educational Alternatives Methods and Strategies) is the focus of this study. In the Teacher Assistance Team model used in Project TEAMS, classroom teachers referred learning or behaviour problems to a groups of three classroom teachers who helped them to clarify and solve possible problems.

This study examined the type of problems referred to the Teacher Assistance Teams to determine whether they were similar to problems referred to School-based Teams - the traditional avenue for special education referrals in Vancouver. It was reasoned that, since reduction of the numbers of students referred for special education services has been used as an indicator of prereferral intervention effectiveness, it would be useful to determine whether the types of problems referred by teachers to TATs were, in fact, similar to those referred to School-based Teams. This study also examined the TAT process to determine whether problem re-conceptualization had taken place as a result of the peer consultation.

CHAPTER TWO

Review of the Literature

Increasing numbers of mildly handicapped learners being referred for special class placement (Algozzine & Ysseldyke, 1983) have prompted educators to seek costeffective special education service delivery alternatives. Concerns about the appropriateness of referrals for special education services (Ysseldyke, 1983, Galagan, 1985) have directed this search to the earliest stage of the special education referral-to-placement sequence, the point where the classroom teacher acknowledges a need for help with a student having learning or behaviour problems. A class of service delivery options, known as prereferral interventions, has been generated to meet this demand.

Prereferral interventions provide an intermediary phase in the referral for special education services process and are carried out "collaboratively" with classroom teachers. The objectives of the interventions are: (a) to improve the ability of classroom teachers to accommodate the needs of children with learning and behaviour problems, and (b) to reduce unnecessary referrals for special education services (Carter & Sugai, 1989).

Prereferral intervention models have been developed in which the referring teacher meets with informal, school-based problem-solving teams such as Teacher Assistance Teams

(Chalfant, Pysh, & Moultrie, 1979); or in which the referring teacher meets with a special education teacher (the Prereferral Intervention System, Graden, Casey, & Christenson, 1985; and special education consultation models, e.g. Friend, 1984; Idol-Maestas, 1983; Paolucci-Whitcomb & Nevin, 1985). In all of these models the consultant(s) functions as a problem-solving helper. The problem-solving procedures used in these models include the following generic steps:

- 1. Problem identification
- 2. Generation of possible problem interventions
- 3. Selection of an intervention
- 4. Implementing and evaluation of the intervention
- 5. Revision of unsuccessful interventions

The problem-solving process shared by these models is collaborative. All participants are assumed to have equal levels of expertise and the referring teacher retains ownership of the problem throughout the process. (In this respect, collaborative consultation differs from traditional expert-based models of consultation in which the consultant is assumed to have more expertise than the consultee and the consultee, in effect, relinquishes ownership of the problem to the consultant.) The objective of the problem-solving process is to provide direct service to the teacher, not to the student, in hopes of enabling the teacher to accommodate the mildly handicapped student within the least restrictive environment - the regular classroom.

Outcome Research in Prereferral Intervention Procedures

The high face value of prereferral intervention models has led to their extensive implementation. Yet, despite reports of of their widespread use (Carter & Sugai, 1989), research on the effectiveness of these practices is relatively scarce. Effectiveness or outcome research is more plentiful in the general field of consultation (which includes school, mental health, and psychological consultation). Research in school consultation has addressed many aspects of the consultation process: theories underlying school consultation models (West & Idol, 1987); the methodology of consultation research (Gresham & Kendall, 1987); teacher competencies (West & Cannon, 1988); and consultant training and practice (Friend, 1984; Idol & West, 1987). However, Medway (1982) cautioned that effectiveness of consultation should only be interpreted with respect to the consultation model used.

In their meta-analysis of consultation outcome research, Mannino and Shore (1975) defined an outcome as:

(a) a change in the skill level of the referring teacher (consultee); (b) a change in the student's behaviour; or (c) an improvement in service delivery within the system. This review focuses on outcome research in prereferral models of school consultation. Findings in the area of problem identification within the general area of school consultation were also included. Particular attention is directed at the Teacher Assistance Team model (Chalfant,

Pysh & Moultrie, 1979) which, under the name Project TEAMS (Teaming for Educational Alternatives, Modifications, and Strategies) was implemented in Vancouver schools and is the focus of this study.

This examination of outcome research in prereferral intervention procedures includes: (a) the Prereferral Intervention System (Graden, Casey, & Christenson, 1985), (b) the Teacher Assistance Team model (Chalfant, Pysh & Moultrie, 1979), and (c) special education consultation models in which teachers collaborate to develop, implement, and evaluate interventions which attempt to meet the needs of at-risk children before referring those children for special education service. The effectiveness of these procedures has been evaluated in terms of outcomes in special education referral rates, teacher attitudes, student achievement, and student behaviours.

A. The Prereferral Intervention System. The Prereferral Intervention System (Graden, Casey, & Bonstrom, 1985) is one in which the referring teacher requests assistance from a consultant who could be the school special education teacher, psychologist, or other resource person. The process has six stages. The first four, request for consultation, consultation, observation, and conference, are "prereferral". The remaining two stages, formal referral and formal program meeting, constitute the decision-making process for special education eligibility.

The initial four stages of this process are carried out by the classroom teacher and an assigned consultant.

Together, they assess the student's needs, design, implement, and evaluate an intervention. The consultant gives direct support to the teacher through the problemsolving meeting and may assist with the assessment of the student. The consultant also coordinates the "Child Review Team" which enters the process in the final two stages.

Effectiveness research conducted by Graden, Casey, and Bonstrom (1985) on the Prereferral Intervention System focussed on outcomes in referral rates and teacher attitudes. In the 1982-83 academic year the Prereferral Intervention System was implemented in six schools in a large suburban school district. In two elementary schools (schools 1 and 2) and one junior secondary school (school 3) the model was implemented using special education resource teachers as consulting teachers to the classroom teachers. In another two elementary schools (schools 4 and 5) and one junior secondary school, (school 6) the model was implemented using a school psychologist who was assigned to all three schools as a consultant. Several special class teachers at schools 4, 5, and 6 assisted with the consultation as their time allowed. In schools 1 and 2 the Prereferral Intervention System met with resistance by the staffs and failed to become established. Results of the study indicated that referrals for special education services were significantly reduced in schools 3, 4, 5, and

6 and that staffs perceived the process as helpful and effective. Graden et al. attributed the lack of change in two schools to the failure to establish the Prereferral Intervention System in those schools. Nonetheless, the Prereferral Intervention System dramatically altered the traditional referral to placement sequence. Graden et al. concluded that this study provided "at least tentative support" for the potential effectiveness of a prereferral intervention model of service delivery as an alternative to traditional practices.

B. The Teacher Assistance Team Model. The Teacher Assistance Team (TAT) is a process in which a group of three classroom teachers uses peer collaboration to aid their colleagues who are trying to meet the needs of children with learning and behaviour problems. In this process, the referring teacher becomes an equal member of a problemsolving team and retains full responsibility for the referred student. Chalfant, Pysh, and Moultrie (1979) recommended that the TAT be composed of the referring teacher, a parent of the referred student, and three classroom teachers elected from the staff they serve. Chalfant et al. cautioned against the inclusion of principals or specialists on the teams lest they be assigned the role of "expert", which would undermine the essence of peer collaboration. They suggested that the ideal TAT member is an experienced classroom teacher who has a supportive personality, good communication skills, and a

genuine interest in helping other teachers solve classroom problems.

The TAT process consists of four phases: (a) teacher referral, (b) review of the referral, (c) requests for specific information (and classroom visit), and (d) problemsolving meeting.

Chalfant, Pysh, and Moultrie (1979) described the effectiveness of the TAT model in terms of referral rates and teacher attitudes. They studied the model in Highland Park, Illinois. There, TATs worked with 203 students in seven schools. The TATs resolved the difficulties of 129 children and referred 74 to special education for more intensive help. In the second year of the project the model was implemented and evaluated in fifteen schools in Arizona, Illinois, and Nebraska (Chalfant & Pysh, 1981). Two hundred students were referred to the TATs in urban and rural schools. The TATs were able to resolve the problems of 133 students, 30 of whom were mainstreamed handicapped students. The remaining 67 students were referred to special education and 54 were found elegible for special education services. Chalfant and Pysh cite the results of these studies as evidence that TATs:

- "1. Help teachers to establish successful programs for students with learning and behavioral problems;
 - 2. Provide support to teachers in

mainstreaming handicapped students;

- 3. Provide an efficient prereferral screening for special education services; and
- 4. Can be effectively replicated in school districts with a variety of characteristics" (Chalfant & Pysh, 1981, p.22).

In 1985, the TAT model was implemented in two elementary schools in Olympia, Washington. Data were collected on special education referral rates, student achievement, and teacher attitudes. MacDonald (1987) reported an extraordinary reduction in referrals to special education. "In the first year of the project the two implementing buildings, with a combined total of about 700 students referred one student to special education. The second-year buildings, with a combined student body of about 900, referred 19" (p. 17). MacDonald also reported gains in student achievement in schools that implemented the TAT model. Results of standardized group achievement tests showed "substantial gains in reading" (p. 17) for grades 2, 3, 4, and 5.

McDonald compared changes in teacher attitudes in schools which implemented the TAT model with those that did not. After one year of using the TAT model, teachers in the implementing schools both desired and experienced significantly less pull-out instruction. There was a significant increase in services delivered in the basic education classroom and teachers were significantly more

positive about the quality of support and consultant services who helped them to serve students with problems in the regular classroom.

In 1987 the TAT was implemented in the district's six schools and one middle school. Wood (undated) reported that referrals to special education for assessment and placement were 80% fewer than in comparison schools with each school averaging two referrals. Students with mildly handicapping conditions were usually being served in regular classrooms. Surveys revealed that teachers' perceptions of levels of service and involvement within regular classrooms were significantly positive. Overall student achievement patterns continued to be positive and special needs students in project schools gained more in comparison to their peers in non-project schools in the area of reading.

Both MacDonald (1987) and Wood (undated) suggest that the TAT model has been highly successful in Olympia schools. They report that classroom teachers were satisfied with the TAT model and Teacher Assistance Teams significantly reduced inappropriate referrals for special education services. However, neither of their accounts provides comprehensive information on the methodology used in the studies. In addition, the data MacDonald described on increases in student achievement in the project schools is puzzling because there was no suggestion as to why the implementation of the TAT model should raise the achievement of students who are not at risk. For these reasons, their results must

be considered as tentative.

The findings of MacDonald (1987), Wood (1988),
Chalfant, Pysh, and Moultrie (1979) regarding TATs reducing
referrals to special education have been replicated by other
researchers. Schram and Semmel (1985) found that TATs were
effective in helping 62% of the students referred and
provided screening for students requiring special education
services. They also reported that TATs increased teachers'
knowledge of instructional alternatives and provided
interventions suited to students' individual needs. Thus,
outcomes of TATs as resulting in reduced special education
referrals and increased teacher knowledge amd skills were
consistent throughout the literature.

Hayek (1987), however, found positive and negative indicators of TAT effectiveness. To determine the impact of attitudes on teachers referral of students, he surveyed a random sample of Georgia's teachers and administrators after TATs had been mandated state-wide for a year. Hayek found that teachers believed the TAT process was helpful to students. However, he also discovered that 67% of the teachers felt that the time and paperwork involved in the process made them hesitant about referring students to the TATs. Fifty percent of the 1,251 teachers surveyed indicated that more students would be referred for special education services if the TAT process were eliminated. Hayek noted that these findings were correlated with teachers' frustration with lack of time. These equivocal

results suggest that the reduction in referral rates to special education may not be a valid indicator of TAT effectiveness as a problem-solving tool. Instead, referral rates may serve as an indicator of TAT's nuisance value to teachers who are required to refer to TATs before being permitted to refer for special education service.

C. Special Education Consultation. Special education consultation is a generic term that refers to the practice of providing consultation assistance to classroom teachers who are concerned about students prior to placement in a special education program. When used for prereferral intervention, special education consultation provides direct service to the classroom teacher, not to the student. The consultation is collaborative. Neither party assumes the role of expert, and the object is to solve student problems. The special education consultant is usually a resource teacher, special education teacher, or psychologist.

Special education consultation is more widely practiced than either The Prereferral Intervention System or the Teacher Assistance Team model.

Consequently, it has been the object of more extensive study. Idol (1988) examined individual studies and meta-analyses of school psychology consultation outcomes and reported the following conclusions:

(a) consultation is an effective means of increasing mildly handicapped students' academic and social skills:

- (b) classroom teachers who receive consultation develop strategies to assist all children, not just handicapped learners;
- (c) consultation is cost efficient, enabling special education teachers to manage large caseloads since they do not provide direct service to students;
- (d) consultation allows teachers to prevent some student problems;
- (e) consultation results in school professionals and parents becoming more involved in a student's programs;
- (f) consultation results in fewer referrals for special education class placement; and
- (g) consultation assists in the identification of staff development needs.

These outcomes, like those of the Prereferral
Intervention Process and Teacher Assistance Team
effectiveness studies, indicate changes in teacher skill and
student behaviours and also, indicate system level
improvement. However, research in the area of school
consultation has also examined variables within
theconsultation process in an effort to identify the
relation of those variables to consultation outcomes. Of
particular relevance to this study are findings concerning
the first phase of the consultation process - problem
identification.

