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Upon a hill they stood : experience and change in adventure group school counseling.

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UPON A HILL THEY STOOD;
EXPERIENCE AND CHANGE IN
ADVENTURE GROUP SCHOOL COUNSELING

A Dissertation Presented

by

Scott Jules Davidson

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the Degree of

DOCTOR OF EDUCATION

May 1987

Education

Scott Jules Davidson



1987

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This is for Yashi,
for Yonaton,
for Anya Mae,
and always for Camille.

her daddy (age 32 3/4): "Did my little girl have a nice day?"

my little girl (age 2 3/4): "Yes, I went to work."

her daddy: "Oh really, what kind of work?"

my little girl: "Pink work."

her daddy: "And what did you do at your pink work?"

my little girl: "I chased away the monsters!"

her daddy: "So you're a psychologist too."

ACKNOWLEDGEMENTS

To my wife, Camille: For all that I have accomplished, you contributed an equal measure. For all that I have neglected, you had offered sound direction and patient encouragement. For all that lies ahead, I pray you will let me share your loving company and wise counsel. I love you. I admire you. I thank you.

To our children: Too often during this project you were acknowledged last, no longer. Yashi, you made us parents first and continue to remake us, as parents, everyday - you have the power to change the world. Yonaton, your big eyes drink in life and then return it like a fountain of youth. Anya Mae, you are a pretty little girl with a backbone straight and strong. Daddy thanks you all for being who you are.

To the rest of our family: my parents, Sonya and Edward Davidson, and parents-in-law, Elana and Leonard Gealt; my brother and sister-in-law, Jeffrey and Gale Davidson, and nieces, Ariel and Rachel Davidson; my brother, Stuart Davidson, and brother-in-law, Avi Gealt; my grandmother, Rose Westelman, and grandparents-in-law, Milly and Phil Sahl; my great aunts, Sadie Gold and Mary Ubogy, and; all our departed relations - you are an important part of this work because you are an important part of me.

To my dissertation committee: Ena Vazquez-Nuttall, my chairperson, who, above all my teachers, taught me how to formulate a question and find its answers; Simon Keochakian, who always kept his keen eye turned to the clarity and economy of my language, and; Frank Rife, my outside reader, who read this work with exactitude, enthusiasm and scholarship - for these contributions, and many more, I am thankful.

To my colleagues at the field site: Firstly, Lynn Sternfels, my gifted co-counselor throughout the treatment phase of this project, and then; Bill Bentley, an earnest naturalist; Bob LaFlamme, an adventuresome teacher; Richard Tyler and Lynda Dunn, administrators committed to seeing qualitative improvements in the lives of students, and; Sylvia Leuteman, the person that holds Special Services together - without your active participation, adventure group school counseling would have remained just another one of my wild and wonderful ideas. Thank you.

To my typist, Joyce Cronk: I thank you for your abundant good humor; the high quality of your work; and your commitment to seeing this project to its completion.

To my other teachers and friends: Fred Bergerson, Ben Burnett, Linda Edwards, David Yarkin, David Tiemann, Yossi Siegel, the Mador and Shapira families - at certain and special moments in my life you are always there.

A B S T R A C T

Upon A Hill They Stood; Experience and Change
in Adventure Group School Counseling

(May 1987)

Scott Jules Davidson, B.A. Whittier College
M. Ed., Ed. D., University of Massachusetts

Directed by: Professor Ena Vazquez-Nuttall

This study articulates the theoretical structure of an adventure group school counseling treatment program: under stressful conditions of controlled risk (adventure), participants develop into a team (group) that positively supports each member's experiential learning of socially significant skills (school), individual psychosocial growth, and specific behavior changes (counseling). As such, adventure group school counseling is an orderly incorporation of four key therapeutic processes: outdoor adventure, team development, experiential learning, and clinical debriefing. The closely related educational and counseling practices of Outward Bound and Project Adventure are examined in depth.

This study then analyzes the design, implementation, and evaluation of an adventure group school counseling program in wilderness search and rescue team training. By design, the program presented few financial burdens and an acceptable level of physical risk while providing direct psychological

support services to underachieving adolescents in a Northeastern public high school. An experimental treatment group of 10 students identified by the school faculty as underachievers participated in 10 weekly treatment sessions that consisted of team building initiatives, wilderness search and rescue skills training, and group processing (clinical debriefing). Employing a before and after control group experimental design, significant findings ($p < .05$) were indicated in the areas of increased self-esteem, complexity of social reasoning and internal locus of control as measured by the Tennessee Self Concept Scale, Selman Interpersonal Awareness Scale, and Locus of Control in Three Achievement Domains, respectively. Qualitative changes in the treatment groups' stage of team development were found. Changes in school comportment and attendance were nonsignificant.

Finally, this study addresses some of the problems in the field research of adventure group school counseling. Supplementary treatment and control groups provided additional data to measure important field site-specific and intrasubject variables. Recommendations for the future practice and research of adventure group school counseling are provided.

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C H A P T E R I

INTRODUCTION

Chapter One begins with the Problem Statement/Purpose of Research. The specific problems this research addresses and the solutions it proposes are presented in that section. The next section, Definitions of Terms, defines the essential terms of this research, i.e., adventure group school counseling. Then, the specific hypotheses are stated. The General Methods of Study section surveys the experimental sampling procedure, instrumentation, research design, and statistics used in this study. The Statement of Significance section identifies the three goals of this field research study. Chapter One concludes with an overview of the study through brief summaries of each chapter.

Problem Statement/Purpose of Research

The narrow purpose of this study is to review the design, implementation, and evaluation of a particular adventure group school counseling program at a Northeastern public high school. Its larger purpose is to advance the body of knowledge concerned with adventure group school counseling and its field research.

The field site for this study is a comprehensive three

-year secondary school that serves a largely blue collar community in Northern coastal New England. This public high school offers college preparatory, business, general, and vocational programming along with a full range of interscholastic athletics, extra-curricular activities, and student organizations. During the field research (Spring, 1983) there were 635 secondary school students at the site. Of the previous year's graduating class, 37% continued on to some form of post secondary school, 48% entered the work force, 10% joined the Armed Forces, and 5% pursued other interests.

Adolescence is, historically, a time of change and adjustment. Because the adolescent spends the largest part of his/her day in school, public high schools have long recognized the need to provide supportive psychological services to its adolescent students. At the field site, such services run along a continuum from informal teacher contact to guidance counseling to formal evaluation by the Pupil Evaluation Team (P.E.T.) to additional (special) psychological services in the least restrictive environment.

Yet the record indicates that from September, 1981 to January, 1983, this school staff held only 12 Pupil Evaluation Team meetings for (non-special education) students in which the initial referral question identified any psychological or behavioral concerns! These 12 referrals were evenly divided among truancy, academic failure, and emotional difficulties as

the primary presenting problem.

Surely this public high school has its fair share of troubled adolescent students. As the school psychologist for this community's school system, the investigator had consulted with the high school staff about students with motivational and school related difficulties; social adjustment problems and lack of peer acceptance; problematic relationships within the family of origin; teenage pregnancy, delinquency, and substance abuse. As the seriousness of the problems increase so do the limitations of the teachers, administrators and guidance counselors to meet the students' needs. But the referrals to special services and the initiation of the Pupil Evaluation Team process had not been forthcoming. What was the problem?

The problem was found in the, presumably, smooth flowing continuum of psychological services. In actuality, there was considerable discontinuity between the available inhouse services of teachers and guidance counselors and the "paper chase" to the Pupil Evaluation Team. Subsequently, as the psychological need of the student escalates, the response time for service delivery grew longer! Such a delivery system for psychological services was particularly unresponsive to the needs of an adolescent with adjustment problems as s/he moved in and out of "crises". For a young person who was experiencing the rough spots of adolescence and had exhausted the resources of her/his teachers and guidance

counselors, the Pupil Evaluation Team stood as a cumbersome and intimidating means to meet her/his heightened psychological need. For those secondary school students without the long-standing psychological problems that would have elicited a Pupil Evaluation Team and the appropriate special education services earlier in their school career, initiation of the Pupil Evaluation Team process at this high school was an option rarely chosen.

As such, there was an identifiable gap in the delivery and provision of psychological services at this public high school. Even when the inertia was broken and a Pupil Evaluation Team convened, there remained a limited range of appropriate psychological services available inhouse. Often the Pupil Evaluation Team referred the student to services outside the school. There was a pressing need to design a direct psychological service procedure and program to fill this gap between student need and the delivery of psychological services, i.e., an intermediate level psychological intervention program, a place for the student who needs more intensive psychological services than guidance counseling via a delivery system more accessible than the Pupil Evaluation Team process.