Problem Identification

In the collaborative problem-solving procedures used in

prereferral intervention, problem identification can be defined as establishing a treatment goal and/or target behaviours. The importance of problem identification was first established when Bergan and Tombari (1976) identified this phase as most critical to the success of the entire consultation process. Bergan and Tombari studied the effect of consultant skills and efficiency on three phases of the problem-solving process: problem identification, plan implementation, and problem solution. After examining transcripts of 806 problem-solving interviews and their corresponding case report summaries, they discovered that a consultant's skills had the greatest impact on the problemsolving process at the problem identification phase. and Tombari verified the successful completion of the problem identification phase, in interviews between the school psychologist and the referring teacher, by examining transcripts of the interviews to ascertain whether problem identification took place or not. They found that successful problem identification virtually guaranteed a successful problem solution and in cases where the problem was not identified, the problem-solving process terminated prematurely. In these latter cases the teacher often withdrew the referral or redirected it to another agency or service. In some cases children left the class or school.

Bergan and Tombari (1976) established the importance of problem identification to successful school consultation.

Pugach and Johnson (1988) isolated this phase in a study of a prereferral intervention procedure using the special education consultation model. In the intervention group, 48 teachers grouped from southeasten Wisconsin and central Illinois were grouped in 21 pairs, and 3 triads. The study included a control group of 43 elementary teachers from the same area.

Teachers in the intervention group used peer collaboration to develop and implement alernative interventions for students with learning and behavior problems. Referring teachers met with a peer partner who had been trained in a structured, four step problem-solving process involving: (a) problem clarification through self-questioning, (b) problem summarization, (c) generating potential interventions and predicting their outcomes, and (d) developing an evaluation plan.

Pugach and Johnson (1988) examined 70 problems and, using the constant comparative method (Glaser & Strauss, 1967), generated nine categories in which to classify the problems. Problems were categorized as they were described initially and again as summarized after teachers had engaged in a problem clarification process. Pugach and Johnson found that 64 of the problems (91%) shifted to new categories following the clarification process.

Only two problems each described as off-task behaviour and acting-out behaviour remained in the same category following clarification and only one each remained in the

categories of poor motivation/attitude and low general achievement. Further, only one problem was coded in the category of poor self-concept as a description; 12 were so categorized in subsequent problem summaries. Similarly, no descriptions focussed on the absence of an appropriate structure in the classroom, while 18 were so categorized in summaries (Pugach & Johnson, p.12).

Pugach and Johnson (1988) concluded that this "dramatic" comparison revealed that as teachers became more specific in their understanding of problems they were able to discuss them in a manner which led more easily to solution. Pugach and Johnson measured the success of the treatment group as problem solvers by administering an inventory of student teachability before and after training in peer collaboration. Results of the study indicated that the treatment group significantly increased its tolerance for students with learning and behaviour problems without any decrease in expectations regarding student compliance with classroom routines. However, Pugach and Johnson did not postulate any correlation between teachers' reconceptualization of problems and their increased tolerance for problem students. In fact, they said little about teachers' reconceptualization of problems other than that it had occurred.

Research into the nature of problem conceptualization in various disciplines, computer programming (Adelson, 1984), physics (Chi, Feltovich & Glaser, 1981), and

mathematics, (Schoenfeld & Herrmann, 1982), has shown that experts solving problems in these domains initially direct their attention toward more abstract conceptual entities, whereas novices focus on more concrete "surface" features of problems. This distinction between abstract and concrete features of problem categories may be relevent to Pugach and Johnson's (1988) study. It is possible that, as the teachers reconceptualized the features of problems, their professional expertise increased and resulted in increased tolerance for problem students.

The studies by Bergan and Tombari (1976) and by Pugach and Johnson (1988) support the hypothesis that a successful problem identification stage within the peer collaboration process is a valid indicator of success in increasing teachers' ability and willingness to accommodate and assist children with learning and behaviour problems within their classrooms.

The Current Study

This study focussed on problems referred to Teacher
Assistance Team meetings in Project TEAMS. The problems are
examined in respect to two consultation outcomes: special
education referral reduction and problem identification.

Special education referral reduction. Chalfant, Pysh, and Moultrie (1979), Graden, Casey, and Bonstrom (1985), and MacDonald (1987) surmised that reductions in the numbers of students referred for special education services were a valid indicator of prereferral intervention effectiveness.

This reasoning is based on the implicit assumption that problems brought to prereferral consultations are identical in nature to referrals for traditional special education services. If that is the case, then reduction in numbers of problems referred for special education service is a valid indicator of prereferral intervention effectiveness. However, other factors influence teachers' decisions to refer students for evaluation.

Hayek's report (1987) that the time and paperwork involved in the TAT process deterred teachers from making TAT referrals (which were prerequisite to special education referral) is only one of several reasons why reduction in special education referrals may not be a valid indicator of TAT effectiveness. Christenson, Ysseldyke, and Algozzine (1982) found that teachers' referral decisions were influenced by the availability of services and teachers' perceptions of the professional competence of referral recipients. view of these constraints, it is possible that classroom teachers may withhold certain types of problems from special education personnel because they do not see any advantage to making the referral. may be that the Teacher Assistance Team offers teachers a solution to a different type of problem. That is, the problems referred to TATs may be different in nature from those referred to special education. Given these possibilities, and because Project TEAMS was in

its first year, it was felt to be premature to utilize data on the reduction in referrals to special education as a major variable in research. Rather, this study examined the problems referred to TATs to discover whether those problems were, indeed, similar in nature to those traditionally referred to special education. This led to research hypothesis 1:

There will be no significant difference between problem descriptions made by referring teachers in referrals to School-based Teams and those made by teachers in referrals to Teacher Assistance Teams.

Problem identification. The study of the problem identification phase of the consultation process indicates that successful identification of treatment goals and/or target behaviours is positively correlated to successful problem solution. Therefore, the problem identification/clarification phase in the Teacher Assistance Team process was considered to be a valid predictor of problem-solving effectiveness. The problem identification phase of the TAT meeting was examined to discover the nature of the problem descriptions.

This led to research hypothesis 2:

There will be no significant difference between problem descriptions made by referring teachers and problem descriptions arrived at by consensus at Teacher Assistance Team meetings.

In summary, the research literature in consultation and prereferral interventions supports the use of the problem identification and clarification processes as indicators of the effectiveness of the TAT process. Reduction in referrals to special education has also been an effectiveness indicator, but there is some question as to the validity of that practice. Therefore, this investigation was carried out to examine problem descriptions and statements in both TATs and School-based Teams in sufficient detail to discover if and how they are similar.

CHAPTER THREE

Methodology →

This study focussed on the Teacher Assistance Team (TAT) model in four Vancouver schools. Under the name Project TEAMS (Teaming for Educational Alternatives, Modifications and Strategies), these schools formed five Teacher Assistance Teams in June and September of 1988. (Because of its size, one school formed 2 teams). Team members completed their training in the peer consultation/TAT meeting procedure in October 1988 and began accepting referrals at that time.

The purpose of the study was two-fold: (a) to ascertain whether the problems referred to TATs were, in fact, similar to those traditionally referred to special education; and (b) to determine if descriptions of problems referred to Teacher Assistance Teams changed as a result of the TAT process.

Research Hypotheses

The research hypotheses were:

- 1. There will be no significant difference between problem descriptions made by referring teachers in referrals to School-based Teams and those made by teachers in referrals to Teacher Assistance Teams.
- 2. There will be no significant difference between problem descriptions made by referring teachers and problem descriptions arrived at by consensus at Teacher Assistance Team meetings.

Definition of Terms

Teacher Assistance Team

The five Teacher Assistance Teams (TATs) in this study were problem-solving teams, each composed of three elementary classroom teachers. The teams followed the Teacher Assistance Team model introduced by Chalfant, Pysh, and Moultrie (1979) and members were trained in a collaborative problem-solving process. Chalfant et al. recommended that team members be elected by their staffs. In Project TEAMS, schools A, B and D elected their TAT members by acclamation. In school C where two teams were formed, a balance of primary and intermediate representation was sought in team composition. Three intermediate teachers were elected by staff vote.

The mandate of these teams was to assist teachers solve problems of learning or behaviour. Teachers were asked to begin referring such problems to the Teacher Assistance Teams.

School-based Team

The School-based Team (SBT) is a multi-disciplinary group which can include the school principal, the learning assistance (resource room) teacher, the school psychologist, and other specialists. The team meets to evaluate referrals for special education services. In Vancouver, the avenue for referral to the School-based Team is through the learning assistance teacher.

Teacher Assistance Team Meetings

Teacher Assistance Team meetings are half hour problem-solving sessions during which the referring teacher and the Teacher Assistance Team members address the student's problem. The meeting format is:

- Problem identification (five minutes);
- Goal setting (three minutes);
- 3. Brainstorming possible interventions (ten minutes);
- Selecting an intervention (two minutes);
- Developing an implementation plan (five minutes);
 and
- 6. Developing a plan for evaluating the progress of the intervention (five minutes).

Problem Description

The problem description is the referring teacher's initial description of the problem as stated on the referral to (a) the Teacher Assistance Team or to (b) the School-based Team.

A. Problem description in School-based Team referrals. In Vancouver schools, referrals to School-based Teams encompass the first page of the Individual Education Plan under the headings "A. Student Profile" which solicits demographic information and "B. Classroom Teacher Information" which solicits goals for learning assistance, other concerns, assessment data, and teacher comments on the student's strengths, needs and learning style (see Appendix A: Sample Referral to School-based Team).

B. Problem description in Teacher Assistance Team

referrals. Referrals to Teacher Assistance Teams varied in format from school to school but all included a section for demographic information and questions that addressed the broad goals of the referral. The TAT referral form was similar to the SBT form in that both forms solicited information on pupil strengths and weaknesses (needs), and background information and test data. The forms were different in that TAT referral forms asked teachers what strategies had been tried already (see Appendix B: Sample Referral to Teacher Assistance Team).

Problem Statement

The problem statement is the description of the problem which has been reached by consensus by the referring teacher and the Teacher Assistance Team at the conclusion of the problem identification phase of the TAT meeting. The problem statement is part of the TAT meeting record and space allotted is sufficient to accommodate one to three sentences (see Appendix C: Sample Teacher Assistance Team Meeting Record).

Procedures

Subjects

Project TEAMS participants included the teaching staffs of four Vancouver schools. The number of teachers and students within each school are indicated in Table 1.

TABLE 1
Populations of TEAMS and Control Schools

School	No. of teachers	No. of students
A	30	482
В	17	364
С	35	613
D	12	284
E (control)	26	478

Schools A and C are located on the east side of

Vancouver and have large ESL populations. Children come

from low to moderate income families. Schools B and C are

located on the west side of the city and have smaller

English as a Second Language (ESL) populations. School B

is situated in a moderate to high income area and school D,

located in a high income area near an Indian reserve, serves

a mixed population of students.

School E was chosen as a control school for School-based Team records because of its general representativeness to the Vancouver school population. It is a large school with students from a range of socioeconomic backgrounds that is similar to the over-all range in the Project TEAMS schools. It also serves a large number of ESL students, as do the TEAMS schools collectively. The student and staff population in school E is relatively stable, as are the populations in the Project TEAMS schools. School E is large and heterogeneous enough to be free of idiosyncrasies caused by the domination of any single demographic factor.

The Project TEAMS pilot schools were chosen from seven

that requested to participate in the project. Project directors chose schools on the basis of demonstrated need for the service (as indicated by "wait lists" for special class placement and numbers of "at risk" students) and on the basis of staffing factors. They eliminated schools in which large numbers of staff were leaving, or in which staffs were involved with school-based projects such as the Inner City Schools project.

Teacher Assistance Team Training

In October 1988, team members received approximately 15 hours of training in the TAT process. Training focussed primarily on collaborative problem-solving skills. collaborative problem-solving process begins with the problem identification stage. Teacher Assistance Team members were trained to use a clustering technique to facilitate problem identification. During the training sessions, groups of teachers generated sample referrals using actual problems that they were experiencing or had previously encountered. Each group of teachers exchanged the problems generated with another group. Within the groups, teachers transferred individual bits of information from selected sample referrals onto small pieces of paper and grouped the attributes into clusters with headings such as "academic", "social", or "home" and, thus, created an overall pattern for each child. They identified information gaps in the pattern and generated questions to fill those gaps. Subsequently, the teams met with the referring

teachers, obtained the missing information, and then arrived at a consensus about the nature of the child's problem.

Members completed their training in the peer consultation/TAT meeting procedure in October 1988 and began accepting referrals at that time.

Additional training in curriculum-based assessment methods and learning strategies was given to staffs of all four schools. In October, 1988, school staffs attended a one day workshop on curriculum-based assessment with Dr.

James Tucker. Teacher Assistance Team members received an additional day of instruction on the topic. The session stressed that, when faced with children with learning and behavior problems, teachers should look for deficits in the instructional environment. Dr. Tucker demonstrated several methods of curriculum-based assessment which indicate the appropriateness of the level of instruction in the classroom in relation to the child's level of readiness.

During the months of December and January, teaching staffs at the four TEAMS schools were trained in the use of learning strategies. The purpose of this training was to give teachers a method of adapting instruction to accommodate a variety of ability levels in a large group.

Data Collection

Data consisted of photocopies of all referrals to TATs (n=30) and TAT meeting records (n=27) for the 1988-89 school year. The data also included photocopies of referrals to School-based Teams in schools C and D for the 1987-88 school

year (n=31) and referrals to School-based Teams (SBTs) in school E for the 1987-88 school year (n=14) and for the 1988-89 school year (n=53). For itemization of referrals in each school, see Table 2.

TABLE 2

Numbers of TAT Referrals and Meeting Records and SBT

Referrals Within Schools

School	TAT referrals	TAT meeting records	SBT referrals 1987-88	SBT referrals 1988-89
A	11	11	0	0
В	7	4*	0	0
С	5	5	5	0
D	7	7	26	0
Ε	0	. 0	14	53
Total	30	27	45	53

^{*} In school B, the record of one TAT meeting was lost and in two instances TAT meetings did not take place, once because the student transferred and once because of the urgency of the problem.

Two steps were taken to determine the representativeness of 1988-89 referrals to School-based Teams.

- (a) Problem statements from 1987-88 referrals to School-based Teams at schools C and D were collected as indicators of what 1988-89 SBT referrals might have been. (Schools A and B had not kept SBT referrals from the 1987-88 school year.)
- (b) As a cross-check to confirm the appropriateness of using 1987-88 SBT referrals from Schools C and D as comparisons

for 1988-89 TAT referrals, SBT referrals at a non-TEAMS school, School E, were collected for both the 1987-88 and 1988-89 school years.

To ensure the anonymity of schools, teachers, and students, the problem descriptions were coded to indicate the school, source (e.g. TAT referral), and number.

Data Analysis

Generating Categories. The constant comparative method (Glaser & Strauss, 1967) was used to generate a set of categories arising from the data that could be used to describe the data. Within the context of this study, this procedure consisted of four stages: (1) identifying problem descriptors contained within the data; (2) integrating descriptors into categories; (3) delimiting the categories, and (4) writing the descriptions of the categories.

Stage 1 of this process was executed by reviewing each problem description and recording words or phrases used to describe features of the problem (descriptors). The entire set of data was reviewed three times.

Stage 2 of the process was accomplished by transferring all of the descriptors to a master list where they were organized according to their similarity. At this stage two things became apparent: (a) descriptors could be sorted into three groups of general categories and then subgrouped within those categories; and (b) descriptors could be considered as negative or positive indicators (strengths and weaknesses) within the categories.

Stage 3, delimiting the categories, was effected by studying the items from the master list of properties and then defining the parameters of each category. This procedure resulted in 46 categories.

The outcome of Stage 4 was the writing of descriptions for each of the 46 categories, was detailed descriptions of each of the 46 categories (see Appendix D: Descriptions of Categories).

Describing the data. A matrix was then formed with the scoring categories ranging across one dimension and code numbers for referrals ranging across the other dimension. The experimenter then examined each referral and recorded entries in the matrix if the referral appeared to provide evidence for the presence of a scoring category. demonstration of the scoring process is presented in Appendix E: Illustration of Scoring, which contains a scored referral to a Teacher Assistance Team.) A set of rules was created to govern potentially ambiguous situations (see Appendix F: Rules for Scoring). Next, descriptions of the scoring categories and a scoring matrix were provided to a second rater who then scored each referral. Following scoring by both raters, a measure of inter-rater agreement was computed. Subsequently, both raters conferred to discuss discrepencies, refine descriptions of the categories, and expand or eliminate categories. The cycle of scoring and category refinement was repeated (five times) until the scoring scheme was clear, replicable, and appeared

to capture the essence of the referrals. The final set of scoring categories contained 46 descriptive dimensions, each containing descriptors indicating the weakness (x) or strength (o) of attributes on that dimension. Inter-rater agreement for the final scoring was .78.

After the descriptors from the referrals and problem descriptions were entered onto the matrix, the resulting data was analysed. Exploratory procedures were used to discover possible patterns or regularities in the descriptions. To get maximal information from the data, the distribution of descriptors was examined from three different aspects: a three-fold grouping of categories; a nine-fold grouping of categories; and a 46-way exploration of the individual categories. The three-fold grouping was developed because the descriptors appeared to reflect predominantly academic or behavioural concerns. Therefore, the categories were grouped into three classes, Behaviour, Academic, and External Factors. The nine-fold grouping was developed in an attempt to replicate the findings of Pugach and Johnson (1988) in regard to problem reconceptualization following peer consultation. To accomplish this comparison, the 46 individual dimensions (categories) were aggregated into 9 superordinate categories which were adopted from the Pugach and Johnson study. Finally, the 46 categories were explored singly. (See Appendix G: Grouping of Categories.)

CHAPTER FOUR

Results

The results of the analysis of the data are presented below in two major sections. The first section presents descriptive statistics which are aimed at portraying the data. The second section presents the results of the application of exploratory statistical methods which are aimed at uncovering less apparent regularities in the data.

General Characteristics of the Data

The 46 categories generated by the constant comparative method (Glaser & Strauss, 1967) were considered singly and in two groupings: one, a nine-fold grouping based on the research literature and, the other, a three-fold grouping based on intuitive classification of the 46 categories.

These groupings were formed to allow for multi-level exploratory analysis.

Overall Distribution of Weaknesses and Strengths

The initial analysis of the data computed the relative frequency with which descriptors occurred in each of the categories and within the three groups, referrals to School-based Teams (SBT), referrals to Teacher Assistance Teams (TAT1) and problem descriptions reached by consensus in the problem clarification phase of the TAT meetings (TAT2). To provide a general picture of the data, those descriptors which occurred most and least frequently overall and within each of the three groups are reported here.

Across all referrals and problem descriptions (n=155), descriptors indicating student weakness occurred with the highest frequency in the categories: Decoding Skill (39% of the referrals) and Attention (38%). In contrast, weaknesses in Reasoning (1%), Tension (1%), Attendance (2%), School/Social Experience (2%), Memory (3%), Respect for Authority (3%), and Volatility (3%) were rarely reported.

Despite the fact that referrals and problem descriptions focussed on student weaknesses, students' strengths were also noted. Across all of the data, frequently noted strengths were in the categories of Attitude (26%), Motivation (17)%, Oral Language (12%), and Attendance (8%). No strengths were reported in the categories: Verbally Abusive, Physically Aggressive, Hyperactivity, School/Social Experience or Tension.

SBT Distribution of Strengths and Weaknesses

Within School-based Team (SBT) referrals (n=98), descriptors indicating weaknesses occurred with the highest frequency in the categories of Reading Comprehension (38%), Mathematics (37%), and English as a Second Language (37%). Rarely reported were weaknesses in Attendance, Respect for Authority, Tension, Hyperactivity, Reasoning, Memory, Following Instructions, Self Control, School/Social Experience, Attitude, Disruptive, Verbally Abusive, or Friends (1% or less of the total entries).

Descriptors indicating strength occurred with the highest frequency in Attitude (33%), Motivation (24%), Oral

Language (14%), and Work Habits (10%). Strengths were never reported within the categories: Verbally Abusive, Physically Aggressive, Following Instructions, Hyperactivity, Self-control, School/Social Experience, Trustworthiness, Tension, ESL, Reading, Sentence Construction, or Memory.

TAT1 Distribution of Strengths and Weaknesses

Within the Teacher Assistance Team (TAT1) referrals (n=30), descriptors indicating weaknesses occurred with the highest frequency in Attention (60%), Work Habits (43%), Disruptive (43%), and Family/Home (40%). Weakness in Language Arts was never reported. Rarely reported were weaknesses in School/Social Experience (3%), Tension (3%), Sentence Construction (3%) or Handwriting (3%).

Descriptors indicating strengths occurred with the highest frequency in Attitude (30%), Reading (23%), Reasoning (20%), Oral Language (17%), General Behaviour (13%), and Mathematics (13%). TAT referrals indicated strengths in only 28 of the 46 categories.

TAT2 Distribution of Strengths and Weaknesses

Within the Teacher Assistance Team (TAT2) problem descriptions (n=27), descriptors indicating weakness occurred with the highest frequency in Attention (33%), Assignment Completion (30%), and Disruptive (26%).

Weaknesses were not reported in 13 of the 46 categories. No Teacher Assistance Team problem descriptions included descriptions of students' strengths.

Comparison of Overall SBT and TAT1 Distributions

Comparision of the distribution of indications of strengths and weaknesses (across all 46 categories) for the SBT and TAT1 groups showed no statistically significant differences $[x^2(1, n = 946) = .01, p).05]$. In both groups of referrals or problem descriptions weaknesses dominated strengths three to one (see Table 3).

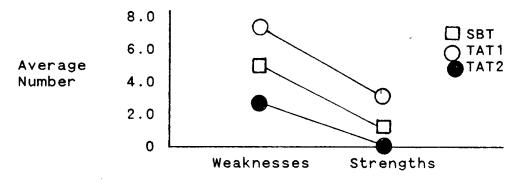
Frequency of Weaknesses and Strengths Within SBT, TAT1, and TAT2 Groups

	SBT	TAT1	TAT2
Weaknesses	480	229	77
Strengths	162	78	0

While the overall proportion of strengths and weaknesses identified within SBT and TAT1 referrals was roughly comparable, the total volume of strengths and weaknesses differed. Means were computed for the numbers of weaknesses and strengths per referral within groups.

Examination of the means suggested that TAT1 referrals included more strengths and weaknesses (M = 10.3) than did SBT referrals (M = 6.6) or TAT2 problem descriptions (M = 2.85). As well, the type of referral description (i.e., a

strength or weakness) also differed. Across groups, the average number of weaknesses per referral (\underline{M} = 5.1) exceeded the average number of strengths (\underline{M} = 1.5). Figure 1 displays the mean number of strengths and weaknesses for each group.



<u>Figure 1.</u> Mean number of strengths and weaknesses for each group.

To explore possible differences between SBT and TAT1 groups, the relative percentages of weaknesses were compared for each of the 46 descriptive categories. It was found that SBT referrals contained 20% more weaknesses than TAT1 referrals for the categories ESL, Reading Comprehension, Decoding Skills, Written Expression, and Spelling. On the other hand, TAT1 referrals contained 20% more weaknesses than SBT referrals for the categories, Work Habits, Attention, Assignment Completion, Disruptive, Attention Seeking, Social Problems, Friends, Hyperactivity, and Family/Home. Intuitive comparison of the distribution of the categories in the groups suggested that SBT referrals

identified more academic concerns and TAT1 referrals cited more behavioural concerns.

Comparison of TAT1 and TAT2 Distributions

Further comparisions were made of the distribution of strengths and weaknesses (across all 46 variables) for the TAT1 and TAT2 groups. A chi-squared test of the independence of the distributions was significant $[x^2]$ (1, n = 375) = 25.7, p<.001)]. Examination of the residuals showed that this significance was chiefly due to the absence of positive descriptors (i.e. strengths) in TAT2 problem descriptions.

Although there was a significant difference in the ratio of weaknesses to strengths between TAT1 referrals and TAT2 problem descriptions, several variables were notably stable. That is, for some variables, a weakness noted in the initial referral to TAT (TAT1) tended to remain as a difficulty in the description of the problem reached by consensus at the TAT meeting (TAT2). However, of the 229 weaknesses noted in TAT1 referrals, only 79 remained in TAT2 problem descriptions. The most persistant difficulties were in Assignment Completion, General Behaviour, Physically Aggressive, Working Cooperatively, Respect For Authority, Self-control, School/Social Experience, Tension, Written Expression, and Handwriting. In thirteen of the categories, descriptors present in TAT1 referrals were never found in

TAT2 problem descriptions. (See Appendix H: Percentage of Problems Retained From TAT1 to TAT2.) It is worth noting that, except for Assignment Completion, none of the problem descriptors which persisted from TAT1 to TAT2 occurred with relatively high frequency in either TAT1 or TAT2 distributions of weaknesses. Thus, problem reconceptualization, if it has occurred in TAT2 referrals, may be represented by the isolation of a few subtle difficulties against a backdrop of other student problems, rather than a complete shift in the nature of the students' problem.

Summary. In summary, the descriptive statistics revealed differences and similarities between the nature and numbers of descriptors used in the three groups. The highlights of the distribution of strengths and weaknesses are presented in Table 4 below. The information presented in the table reflects the finding that SBT descriptors tended to be predominantly academic in focus, whereas TAT1 and TAT2 descriptors were predominantly behavioural in nature.

Although the proportion of weaknesses to strengths (three to one) was roughly consistent throughout the three groups, the numbers differed. Teachers supplied a greater volume of descriptors for TAT1 referrals, less for SBT referrals, and least for TAT2 problem descriptions.

TABLE 4

High Frequency Weaknesses and Strengths in SBT. TAT1 and TAT2 Groups

		Groups		
	SBT	TAT1	TAT2	
Weaknesses	Reading Comp. Mathematics ESL	Attention Work Habits Disruptive Family/Home	Attention Assignment letion Disruptive	Comp-
Strengths	Attitude Motivation Oral Language Work Habits	Attitude Reading e Reasoning General Behaviour Mathematics		

Exploratory Analyses

Because the research hypotheses did not specify the nature of similarities expected between SBT, TAT1, and TAT2 groups; exploratory, rather than hypothesis testing procedures were used to discover possible regularities in the description of referrals and problem descriptions. First, the data were examined to see if referrals and problem description differed in regard to a dominance of behavioural or academic concerns. Second, the 46 categories were grouped into the nine-fold categorization of referral difficulties identified by Pugach and Johnson (1988). Third, hierarchical clustering techniques were employed to uncover possible empirical groupings and dimensions in the 46 categories of descriptors used in referrals and problem

descriptions.

Analysis of Behavioural Compared with Academic Concerns

The descriptive statistics results found that nine descriptive categories were observed with a high frequency among SBT referrals, and that five different descriptive categories were observed with high frequency among TAT1 referrals. These differing descriptive categories seemed to divide into behavioural compared to academic groupings. Based on this intuitive hypothesis, a three-fold grouping of categories, behavioural, external, and academic factors was Behavioural factors were comprised of categories 1 to 26; external factors included categories 27 and 28; and academic factors included categories 29 to 46 (see Appendix G: Grouping of Categories). Each of the original 46 descriptive categories was then sorted into one of the three groups. To achieve a degree of validity in the assignment of descriptive categories to factors, another individual conducted a similar sorting and discrepencies were resolved through consultation with two individuals, (a school principal and a team leader from a diagnostic teaching and evaluation centre) unconnected with this study.

The frequency of occurrence of descriptors indicating students' weaknesses or strengths within each of the three factors for the three groups, SBT, TAT1, and TAT2 is shown in Tables 5 and 6 below.

Frequency of Behavioural, External, and Academic Factors in Descriptions of SBT, TAT1, and TAT2 Weaknesses

	W	eakness	es	
	SBT	TAT1	TAT2	
A: Behavioural Factors	121	156	59	
B: External Factors	16	15	0	
C: Academic Factors	343	58	18	

Frequency of Behavioural, External, and Academic Factors in Descriptions of SBT, TAT1, and TAT2 Strengths

		S	trengt	าร	
	*	SBT	TAT1	TAT2	
<u>A</u> :	Behavioural Factors	108	35	0	
В:	External Factors	6	4	0	
C:	Academic Factors	48	39	0	

Distribution of weaknesses. To test the hypothesis that SBT, TAT1 and TAT2 might be distinguished by a majority of behavioural compared to academic concerns, chi-squared analyses were performed on the distribution of weaknesses and strengths. A chi-squared test of the independence of the distribution of weaknesses across the three groups (SBT, TAT1, and TAT2) and three types of factors produced the statistic $x^2(4, n = 774) = 173.6$, (p<.01). Since the p value for this statistic was less than alpha, (\Rightarrow =.05), the

observed distribution of weaknesses differed from the expected distribution in a significant manner.

Comparison with the expected frequencies revealed a higher than expected frequency of academic weaknesses expressed among SBT referrals, and conversely, a lower than expected frequency of behavioural weaknesses in SBT referrals. On the other hand, both TAT1 and TAT2 referrals included a higher than expected frequency of behavioural weaknesses and a lower than expected frequency of academic weaknesses. These results corroborated the observation made from examination of the descriptive statistics; namely, weaknesses described in SBT referrals were generally Academic Factors and weaknesses described in TAT referrals and problem descriptions were generally Behavioural Factors.

To discover whether a similar distinction existed between TAT1 and TAT2 groups, chi-squared analyses were conducted to compare the distributions of descriptors indicating weaknesses. The resulting statistic, $x^2(2, n = 297) = 5.77$, p<.10), was not significant. This result indicated no real distinction between the TAT1 referrals and TAT2 problem descriptions in regards to academic compared with behavioural concerns.

<u>Distribution of strengths</u>. A similar analysis of the distribution of strengths was conducted. The resultant chisquared statistic, with empty TAT2 cells omitted, was significant $[x^2(2, n = 240) = 9.88, p(.01)]$. Examination of the residuals revealed an inverse of the findings regarding

the distribution of weaknesses among the referrals. While, as in the previous results, External Factors played a minor role in the overall significant chi-squared statistic, a greater than expected number of Academic Factors were found among TAT1 referrals. This number was counterbalanced by a smaller than expected number of Behavioural Factors. In contrast, SBT referrals included a smaller than expected number of Academic strengths and a greater than expected number of Behavioural strengths.

Summary. In summary, statistical comparison of the distribution of weaknesses and strengths across the three groups (SBT, TAT1, and TAT2) and three types of factors produced results relevant to both thesis hypotheses. Two findings contradict the first null hypothesis: (a) SBT referrals contain a higher proportion of academic concerns than do TAT1 referrals and TAT2 problem descriptions; and (b) TAT1 referrals and TAT2 problem descriptions contain a higher proportion of behavioural concerns than do SBT referrals. A third finding, that TAT1 referrals compared with TAT2 problem descriptions do not differ significantly in respect to academic and behavioural concerns, supports the second null hypothesis.

Analysis of Pugach and Johnson's Nine-Fold Categorization Scheme.

When Pugach and Johnson (1988) employed the constant comparative method (Glaser & Strauss, 1967) to classify problems referred to peer collaboration (a pre-referral

procedure) they identified the following nine problem categories:

- P1. Off-task/distractible;
- P2. Poor self-concept;
- P3. Poor motivation/attitude;
- P4. Act-out/hostile/disruptive;
- P5. Talk-out;
- P6. Poor work completion;
- P7. Low general achievement;
- P8. Specific skill deficit; and
- P9. Other

Because the present study closely resembled the Pugach and Johnson study, their classification scheme was imposed on the 46 categories generated by the author. This was accomplished by assigning each of the 46 categories to the corresponding Pugach and Johnson category. Another individual conducted a similar sorting and discrepencies were resolved by consulting with two educators who were independent of the study. The resultant nine-fold categorization scheme (see Appendix G: Grouping of Categories) was used to re-examine the thesis hypotheses.

The observed frequencies of student weaknesses that fell within each of the nine categories adopted from Pugach and Johnson are reported in Table 7.

Observed Frequencies of Student Weaknesses for each Group
Using Pugach and Johnson's Categories

Pugach and Johnson	Observ	ved frequ	encies	
Categories	SBT	TAT1	TAT2	
P1	8	13	2	
P2	9	5	3	
P3	17	15	3	
P4	51	75	29	
P5	4	12	4	
P6	14	39	13	
P7	55	13	4	
P8	287	40	13	
P9	20	26	3	

Overall independence of distribution of weaknesses. A chi-squared test of the independence of the distribution of weaknesses across the three groups (SBT, TAT1, and TAT2) and the nine Pugach and Johnson categories produced the statistic $x^2(16, n = 774) = 201.8$ (p<.001). This indicated that the observed distribution of weaknesses differed from expected distribution in a highly significant manner.

Examination of the contribution of each cell toward the significant chi-squared statistic revealed that the dominant components (77%) of the statistically significant result was accounted for by categories P8, P4, and P6. For each of these categories, an inverse relationship existed between the SBT and TAT1/TAT2 groups. The SBT group showed a higher than expected number of responses for P8 (specific skill deficits), whereas the TAT1 and TAT2 groups showed a lower than expected frequency for that category. On the other

hand, for both P4 (acting out/hostile/disruptive) and P6 (poor work completion) there were lower than expected frequencies of weaknesses among the SBT group and higher than expected frequencies in the TAT1 and TAT2 groups. These results substantiated the previous findings in relation to null Hypothesis 1 (i.e., the dominance of academic and behavioural descriptors within groups), and provided more specificity as to the nature of the distinction between the groups. The greatest source of discrimination between groups lay in the categories included in P8 (specific skill deficits), P4 (act out/hostile/disruptive), and P6 (poor work completion).

To explore Hypothesis 2, the chi-squared statistic for the independence of the distribution of weaknesses across the TAT1 and TAT2 groups and the nine Pugach and Johnson categories was computed. The resultant statistic, x2 (8, n=297)=6.9 (p>.10), indicated that the distribution of weaknesses between those two groups did not differ significantly. However, the number of weaknesses noted in TAT2 was roughly one third of the number noted in TAT1. This difference indicates that a majority of the weaknesses noted in TAT1 referrals were eliminated from the final TAT2 problem description.

Overall independence of distribution of strengths.

Chi-squared testing was done to discover whether proportions of strengths reported in the data were significantly different from expected distribution. However, because TAT2

problem descriptions contained no reports of strength, this analysis included only SBT and TAT1 referrals. The resulting chi-squared statistic, $x^2(8, n = 240) = 29.3$ (p <.01), indicated that the distribution of strengths throughout the Pugach and Johnson categorization scheme was significantly different from the expected distribution. The greatest contributions to the significance were made by: (a) lower than expected frequencies of SBT strengths noted in P7 (low general achievement); (b) lower than expected TAT1 strengths in P3 (poor motivation/attitude; and (c) higher than expected TAT1 strengths in P7 (low general achievement).

Hierarchical cluster analysis. Cluster analyses were conducted to discover possible co-ocurrences of the nine categories adopted from Pugach and Johnson (1988). To conduct the cluster analysis, phi coefficients were computed to form a matrix of similarity among categories.

Coefficients were computed separately for each of the three groups (SBT, TAT1, and TAT2). For each group, the correlational measures among categories were subjected to single and complete-link hierarchical clustering analysis (Johnson, 1967) and then the clustering results were tested for significance using a method proposed by Hubert and Baker (1976). Since both single and complete-link clustering solutions were obtained for each group of referrals, the methodology employed conforms to a cross-validation procedure proposed by McIntyre and Blashfield (1980), whose

intent is to indicate the stability of the resultant clustering solutions.

For the three groups (SBT, TAT1, and TAT2), an initial cluster was formed between categories P1 (off-task, distractible) and P6 (poor work completion), and then a second cluster formed between the categories P4 (acts out/hostile/disruptive) and P5 (talks out). These clusterings appeared in both single and complete-link analyses. For each of the three groups, results of the Hubert and Baker (1976) tests achieved statistical significance ($\delta = 1.0$, p< .01) for both clusters. Although further clusters were formed, not one was found to be statistically significant. This finding suggested that there were no significant differences between categories P1 and P6 or between categories P4 and P5. To eliminate redundancy, categories P4/5 and P1/6 were combined, thereby producing a modified seven-fold categorization scheme.

Analysis of the modified seven-fold categorization scheme. As a further exploratory analysis, chi-squared analyses were conducted on frequencies of weaknesses and strengths for SBT, TAT1, and TAT2 groups across the modified seven-fold Pugach and Johnson categories. The results replicated findings for the nine-fold categorization scheme. The over-all chi-squared statistic for weaknesses was highly significant $[x^2(12, n = 774) = 199.3, p<.01]$. A higher than expected number of specific skill deficits (P8) was evident for the SBT group and a lower than expected number of P8

weaknesses was present in the TAT1 and TAT2 groups. The TAT1 and TAT2 groups contained a higher than expected frequency of both P1/P6 and P4/P5 weaknesses, whereas the SBT group contained lower than expected frequencies for both of those weaknesses. No differences were found for the distribution of weaknesses between TAT1 and TAT2 referrals $[x^2(6, n = 297) = 5.0, p>.25]$.

The chi-squared statistic for the distribution of strengths was significant $[x^2(6, n=240) = 28.11, p<.01]$. The chief contributions to that result were in the same categories reported in the analysis of strengths in Pugach and Johnson's nine-fold categorization scheme.

Summary. In summary, the results of the analysis using Pugach and Johnson's categorization of student weaknesses produced results relevant to both thesis hypotheses and amplified the findings from the three-fold categorical grouping. Differences were found between SBT and TAT referrals, thus contradicting the first null hypothesis. Those differences supported earlier findings; SBT referrals were dominated by specific skill deficits (academic) and TAT1 referrals were dominated by act out/hostile/disruptive /talk out weaknesses and off-task/distractible/poor work completion weaknesses (behavioural). In regard to the second hypothesis, no differences were found in the nature of TAT1 referrals and TAT2 problem descriptions. However, teachers employed more descriptors in TAT1 referrals than in TAT2 problem descriptions. TAT2 problem descriptions

contained fewer categories. An additional finding was that the Pugach and Johnson categorization scheme contained redundancies. Categories P1 (off-task) and P6 (poor work completion), and categories P4 (act out) and P5 (talk out) were found to empirically cluster in all groups.

46-Way Analysis of Referral Descriptive Categories.

To gain an even finer-grained picture of possible differences and similarities between SBT, TAT1 and TAT2 groups than had been uncovered in the previous analyses, cluster analysis techniques were used to search for more subtle distinctions among the 46 categories considered individually.

SBT cluster formation. To examine possible groupings of the 46 categories within the SBT referrals, initally a phi correlation coefficient was computed between all pairwise combinations of the total set of descriptors. The similarity matrix contained 780 correlation coefficients among 40 categories. No weaknesses were reported in six of the SBT categories: Attendance, Respect for Authority, Hyperactivity, Tension, Reasoning, and Language Arts.

Single-link and complete-link hierarchical clustering techniques were applied to the similarity matrix to yield 18 and 19, respectively, partition levels that identified possible clusters of categories. Hubert and Baker's (1976) proposed significance tests were applied to assess the significance of the resultant groupings of categories. This method involved the calculation of a gamma statistic which

assessed the extent to which the agglomerated clusters at successive partitions of the categories reproduced the rank ordering of the similarity coefficients within the total matrix. The single-link result yielded a gamma statistic less than 1.0 at the first partition level which, when compared with appropriate monte carlo values of the gamma statistic, was not significant. The complete-link clustering was significant at the first partition level ($\delta < 1.0$, p<.01), but not at the second partition level ($\delta < 1.0$, p>.30). The clusters which were found to be significant at the first partition level were formed between categories 23 (Attitude) and 26 (Volatility), and between categories 11 (Working Cooperatively) and 17 (Self-control). In both cases the correlation coefficient was statistically significant (phi=1.0).

TAT1 cluster formation. A similar procedure was followed to discover possible clusters within the TAT referrals. For the set of TAT1 referrals, phi correlation coefficients were calculated for all pairwise combinations of 44 descriptive categories. No TAT1 referrals noted weaknesses for categories 45 (Academic Skills) or 46 (Language Arts). Assessment of the clusters found statistically significant clusters at only the first two partition levels ($\delta = 1.0$, p<.01). Both single and complete-link methods produced clusters between categories 29 (ESL) and 30 (Language Difficulties) and between categories 38 (Sentence Construction) and 40 (Handwriting).

The statistical significance of these clusters was corroborated by noting that the correlation coefficients were high and significantly different from zero for both clusters [phi (29,30) = 0.80; phi (38,40) = 1.0].

TAT2 cluster formation. Since TAT2 referrals reported no weaknesses for 14 categories, (Attendance, Following Instructions, Emotional Problems, Trustworthiness, Motivation, Volatility, Family/home Problems, Health, ESL, Language Difficulties, Vocabulary, Sentence Construction, Reasoning, and Language Arts), phi correlation coefficients were calculated between pairwise combinations of the remaining 32 categories. Only clusters at the first partition level were statistically significant (δ =1.0, p<.01). In both single and complete-link methods, three clusters formed at the first partition level. Clusters formed between categories 18 (School/social experience) and 45 (Academic Skills), between categories 33 (Listening Comprehension) and 35 (Reading Comprehension), and between categories 40 (Handwriting) and 41 (Fine Motor Skills). Again, confirmation of the statistical significance of these clusters was suggested by noting that all three pairwise correlation coefficients were high (phi=1.0).

To examine the resultant clustering solutions, the frequency of weaknesses and strengths were tabulated for each cluster, and these frequencies were cross tabulated by groups (SBT, TAT1, and TAT2). Weaknesses not falling within either of the empirically-derived clusters of categories

were placed in an "other" category. Table 8 displays these results.

TABLE 8

Frequency of Strengths and Weaknesses for Empirically
Derived Category Clusterings for SBT, TAT1, and TAT2

Category Clusters		Frequency of Weaknesses		Frequency of Strengths				
			SBT	TAT1	TAT2	SBT	TAT1	TAT2
<u>C1:</u>		(attitude) & (volatility)	3	6	1	33	9	0
C2:		<pre>(working cooperatively) (self-control)</pre>	3	10	8	4	4	0
C3:		(sentence construction) (handwriting)	15	2	1	3	0	1
C4:		(ESL) (language difficulties)	43	5	0	1	0	0
C5:		(school/social exper.) (academic skills)	14	6	2	1	3	0
C6:	40 41	<pre>(handwriting) (fine motor skills)</pre>	17	6	2	1	3	0
C7:		(listening comp.) (reading comp.)	47	5	2	2	1	0
othe	er		338	182	71	116	59	0

Chi-squared analysis of the overall distribution of weaknesses for the empirically-derived clusters indicated that the distribution was significantly different from expected values $[x^2(14, n = 779) = 72.09, p < .012]$. Since a significant overall chi-squared result suggested that there was structure in the data, further comparisons were carried out to locate possible contributions to this result.

Chi-squared analysis of the overall distribution of

weaknesses for clusters within the SBT group and the TAT1 and TAT2 groups combined was highly significant [x^2 (7, n = 779) = 65.65, p<.01]. Examination of residuals showed that the greatest contributions to this result came from C2, C4, and C7. In C2 (Working Cooperatively & Self-control), the SBT observed frequencies were lower than expected whereas the TAT1/TAT2 frequencies were higher than expected. In C4 (ESL & Language Difficulties), the SBT observed frequencies were higher than expected while the TAT1/TAT2 frequencies were lower than expected. In C7 (Listening Comprehension & Reading Comprehension) the SBT observed frequencies were higher than expected and the TAT1/TAT2 frequencies were lower than expected and the TAT1/TAT2 frequencies were lower than expected.

Chi-squared analysis of the distribution of weaknesses for clusters within TAT1 and TAT2 groups was not significant $[x^2(7, n = 309) = 5.41, p).05]$. As well, no statistically significant differences were found in the overall distribution of strengths $[x^2(7, n = 241) = 7.52, p).05]$. Summary

The cluster analysis did arrive at a finer grained picture of the differences and similarities among the groups of referrals and problem descriptions. The initial exploration of the data using the three-fold division of categories (behavioural, external, and academic factors) revealed an academic and behavioural distinction between SBT and TAT groups, but no distinction between TAT1 and TAT2 groups. These findings are summarized in Table 9 below.

Summary of the Differences in the Content of Teachers'
Descriptions of Students' Problems

	Analytic Frameworks					
Type of Referral	3 - Fold Breakdown	Pugach & Johnson Categorical Scheme	46 - Fold Breakdown			
SBT	Academic weaknesses	Specific skill deficits	ESL & Language Difficulties			
	Behavioural Strengths	Motivation/ Attitude Strengths	Listening Comp. & Reading Comp. Difficulties			
TAT	Behavioural Weaknesses	Act out/hostile/ disruptive/talk out weaknesses	Working Cooperatively & Self Control weaknesses			
	Academic Strengths	Off task/distract- ible, Poor Work Completion . weaknesses				
		General academic strengths				

Subsequent exploration using, Pugach and Johnson's categorical scheme, confirmed these findings and suggested that the SBT referrals were dominated by concerns with specific skill deficits, whereas the TAT referrals and problem descriptions were dominated by act out/hostile/disruptive/talk out weaknesses and off-task/distractible/poor work completion weaknesses.

The cluster analysis refined these initial findings. The descriptors which discriminated SBT referrals and TAT problem descriptions resided in categories: 11 (Working

Cooperatively), 17 (Self-control), 29 (ESL), 30 (Language Difficulties), 33 (Listening Comprehension), and 35 (Reading Comprehension). The cluster analysis also confirmed the lack of distinction between TAT1 referrals and TAT2 problem descriptions.

CHAPTER FIVE

Conclusions

This study was prompted by the search for an alternative to the traditional referral-to-placement sequence. Concerns about misclassification of students. over-referral for special education services, failure of teachers to document what they have tried to modify in the instructional environment, and, finally, questions about the efficacy of special class placement have resulted in the wide-spread adoption of pre-referral interventions such as Teacher Assistance Teams (Chalfant, Pysh & Moultrie, 1979). This exploratory study had two goals. The first goal of the study was to examine the Teacher Assistance Team (TAT) process to determine if types of problems referred by teachers to TATs were similar to those referred to Schoolbased Teams (the traditional referral-to-placement sequence). This information would support or refute the use of reduction in the numbers of students referred for special education services as an indicator of prereferral intervention effectiveness. The second goal of the study was to find out whether problem re-conceptualization had taken place as a result of the TAT process.

To achieve these goals, exploratory analyses were conducted on referrals to School-based Teams, referrals to Teacher Assistance Teams, and problem descriptions arrived at during the TAT process. The goals of the analyses were expressed as the following null hypotheses.

Hypothesis 1: There will be no significant difference between problem descriptions made by referring teachers in referrals to School-based Teams and those made by teachers in referrals to Teacher Assistance Teams.

Hypothesis 2: There will be no significant difference between problem descriptions made by referring teachers and problem descriptions arrived at by consensus at Teacher Assistance Team meetings.

Two major findings emerged from the data analysis.

First, it was discovered that referrals to School-based

Teams differed from referrals to Teacher Assistance Teams in both nature and number of descriptors used by teachers describing students. In nature, SBT referrals emphasized academic weaknesses whereas TAT referrals emphasized behavioural weaknesses. In number, TAT referrals contained a greater volume of student weaknesses than did SBT referrals. These differences contradicted the first hypothesis and indicated that significant differences do exist between referrals to School-based Teams and to Teacher Assistance Teams.

The second major finding was that the nature of TAT referrals and subsequent problem descriptions did not differ. The analyses uncovered no significant differences between the configuration of weaknesses within TAT1 referrals and TAT2 problem descriptions. There was a difference in the number of descriptors in TAT referrals and TAT problem descriptions. Subsequent problem descriptions

narrowed in on a smaller set of student problems. However, this difference in number was a function of the design of the TAT process and would only have been significant had it not occurred. Therefore, it must be concluded that the data analysis supported the second hypothesis: namely, that no significant differences existed between problem descriptions in TAT referrals and in TAT meeting records.

Additional information also emerged from an exploration of the data. This information specified the type of weaknesses and strengths that occurred with highest and lowest frequencies within SBT and TAT referrals and problem descriptions and consistant groupings of weaknesses within both SBT and TAT referrals. SBT problem descriptions were characterized by a preponderance of weaknesses in reading comprehension, mathematics, and ESL; and strengths in attitude, motivation, oral language, and work habits. problem descriptions were dominated by weaknesses classed as attention, work habits, disruptive, and family/ home factors, with strengths in attitude, reading, reasoning, general behaviour, and mathematics. TAT2 problem descriptions reported weaknesses chiefly in attention, assignment completion, and disruptive behaviour. strengths were included in TAT2 problem descriptions. data revealed student characteristics that were of primary concern to teachers in the study.

Limitations of the Study

Given that this study was an exploratory research effort by design, it is important to note limitations to the generalizability of the results. Two factors limit the generalizability of this study with regard to the first hypothesis. They are: (a) failure to establish congruence between School-based Team referrals and Teacher Assistance Team referrals; and (b) absence of uniformity among School-based Team referrals.

The first hypothesis questioned the assumption made by other researchers that problems referred to (and solved by) TATs were, in fact, similar to those presented in the traditional referral-to-placement sequence (in this case, School-based Teams). To make comparisons between TAT and SBT referrals within schools, SBT referrals were collected from each of the project schools for the previous year. Two steps were taken to determine the representativeness of the SBT referrals for the period of the study (1988-89 school year). First, 1987-88 referrals to SBTs at schools C, and D were to be collected as indicators of what 1988-89 SBT referrals might have been. Next, SBT referrals at a non-TEAMS school, School E, were collected for both the 1987-88 and 1988-89 school years as a cross-check to confirm the equivalence of 1987-88 SBT referrals from Schools C and D and 1988-89 TAT referrals.

However, there was insufficient data on which to base comparisons between schools and data analysis did not

provide any means of making more than very superficial comparisons between the groups of SBT referrals. This was largely due to the small numbers of SBT referrals provided by some of the participating schools. Schools A and B did not keep any records of SBT referrals for the 1987-88 school year. Schools C and D provided 5 and 26 referrals respectively, whereas the control, school E, contributed 67 referrals. As a result, the SBT referrals were considered as a collective indication of SBT referral patterns in those five schools.

Queries into the reason for the paucity of SBT referrals from schools A, B, and C revealed considerable variation in SBT referral procedures. Students came to the attention of the SBT in one of three ways: review of the entire class list by the SBT; requests by members of the SBT or other district staff; or referral by classroom teachers. Only when referrals were made by classroom teachers, was the SBT provided with the problem description used in this study. As a result of these practices, in schools A, B, and C, some referrals to SBT were made without accompanying referral forms.

The combined effect of these factors was a failure to establish the representativeness of School-based Team in relation to Teacher Assistance Teams. For this reason, it is not possible to report definitively that the TAT referrals were representative of what referrals to SBT would have been in the four pilot schools during the 1988-89

school year.

No such threats to generalizability exist for the second hypothesis. The main caution regarding these results is that the numbers of referrals (n = 30) and problem descriptions (n = 27) were small. The limited numbers preclude the generalizability of the findings of the study to settings beyond the Vancouver School District with its mixed ethnic ackground. Extension to other Canadian or American schools, because of differences in the indigenous ethnic groups, should be viewed cautiously.

Discussion

The object of this study was to conduct a preliminary exploration of two variables that have been used by other researchers to evaluate the effectiveness of prereferral intervention procedures. One variable, reduction in special education referral rates, has been used by Chalfant, Pysh, and Moultrie (1979); Graden, Casey, and Bonstrom (1985), MacDonald (1987) and Hayek (1987) to indicate the success of prereferral intervention procedures. Another variable, problem clarification, was used by Bergan and Tombari (1976) and Pugach and Johnson (1988) to indicate that successful consultation has occurred.

Reduction in Special Education Referral Rates

The findings of this study do not encourage the use of the reduction in special education referral rates as a valid indicator of outcome effectiveness for prereferral interventions. A distinct difference was found between the

types of problems teachers referred for peer consultation and the types of problems teachers referred to the traditional special education referral-to-placement sequence. Even given the limitations of this study, there remains a distinction between the nature of problems referred to SBTs and TATs. Several factors, singly or in combination, may be responsible for this distinction. These factors may exist at a surface, procedural level or at a deeper, systemic level.

At a surface level, the difference between SBT and TAT referrals may simply be an artifact of the referral forms used, since the questions on TAT referral forms are less prescriptive than on SBT referral forms. Similarly, the difference may be a result of the lack of standardization in the SBT referral process. The fact that SBT referrals are initiated by sources other than the classoom teacher, and are not always accompanied by referral forms may influence the nature of reported problem descriptions.

At a deeper level, the difference between SBT and TAT referrals may reflect other factors influencing teacher's referral decisions and may actually indicate a unique function being served by the TAT. The low incidence of behavioural descriptors in SBT referrals may be due to teachers' inability to describe "bothersome" behaviours in a manner in which they feel comfortable presenting to an expert group. It may also be due to institutional constraints or external pressures such as those identified

by Christenson, Algozzine and Ysseldyke (1982). Christenson et al. found that teachers' decisions to refer were influenced by: (a) estimates of the competence of the professional receiving the referral and the extent to which the referral recipient encouraged or discouraged referrals; (b) the length of time between referral and service; (c) absence or shortage of services; (d) time and paperwork involved; (e) attitudes toward special education; and (f) external pressures such as threat of litigation or influence of advocacy groups. As a result of these factors, the TAT may be serving as an alternative to the SBT and may be receiving problems that teachers have previously withheld from SBTs and is not, in fact, be a preliminary step in the traditional special education referral-to-placement sequence.

The nature of problems referred to TATs is particularly interesting in view of Hayek's (1987) finding that 67% of all teachers surveyed felt that time and paperwork deterred them from referring problems to TATs. The fact that teachers overcame these deterrents to complete the TAT referral suggests that the problems they were reporting were of considerable concern to them. This, coupled with the apparent difference in the nature of referrals made to TATs, also supports the supposition that TATs serve a unique function. It may be that TATs are perceived as non-threatening avenues in which to discuss problems. Or it may be that referring teachers perceive their peers as the only

real "experts" available to help them with their concerns about students with behaviour problems. In any case, the findings regarding the differing nature of referrals to TATs and SBTs raise questions as to whether they are addressing similar problems. For these reasons, reduction in special education referrals may not be caused by TAT success, despite possible correlation with TAT success.

Problem Identification

The findings of this study do not challenge the use of problem identification as an indicator of TAT effectiveness. However, they do raise questions about the validity Pugach and Johnson's (1988) interpretation of the concept of problem identification, i.e. problem reconceptualization. Successful problem identification was directly correlated with consultation outcome success by Bergan and Tombari (1967). In their study of the effectiveness of peer consultation in a prereferral context, Pugach and Johnson extended problem identification to problem reconceptualization. Evidence of problem reconceptualization, they implied, showed that teachers' diagnostic skill levels had increased. "Teachers became more specific in their understandings of the problems they encountered and shifted to discussing them in a manner which made problems potentially more solvable" (p.14). change in the skill level of the referring teacher is regarded as an outcome of successful consultation (Mannino & Shore, 1975), problem reconceptualization appears to be a

desirable outcome. However, although problem identification occurred in all of the TAT referrals, problem reconceptualization, as reported by Pugach and Johnson, was not evident in this study.

Using the constant comparative method (Glaser & Strauss, 1967), Pugach and Johnson (1988) sorted each of 70 problems into a single category. The problems were classified when referred, and reexamined after consultation had taken place. Pugach and Johnson reported that 91% of the problems shifted to new categories after the problem clarification phase of the procedure was completed. result was not replicated in the present study. Perhaps the major reason behind the failure to find problem reconceptualization was that the present study recognized amd examined multiple attributes of problems, rather than mapping a problem into one of a limited set of single attributes, as in Pugach and Johnson's procedure. recognition of multiple attributes of problems is consistent with the findings of Chalfant and Pysh (1981) who reported that children referred to TATs averaged nearly five problem areas per child. The results of the present study identified a background of each student's problem areas and revealed that the problems took on a narrower focus, rather than a new focus, after the problem clarification phase of the procedure was completed.

This finding challenges the use of problem reconceptualization as an indicator of prereferral efficacy.

It directs attention to assumptions underlying problem clarification. Pugach and Johnson's (1988) study assumed that teachers need to be educated in the problem clarification process: that their skills as diagnosticians are in need of improvement. However, this may not be the Gerber and Semmel (1984) suggested that teachers' descriptions of student problems should be treated as "evaluative conclusions, not suspicions" (p. 141). Their rationale explains the "rubber stamp" process (decried by Ysseldyke, 1983) as confirmation of the teachers' diagnostic skill. If this is indeed the case, it is important to the success of the problem identification phase of the TAT process to make explicit the assumption that the referring teacher is competent to diagnose the student's problem. The focus of the process should then be to identify achievable objectives as intervention targets. Therefore, in line with the results of this study, it can be concluded that the use of problem reconceptualization (Pugach & Johnson, 1988), as an effectiveness indicator is inappropriate. Instead, the expression of achievable objectives - problem identification (Bergan & Tombari, 1967), is a more valid indicator of consultation success in the TAT process.

Additional Findings

Specific findings regarding the nature of weaknesses that occurred with highest frequency in TAT referrals and problem descriptions are important in view of the research by Ysseldyke, Thurlow, Graden, Wesson, and Deno (1983).

their five-year research project on psycho-educational assessment and decision making, they found that "different teachers may refer different kinds of students because different kinds of behaviours bother them" (p. 80). Since the decision to refer usually leads to special class placement (Ysseldyke, et al. 1983), it is important to know what types of problems are most bothersome to teachers. The results of this study indicate that weaknesses in attention, assignment completion, and disruption were the most persistant concerns expressed by teachers. Since TATs could be most supportive in these areas, it follows that staff development in schools with TATs should address these problems.

<u>Implications</u>

Given that the overall objective of the Teacher

Assistance Team process is to increase teachers' abilities
to accommodate children with learning and behaviour problems
in the regular classroom, the findings of this study have
implications both for the continuing development of Project

TEAMS and for future evaluation of project.

Implications for the School District

1. The fact that teachers describe different aspects of problems to their peers (TATs) than to experts (SBTs) suggests that behavioural concerns may not be adequately dealt with at the School-based (system) level. This concern could be examined by a task force composed of classroom teachers and district personnel.

Referrals to School-based Teams should follow a standard procedure. A general procedure for using TATs as a prereferral is to require all teachers to refer learning and behaviour concerns first to TATs. Problems that persist despite the TAT consultation can then be passed to Schoolbased Teams. The wholesale adoption of such a process could be considered too abrupt for such a school district as large as Vancouver. If so, attention should be given to an adaptation to the use of TATs in prereferral procedures which has been generated by staff at school D (see Appendix 1: School-based Team Consultative Process). This procedure consists of a clearly defined series of steps which teachers can follow to deal with learning or behaviour problems. The teacher may direct the consultation to procede through the Teacher Assistance Team or through the Learning Assistance Centre (the traditional avenue for referrals to School-based Teams in Vancouver schools). If the problem is not resolved at either of these points, it reaches the School-based Team and should be accompanied with documentation of the Referral forms used in the initial interventions attempted. stages of the process, Teacher Assistance Team Request for Assistance or Learning Assistance Centre Request for Assistance, are very similar to the TAT referral forms used in this study. As a result, the forms are less likely to prescribe the problem description than were the SBT referral forms used in this study.

Implications for Teacher Education

- 1. The fact that teachers narrowed their problem focus rather than redirecting it in the problem identification phase of the TAT process should be considered during future TAT training. The assumption that teachers have good diagnostic skills could be made explicit. The focus during problem identification should be to target measurable objectives for intervention.
 - 2. The concerns which teachers expressed most frequently in TAT and SBT referrals should guide future staff development plans. The high frequency of concerns about reading comprehension arising from SBT referrals indicates a need for inservice training in strategies to improve reading comprehension. The high frequency of concerns about attention in TAT referrals indicates a need for inservice training in methods for improving on-task behaviour. This could include techniques of applied behaviour analysis.

Implications for Future Evaluation of Project TEAMS

- 1. Reduction in referrals to special education should not be used as a primary indicator of the effectiveness of TATs. Such measures focus only on system-level improvement. Evaluation which examines teacher or student centered outcomes (e.g. teacher satisfaction and intervention success) would give a more complete picture of the effect that TATs have on teachers and students.
- 2. Problem identification should be used as an indicator of the effectiveness of TATs. Successful problem

identification should be defined as the targetting of measurable academic or behavioural objectives.

3. Evaluation of TAT effectiveness could also use measures to discover if: (a) changes have occurred in teacher's skill levels; (b) changes have occurred in students' behaviours; and (c) service delivery within the system has been improved. (A method to gauge improvement in teachers' skill levels is to measure their tolerance for children with learning and behaviour problems before and after consultation. Changes in students' behaviours can be assessed through academic measures or records of frequency of targetted behaviours before and after interventions. Improvement in service delivery throughout the system can be evaluated through surveys of teacher satisfaction with the TAT process and through calculations of numbers of students receiving direct or indirect service as a result of the Teacher Assistance Teams.)

Recommendations for Future Research

The strong academic loading of concerns expressed on referrals to School-based Teams should be more fully explored. Research should examine issues such as:

- (a) What are teachers' expectations of the outcomes of referrals to SBT?
- (b) What environmental or institutional constraints may influence teachers' referrals to SBTs?
- (c) Which characteristics of the referral form may prefigure problem descriptions?

- (d) What comparisons can be made between the severity of problems referred to TATs and SBTs?
- (e) In the case of problems that are not resolved in prereferral procedures, what comparisons can be made between problem descriptions made by referring teachers and those made by psychometricians?
- (f) What differences exist between outcomes of TAT meetings that follow a highly structured format and those that follow a loose or unstructured format?
 - (g) What types of interventions are most frequently chosen by teachers? Which are most successful?
 - (h) What are teachers' perceptions of the results of TAT meetings?

A hoped-for outcome of such a research schedule would be an increased focus on the teacher and student-centered aspects of the TAT process. Resulting information could lead to improvements to the TAT process that remove the teacher frustrations reported by Hayek (1987). expertise of the classroom teacher.

Summary

This was a preliminary study of a pilot project in its first year and, therefore, was designed to be exploratory, not evaluative. Other studies cited here have stablished the success of the TAT model as a cost effective method of handling special education concerns. Other studies have

also established teacher satisfaction with the TAT model. However, this study has had a different focus and the results have been encouraging. They have provided information of use to the continuing development of the project by uncovering teachers' concerns with behaviour. They have also provided guidance for eventual evaluation of the project effectiveness. In addition, the study probed assumptions underlying the TAT model and resulted in two important implications; (a) that teachers have greater than expected skills as diagnosticians; and (b) that TATs may be serving a different purpose than was originally intended. Further exploration of these implications may result in improvements to the Teacher Assistance Team model that make it even more attractive to teachers. Such improvements are worth pursuing because Teacher Assistance Teams have the potential to effect long term change in the provision of support to classroom teachers who have children with learning and behaviour problems.

References .

- Adelson, B. (1984). When novices surpass experts; The difficulty of a task may increase with expertise.

 Journal of Experimental Psychology: Learning.

 Memory.and Cognition, 10(3), 483-495.
- Algozzine, B., Christenson, & Ysseldyke, J. (1982).

 Probabilities associated with the referral to placement process, <u>Teacher Education And Special Education</u>, 5(1), 19-23.
- Algozzine, B., & Ysseldyke, J. (1981). Special education services for normal students: Better safe than sorry. Exceptional Children, 48(3), 238-242.
- Algozzine, B., & Ysseldyke, J. (1983). An analysis of the incidence of special class placement: The masses are burgeoning. <u>Journal of Special Education</u>, <u>17</u>(2), 141-148.
- Bergan, J., & Tombari, M. (1976). Consultant skill and efficiency and the implementation and outcomes of consultation. <u>Journal of School Psychology</u>, <u>14</u>(1), 3-14.
- Bicklen, D., & Zollers, N. (1986). The focus of advocacy in the LD field, <u>Journal of Learning Disabilities</u>. 19(10), 579-586.
- Carter, J., & Sugai, G. (1989). Survey on pre-referral practices: Responses from state departments of education. Exceptional Children, 53(4), 238-302.
- Chalfant, J., Pysh, M., & Moultrie, R. (1979). Teacher assistance teams: A model for within-building problem solving. <u>Learning Disabilities Quarterly</u>, 2, 85-86.
- Chalfant, J., & Pysh, M. (1981, November). Teacher assistance teams: A model for within-building problem solving. Counterpoint, 1(3), 21-23.
- Chi, M.T., Feltovich, P.J., & Glaser, R. (1981).

 Categorization and representation of physics
 problems by experts and novices. Cognitive Science,
 5(2), 121-152.
- Christenson, S., Algozzine, B. & Ysseldyke, J.(1982).
 Institutional constraints and external pressures influencing referral decisions. <u>Psychology in the Schools</u>, 19, 341-345.

- Friend, M. (1984). Consultation skills for resource teachers. Learning Disability Quarterly, 7, 246-250.
- Galagan, J. (1985). Psychological testing: Turn out the lights, the party's over. Exceptional Children, 52(3), 288-299.
- Gerber, M., & Semmel, M. (1984). Teacher as imperfect test: Reconceptualizing the referral process. <u>Educational</u> <u>Psychologist</u>, 19(3), 137-148.
- Gerber, M., & Semmel, M. (1985). The microeconomics of referral and reintegration: A paradigm for evaluation of special education. <u>Studies in Educational Evaluation</u>, <u>11</u>, 13-29.
- Gickling, E. & Thompson, V. (1985). A personal view of curriculum-based assessment. Exceptional Children, 52(3), 205-218.
- Glaser, B., & Strauss, A. (1967). <u>The discovery of grounded theory: Strategies for qualitative research.</u>
 Chicago: Aldine.
- Graden, J. L., Casey, A., & Christenson, S. L. (9185).
 Implementing a prereferral intervention system: Part
 I. The model. <u>Exceptional Children</u>, <u>51</u>(5), 377384.
- Graden, J., Casey, A. & Bonstrom, O. (1985). Implementing a prereferral intervention system: Part II. The data. Exceptional Children, 51(6) 487-496.
- Gresham, F., & Kendall, G. (1987). School consultation research: Methodological critique and future research directions, <u>School Psychology Review</u>, <u>16</u>, 306-316.
- Hayek, R. (1987). The Teacher Assistance Team: A prereferral support system. <u>Focus on Exceptional</u> <u>Children</u>, 20(1), 1-7.
- Hubert, L. J., & Baker, F.B. (1976). Data analysis by single-link and complete-link hierarchical clustering. <u>Journal of Educational Statistics</u>, 1(2), 87-111.
- Idol, L. (1988). Rationale and guidelines for establishing special education consultation programs. <u>Remedial and Special Education</u>, 9, 48-58.
- Idol, L. & West, F. (1987). Consultation in special education: Part II. Training and practice. <u>Journal of Learning Disabilities</u>, 20(8), 474-494.

- Idol-Maestas, L. (1983). <u>Special educator's consultation</u> <u>handbook</u>. Rockville, MD: Aspen.
- Johnson, S.C. (1967). Hierarchical clustering schemes. Psychometrika, 32(3), 241-254.
- MacDonald, M. (1987). Project MERGE. Counterpoint, 1(3) 17.
- McIntyre, R. M., & Blushfield, R.K. (1980). A nearest-centroid technique for evaluating the minimum-variance clustering procedure. <u>Multivariate</u>
 <u>Behavioral Research</u>, <u>15</u>, 225-238.
- Mannino, F., & Shore, M. (1975). The effects of consultation: A review of empirical studies.

 American Journal of Community Psychology, 13, 1-21.
- Medway, F. (1982). School consultation research: Past trends and future directions. <u>Professional Psychology</u>, <u>13</u>, 422-430.
- Paolucci-Whitcomb, P., & Nevin, A. (1985). Preparing consulting teachers through a collaborative approach between university faculty and field-based consulting teachers. <u>Teacher Education and Special Education</u>, 8(3), 132-143.
- Pugach, M., & Johnson, L. (1988, April). Peer collaboration: Enhancing teacher problem-solving capabilities for students at risk. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.
- Schoenfeld, A. H., & Herrmann (1982). Problem perception and knowledge structure in expert and novice mathematical problem solvers. <u>Journal of Experimental Psychology</u>: <u>Learning</u>, <u>Memory</u>, & <u>Cognition</u>, 8(5), 484-494.
- Schram, L., & Semmel, M. (1984). <u>Problem-solving teams in California: Appropriate responses by school site staff to students who are difficult to teach and manage</u>. Santa Barbara: University of California, Graduate School of Education (ERIC Document Reproduction Service No. ED 255 485).
- West, F., & Cannon, G. (1988). Essential collaborative consultation competencies for regular and special educators. <u>Journal of Learning Disabilities</u>, <u>21</u>(1), 56-63.

- West, F., & Idol, L., (1987). School consultation (Part 1):
 An interdisciplinary perspective on theory, models,
 and research. <u>Journal of Learning Disabilities</u>,
 20(7) 388-406.
- Will, M., (1986). Educating students with learning problems:
 A shared responsibility. Exceptional Children,
 52(5), 411-415.
- Wood, S., (undated). Project MERGE: Maximizing remediation within general education: A discussion and review of an alternative service delivery model for mildly handicapped students. Olympia School District Special Services.
- Ysseldyke, J., (1983). Current practices in making psychoeducational decisions about learning disabled students. <u>Journal of Learning Disabilities</u>, <u>16</u>(4), 226-232.
- Ysseldyke, J., Algozzine, B., Shinn, M. & McGue, M., (1982). Similarities and differences between underachievers and students classified as learning disabled. <u>Journal of Special Education</u>, <u>16</u>, 73-85.
- Ysseldyke, J., Thurlow, M., Graden, J., Wesson, C Deno, S., & Algozzine, B. (1983). Generalizations from five years research on assessment and decision making.

 Exceptional Educational Quarterly, 4(1), 75-84.

APPENDIX A

SAMPLE REFERRAL TO SCHOOL-BASED TEAM



Learning Assistance Centre

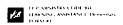
86

Date:

YEAR/MONTH/DAY

Strengths	Nee	<u>.</u>
Strangths	Nee	vrte
Please check and comment		
OTHER CONCERNS: (a) Health (b) Social	(c) Emotional	(d) Behaviour
Spelling	Math	
Comprehension	Written	••
Decoding	Oral _	
Reading:	Language:	
Functional Levels/Assessment Data:		
Student's standing in area of concern as compared to rest	of the class:	
Teacher's immediate goal for referring student to L.A.C.		
3. CLASSROOM TEACHER INFORMATION		
Grades Repeated:	Pertinent Health Information:	
Language in Home:	Parents Informed:	Yes No
First Language:	Family Constellation:	
Phone: B.D.		Age:
Address:	Teacher:	
	Handedness (L/R)	
Name:	Grade	Sex (M/F

EARNING STYLE: This child seems to learn best when these teaching strategies are used in the classroom (i.e. materials, technique, strategies).



APPENDIX B

SAMPLE REFERRAL TO TEACHER ASSISTANCE TEAM

TAT Request for Assistance

Student's Name:		Date:	
Age:	Birth Date	Grade	Sex:
Problem(s): in order of	Please state concern	What would you like to be able to do th does not presently	at s/he
Pupil Strens	gths	Pupil Weaknesses	
-			
Background i	information and/o	r test data:	
Stategies th	nat have been tri	ed already?	

Please use the back if you need more room:

APPENDIX C

SAMPLE TEACHER ASSISTANCE TEAM MEETING RECORD

ACTION FORM

STUDENT'S NAME:	DATE:
REFERRING TEACHER:	GRADE:
TAT MEMBERS PRESENT:	
BRAINSTORMING: The list is on the other side.	
Reached by consensus:	***************************************
Problem(s) stated:	
Specific Objective(s):	
Selected Interventions (Immediate Strategies):	·
Long Term Strategies (If any):	
Falley Ha	
Follow-Up:	
Ву -	
·	
Notes:	

APPENDIX D DESCRIPTION OF CATEGORIES

Descriptions of Categories

- 1. Work habits: This category included all references to the process of student work. Descriptors such as "disorganized work", "poor" or "messy work habits", and "organizational skills" indicated difficulties (x); descriptors such as "good worker" indicated strength (+) in this category.
- 2. Attention: This category included all references to students' attending behaviour. Descriptors such as "off-task", "daydreams", "low attention", "poor listening skills", and "needs encouragement to complete work" indicated difficulties; descriptors such as "works independently" indicated strength.
- 3. Assignment completion: This category included all references to the product of student work. Descriptors such as "incomplete assignments" indicated difficulties; descriptors such as "good worker" indicated strength in and "completes assignments" marked this category.
- 4. Attendance: This category included all references to students' physical presence in school. Descriptors such as "school absenteeism", "late to school", indicated difficulties; descriptors such as "reliable", and "punctual" indicated strength in this category.
- 5. General behaviour: This category included nonspecific indications of behaviour. Descriptors such as such as "behaviour problems" indicated weaknesses; descriptors such as "well-behaved" indicated strength.
- 6. Disruptive: This category included descriptions of students' disrupting the progress of working or learning within the class. Descriptors such as "disrupts", "interrupts", "bothers other students", indicated difficulties; descriptors such as "pleasant in class" indicated strength.
- 7. Attention seeking: This category included descriptions indicating student demands for attention. Descriptors such as "attention seeking", "shouts/calls/acts out" indicated difficulties; descriptors such as "quiet" indicated strength.
- 8. Verbally abusive: This category included descriptions indicating students' use of socially appropriate language. Descriptors such as "verbally abusive", "rude or inappropriate language", and "puts others down" indicated difficulties in this category.

- 9. Physically aggressive: Difficulties in this category were indicated by descriptors such as "aggressive behaviour" and "punching, hitting kids".
- 10. Social problems: This category included non-specific indications of the existence of social problems. Descriptors such as "problems with other children" indicated difficulty in the category; descriptors such as "strong social skills" indicated strength.
- 11. Working cooperatively: This category included descriptions of students' demonstrated ability to work in groups. Descriptors such as "doesn't work cooperatively", "not accepting of others", "socialization problems", and "doesn't participate orally" indicated difficulties; descriptors such as "very social", "contributes to group discussions", and "works well in groups" indicated strength.
- 12. Friends: This category included descriptions of students' friendships with other children. Descriptors such as "isolates himself", "doesn't participate", and "few friends" indicated difficulties; descriptors such as "friendly", and "children want to be his friends" indicated strength.
- 13. Respect for authority: This category included descriptions of student's relations with adults. Descriptors such as "no respect for authority/ school/ property" indicated difficulties; descriptors such as "relates well to teacher", and "works well one-to-one"indicated strength.
- 14. Following instructions: This category included description of students' compliance with school rules or teacher directions. Descriptors such as "doesn't follow rules/ instructions/ directions", and "disobeys" indicated difficulties in this category.
- 15. Responsibility: This category included references to student responsibility. Descriptors such as "lack of responsibility" indicated difficulties; descriptors such as "responsible" indicated strength.
- 16. Hyperactivity: This category included descriptions of students' level of physical activity. Descriptors such as "hyperactive", "Ritalin", and "doesn't stay in seat/ sit still" indicated difficulties.

- 17. Self-control: This category included descriptions of level of impulse control in students' behaviour. Descriptors such as "lack of self-control", "inappropriate behaviour", and indicated difficulties; descriptors such as "no longer indulges in inappropriate behaviour" indicated strength.
- 18. School/social experience: The descriptors "lacks school/social experience" indicated difficulty in this category.
- 19. Emotional problems: This category included non-specific indications of students' emotional health. Descriptors such as "requires emotional support", "emotional problems" indicated difficulty; descriptors such as "is generally happy" indicated strength.
- 20. Immature behaviour: This category included references to students' levels of maturity. Descriptors such as "immature behaviour", indicated difficulties; descriptors such as "leadership qualities" and "mature for his age" indicated strength.
- 21. Self-concept: This category included descriptions of students' self-concept. Descriptors such as "low self-concept/confidence" indicated difficulties (x); descriptors such as "confident" indicated strength.
- 22. Trustworthiness: This category included descriptors such as "deceitful", "cheating", "mischievous", and "stealing", indicating difficulties.
- 23. Attitude: This category included descriptions of students' affect or attitudes. Descriptors such as "poor attitude" or "negative attitude", indicated difficulties (x); descriptors such as "good attitude", "willing", "enthusiastic", "tries hard to please", "cheerful". "good-natured", "cooperative", and "agreeable to suggestion" indicated strength.
- 24. Tension: This category included descriptors such as "sensitivity to criticism" and "easily frustrated", indicating difficulties; descriptors such as "accepts assistance" indicated strength.
- 25. Motivation: This category included descriptions of students' level of motivation. Descriptors such as "low motivation" indicated difficulty; descriptors such as "highly motivated", "wants to do better", and "tries hard" indicated strength in the category.

- 26. Volatility: This category included descriptions of students' emotional stability. Descriptors such as "emotionally unstable", "volatile", "angry", and "quick temper" indicate difficulties in this category.
- 27. Family/home: This category included descriptions of students' family or home life. Descriptors such as "single parent", "separation", "home problems" indicated difficulties; descriptors such as "parents are supportive" indicated strength.
- 28. Health: This category included descriptions of students' physical health. Descriptors such as "poor health", "listless", "tired", "nutrition problems" indicated difficulties; descriptors such as "good athlete" and "energetic" indicated strength.
- 29. English as a Second Language (ESL): This category included any indication that students had a non-English first language.
- 30. Language difficulties: This category included non-specific descriptions of students as having problems in the area of language. Descriptors such as "weakness in /poor language skills" marked difficulty in the category.
- 31. Oral language: This category included descriptions of students' facility with oral language. Descriptors such as "difficulties verbalizing" and "oral language difficulties", indicated difficulties; descriptors such as "speaks well", "strong verbal skills" and "expresses himself well" indicated strength.
- 32. Vocabulary: This category included descriptions of students' facility with vocabulary. Descriptors such as "vocabulary difficulties" indicated difficulties; descriptors such as "large vocabulary" indicated strength.
- 33. Listening comprehension: This category included descriptions of students' ability to understand or follow spoken language. Descriptors such as "comprehension difficulties" and "doesn't understand verbal directions" indicated difficulties in the category.
- 34. Reading: This category included non-specific descriptions of students' reading ability. Descriptors such as "low reading scores", indicated difficulties; descriptors such as "higher than grade level reading scores", and "reads advanced material" indicated strength.

- 35. Reading comprehension: This category included descriptions of students' reading comprehension ability. Descriptors such as "low reading comprehension scores" and "doesn't follow written directions" indicated difficulties in the category.
- 36. Decoding skill: This category included descriptions of students' decoding ability. Descriptors such as "decoding problems", "phonics/letter/word recognition problems", "poor sight word vocabulary", "oral reading difficulty", indicated difficulties; descriptors such as "good decoding skills" indicated strength.
- 37. Written expression: This category included descriptions of students' writing skills. Descriptors such as "writing difficulties", "written expression difficulties", indicated difficulties; descriptors such as "writes well", and "logical paragraph writing" indicated strength.
- 38. Sentence construction: This category included descriptions of students' ability to construct written sentences.
- 39. Spelling: This category included descriptions of students' spelling ability. Descriptors such as "spelling difficulties" indicated difficulties; descriptors such as "spells well" indicated strength.
- 40. Handwriting: This category included descriptions of students' handwriting or printing ability. Descriptors such as "handwriting/printing difficulties", "reversals", indicated difficulties; descriptors such as "neat printer" indicated strength.
- 41. Fine motor: This category included descriptions of students' fine motor development. Descriptors such as "fine motor difficulties", "poor pencil/crayon control", indicated difficulties; descriptors such as "good motor skills" indicated strength.
- 42. Mathematics: This category included descriptions of students' ability to do math. Descriptors such as "low math scores", "doesn't know numbers", indicated difficulties; descriptors such as "good grasp of numbers" indicated strength.
- 43. Reasoning: This category included descriptions of students' intellectual ability or potential. Descriptors such as "slow reasoning" and "high level thinking problems" indicated difficulties; descriptors such as "very bright", "clear thinking", "above average IQ", and "ability exceeds output" indicated strength.

- 44. Memory: This category included descriptions of students' memory ability. Descriptors such as "poor memory" and "short term memory problems", indicated difficulties; descriptors such as "good visual memory", and "can memorize" indicated strength.
- 45. Academic skills: This category included non-specific descriptions of students' academic skills. Descriptors such as "low academic skills/work", "low Stanford/CTBS/CTAB scores" "indicated difficulties; descriptors such as "high Stanford/CTBS scores", and "well above grade level academically" indicated strength.
- 46. Language arts: This category included non-specific descriptions of students' achievement in language arts. Descriptors such as "language arts difficulties" and "poor literacy" indicated difficulty in the category.

APPENDIX E: ILLUSTRATION OF SCORING

		D14
		99
	TAT Request for As	cistano
	X = Weakness	
Studen	DITUIN DELE	0 = Strength
	· • • • • • • • • • • • • • • • • • • •	would you like the child able to do that s/he
	1.17 0000	not presently do? $X \rightarrow 11$
		independently & cooperative
2. Cack	11 starry ting 1x > 2.	jout constant interruption
3. Freque	nrig interrupting Inch	rease on task behaviour
4. Behavi	olur is only	
lmm	xture (x > 20.	
Pupil Stre	ngths 0 > 23. Pupil	Weaknesses
	disposition Par	on-task behaviorn x 72.
- likes to	draw 0 + 43. Page	attending behaviour
- Seems to	have more potential	1 11 1: Liminaress
thanis .L	own academically Const	antly trying to impress
	.) OIN	ers with inappropriate
	0 > 23	haviour X > 17.
Background	information and/or test	data:
1001	is a "handful" at hon	ne. Parents are very
Jordan	is a handry at non	ne tarents are very
concer	ned, the problem of	rentroned here have
been	WITH HIM SINCE III	2. Attention
		6. Disruptive 11. Working cooperatively
	that have been tried alrea	17. Self-control
	ncentive program	20. Immature behaviour 23. Attitude
Seating	with positive role in ome responsibilities to him	43. Reasoning
Talking t	o Jordan privately about	ut his expectations +
Positive,	reinforcement, for world	t well done or a good
Building o	on his part in art b	t well done or a good by having him use his talent e room: in group projects
Please use	the back if you need more	e room: " group projects

APPENDIX F:
RULES FOR SCORING

Rules for Scoring

- 1. If the descriptors "high/low Stanford/CTBS/CTAB scores" are entered after the headings "math", "reading", "spelling", or "language", then the category which corresponds to the heading is marked (rather than the general category "academic skills").
- 2. The descriptor "doesn't follow directions" can appear in categories 14. Follows Instructions, 33. E.S.L., or 35. Reading. If the descriptor is included in a referral which indicates E.S.L. problems but no reading or behaviour problems, then 33. E.S.L. is marked. If no indication of reading or E.S.L. competence is given, then 14. Follows Instructions becomes the default category.
- 3. Category 36., Decoding, covers all ways of 'cracking the code' and includes no comprehension. Decoding is "word calling" and includes phonics, sound/symbol associations, word attack or word recognition skills.
- 4. Category 46. Language Arts is subordinate to 45. Academic Skills, and superordinate to 34. Reading, 31. Oral Language, 33. Listening Comprehension, and 37. Written Expression.
- 5. Re categories 34. Reading and 35. Reading Comprehension: if a general reading skill deficit is indicated once (e.g. "low reading scores") and then another descriptor specifies comprehension problems, both categories are marked.
- Do not record:
 - (a) scores within 0.5 grade equivalents of grade level;
 - (b) "improving"
 - (c) "average";
 - (d) "satisfactory";
 - (e) "fair":
 - (f) stanines 4,5,or 6;
 - (g) descriptors qualified by "some" (e.g. "some errors" or "shows some potential".
- 7. Do record: "satisfactory at grade 2 level" (when placement is at grade 3) as a deficit.

APPENDIX G
GROUPING OF CATEGORIES

Grouping of Categories

The 46 categories generated through the constant comparative method (Glaser & Strauss, 1967) were grouped into three major classes (Behaviour, External Factors, and Academic) and into nine categories (P1 - P9, corresponding to those identified by Pugach and Johnson, 1988) in accordance with the following outline.

Class A. Behaviour

Pugach & Johnson Category:	Corresponding Descriptive Category:
P1. Off-task/Distractible	2. Attention
P2. Poor self concept	21. Self-concept
P3. Poor motivation/attitude	15. Responsibility19. Emotional problems23. Attitude24. Tension25. Motivation26. Volatility
P4. Act out/Hostile/ disruptive	5. Behaviour problems 6. Disruptive 9. Physically aggressive 10. Social problems 13. Respect for authority 14. Follows instructions 16. Hyperactivity 17. Self-control 20. Immature behaviour 22. Trustworthiness
P5. Talk out	 Attention seeking Verbally abusive
P6. Poor work completion	 Work habits Assignment completion Attendance Working cooperatively

Class B. Academic

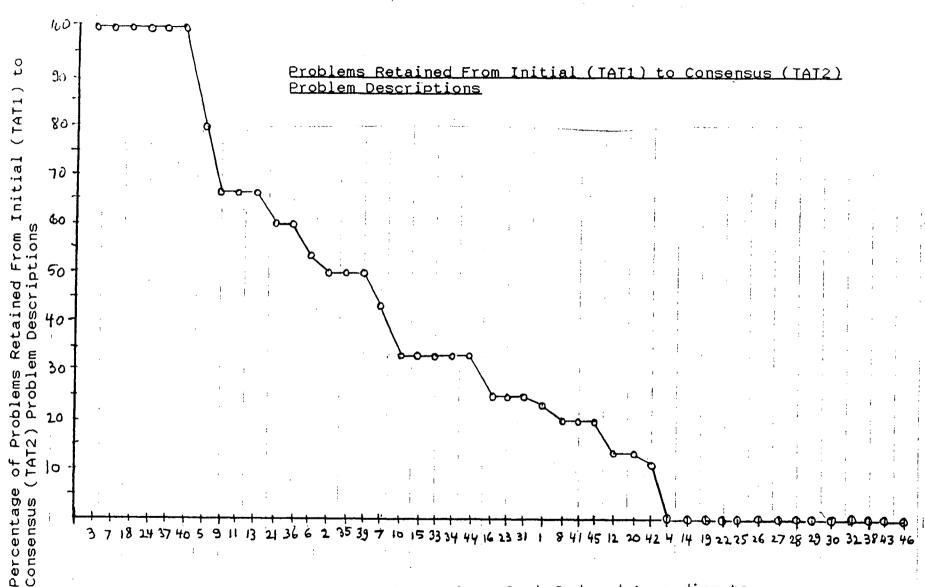
Pugach & Johnson Category:	Corresponding Descriptive Category:
P7. Low General Achievement	30. Language difficulties34. Reading45. Academic skills46. Language arts
P8. Specific skill deficit	29. E. S. L. 31. Oral language 32. Vocabulary 33. Listening comprehension 35. Reading comprehension 36. Decoding 37. Written expression 38. Sentence construction 39. Spelling 40. Handwriting 41. Fine motor 42. Math

Class C: External Factors

Pugach & Johnson Category:		erresponding escriptive Category:
		Friends
	18.	School/social
experience		
	27.	Family/home
	28.	Health
	43.	Reasoning
	44.	Memory

APPENDIX H:

PERCENTAGE OF PROBLEMS RETAINED FROM TAT1 TO TAT2



Category Description Numbers Rank Ordered According to Percentage of Problems Retained From TAT1 to TAT2 Descriptions

APPENDIX I SCHOOL-BASED TEAM CONSULTATIVE PROCESS

SOUTHLANDS ELEMENTARY SCHOOL 108

SCHOOL BASED TEAM CONSULTATIVE PROCESS

Sti	tudent Name: D	ate:	
Bir	irthdate:T	eacher:	
Gr	rade:	•	
*			
			<u>Date</u>
1.	. Classroom teacher identifies the problem.	-	
2.	Classroom teacher completes the Teacher Request for Assistance Form. (Blue) OR:		
3.	Classroom teacher completes the Learning Request for Assistance Form. (Green		
4.	. Classroom teacher contacts parent/guardi referral: contact is recorded. (White		
5.	. All student contacts/observations to be re	ecorded.	
6.	. Classroom teacher and Learning Assistance Meet: Learning Assistance Center Acout by L.A.C. teacher. (Green) OR:		
7.	Teacher Assistance Team meets: T.A.T. Chaout and monitors T.A.T. Action Form.	• .	
8.	. Copy of Action Form goes to classroom t	eacher.	
9.	School Based Team Request for Const can be initiated by classroom teacher, L.A. Teacher Assistance Team. L.A.C. teacher f	C. teacher, or	nk)
10	0. School Based Team meets and fills out Team Action Form: copies to classroom teacher. (Pink)		

TECCHER CISSISTANCE TECHNICE REQUEST FOR CISSISTANCE

109 (Blue)

(To be completed by classroom teacher)

Student Name:	Date:	
Birthdate:		
Teacher:	Grade:	
1. Problem(s) : State in order of concern.		
What would you like the child to be able to do t	hat he/she does not presently do?	
2. Student Strengths:		
Weaknesses:		
3. Background Information and/or te	est data:	
4. Strategies that have been tried alr	ready:	
5. Contact with parent(s)/guardian(s) Comments:): Date:	
Classroom Teacher Signatu	Jre:	

TEACHER ASSISTANCE TEAM: ACTION FORM

(To be completed by T.A.T. Chairperson)

(Blue)

Student Name:	Date:
Referring Teacher:	Grade:
Teacher Assistance Team Members: (please	e sign)
1. Regimeterming: to be listed on the oth	or side of this page
1. Brainstorming: to be listed on the other	er side of this page.
2. Reached by consensus:	
3. Problem(s) stated:	
4. Specific objective(s):	
•	
5. Selected Interventions (Immediate	Stratagies):
). Selected interventions (immediate	Sti ategies).
6. Long Term Strategies:	
o. bong for m Strategies.	
7. Follow-up:	
By:	
Time:	
Notes:	
Report to Parent(s)/guardian(s):	Date:
Comments:	
T.A.T. Chairperson Signat	uro.
1.A.1. Chan per son Signat	WI V

LEGANING CISSISTANCE CENTER REQUEST FOR CISSISTANCE (To be completed by classroom teacher)

111 (Green)

Student Name:	Date:
Birthdate:	Age:
Teacher:	Grade:
1. Problem(s): State in order of concern	n .
What would you like the child to be able to do	that he/she does not presently do?
2. Student Strengths:	
Weaknesses:	
3. Background Information and/or	r test data:
Strategies that have been tried	already:
Type of assistance requested:	
i. Further testing: ii. Classroom based support: (spec	
6. Contact with parent(s)/guardian Comments:	n(s): Date:
Classroom Tea	cher Signature:

LEGRAINS ASSISTANCE CENTER (To be completed by L.A.C. teacher)

112 (Green)

Student Name:			Date:		
Classroom Teacher:			Grade:		
• -			ther testing []:	Consultation [
ACTION TAKEN 1. Testing:	Date(s)	Test	Results		
2. Consultation	Date(s)	· .	<u>lssue(s)</u>	·	
3. Classroom Ba	ased Suppor	<u>Date(</u>	s) Type o	of Support	
4. Follow-up:	By: Date:_		; Time		
5. Report to Pa					

REQUEST FOR SCHOOL BOSED TEOM (pink) CONSULTOTION (To be completed by L.A.C. teacher)

Student Name:	Date:
Classroom Teacher:	Grade:
1. Problem(s): State in order of	fconcern
2. Summary of Testing Res Date Test	sults: Results
3. Remedial actions and in	terventions implemented:
4 Specific request for Scho	ool Based Team involvement:
	Teacher Signature:

SCHOOL BOSED TEAM ACTION FORM : I

(To be completed by School Based Team: copies to classroom (Pink) teacher and L.A.C. teacher.)

Student Name:	_ Date:
Classroom Teacher:	_ Grade:
ACTION TO BE TAKEN BY: 1. Learning Assistance Teacher:	
2. Principal:	
3. School Physician/Nurse:	
4. Psychologist:	
5. Speech & Language Pathologist:	·
6. Area Counsellor:	· · · · · · · · · · · · · · · · · · ·
7. District Integrative Support Teacher:	
8 Native Indian Support Worker:	
Poviow Data:	

SCHOOL BOSED TEOM OCTION FORM: 2

(To be completed by School Based Team: copies to classroom teacher and L.A.C. teacher.)

Student Name:	Date:
Classroom Teacher:	Grade:
ACTION TO BE TAKEN BY: 1. Learning Assistance Teacher:	
2. Principal:	· · · · · · · · · · · · · · · · · · ·
3. School Physician/Nurse:	
4. Psychologist:	
5. Speech & Language Pathologist:	
6. Area Counsellor:	
7. Native Indian Support Worker:	
8. District Integrative Support Teac	cher:
Ta	

CLOSING OF FILE

Student Name:	Date:	
Classroom teacher:	Grade:	
1. Summary of actions/intervent	ions:	
	·	
	•	
	·	
•		
,		
2. Review date:	•	

L.A.C. Teacher Signature:

RECORD OF CONTACTS

Student Name:	Sc	hool Year: 19/19
Grade:	Classroom Teacher:	
Date	Comments	Signature