During the academic year of 1982-3 the investigator established a program of adventure group school counseling at the field site. This program stood in the middle ground between special and regular education. It offered a coherent

counseling program to both behaviorally handicapped special needs students referred by their Pupil Evaluation Team and regular education students with significant school adjustment problems as identified by the school faculty at the field site.

The purpose of this study is to investigate the effectiveness of adventure group school counseling in filling the void in the psychological service delivery system of a Northeastern public high school with a program that, hopefully, significantly improved the psychosocial well being and school behavior of "underachieving" and "underserved" adolescents. The study will articulate a conceptual model for adventure group school counseling (Chapter II) and the procedures for applying that model to meet the particular needs of a Northeastern public high school (Chapter III). An adventure group school counseling program in wilderness search and rescue team training will be reviewed (Chapter III) and its specific psychological and behavioral outcomes will be analyzed through a comprehensive research design (Chapter IV). Finally, recommendations for the future research and practice of adventure group school counseling will be presented (Chapter V).

Definitions of Terms

Each of the four words in the term, adventure group school counseling, is important in the term's definition. Each word, in order of its appearance in the term, is

represented in the following definition: (a) Under stressful conditions of controlled risk; (b) students/counselees will develop into a "team" that positively supports; (c) the experiential learning of socially significant skills; as well as (d) individual and specific areas of psychosocial growth and behavior change by each student/counselee.

Part (a) of the definition identifies the adventure component of adventure group school counseling as the strategic application of therapeutic levels of stress. By carefully controlling the counselees exposure to heightened physical, emotional, intellectual, and social risk the adventure experience can be used therapeutically. In the second point, (b), the process of team development is recognized as an essential distinguishing attribute of adventure group school counseling. The investigator has articulated a five stage theory of team development and identified it as a significant therapeutic factor in the effectiveness of adventure group school counseling. Part (c) focuses on the school related or educational component of adventure group school counseling. The word "school" is included in the term not only because adventure group school counseling happens in a school setting but also because adventure group school counseling follows a school format, i.e., counselees are students learning specific and useful skills. This practical application of adventure group school counseling in a public secondary school is built

around an experiential curriculum of wilderness search and rescue team training. In the process of their training as a wilderness search and rescue team the students/counselees develop technical skills (orienteering, first-aid and outdoor survival) and interpersonal skills (communication, problem-solving and leadership) that are both personally meaningful and socially valuable.

The final point, (d), in the definition is indicative of the commitment in adventure group school counseling to measurable counseling outcomes. Six null hypotheses predict changes in the student/counselee involved in adventure group school counseling. For one 45 minute period each week, two separate groups of ten high school students went outdoors for an adventure experience in wilderness search and rescue team training. Their adventure experience was a carefully integrated activity that challenged them physically, intellectually, emotionally, and socially. Each adventure experience was followed with a clinical debriefing time during which the counselors and counselees clinically processed their interpersonal and intrapersonal responses to the adventure experience. The integrative process of adventure experiences and clinical debriefing was designed to crack through adolescent defensiveness and help each individual understand and change herself and her behaviors while learning to serve her community as a responsible and skilled member of a wilderness search and rescue team.

The field site is in Northern New England near extensive, protected wilderness areas. New Englanders have a long history of environmental concern and involvement. They enjoy and respect the outdoors during every season of the year. Unfortunately, there are innumerable ways to get lost in the wilderness and risk overexposure. Individuals trained in wilderness search and rescue are a valuable resource to the community. As such, wilderness search and rescue team training provided a solid base in reality for three distinct foci during the clinical group processing time: teambuilding, skill-mastering, and public service.

Specific Hypotheses

Adventure group school counseling, as presented here, serves three functions. It represents a coherent and practical school counseling model applied in a Northeastern public high school as a wilderness search and rescue team training program. It is also the focus of the investigator's doctoral research. As such, the participating students at the field site are adventure group school counselees, wilderness search and rescue team trainees, and experimental subjects. Six null hypotheses were derived to test individual and specific areas of psychosocial growth and behavior change by the counselees/trainees/subjects.

Hypothesis I

Participation in adventure group school counseling will not significantly change the self-concept of the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by the pre-/post- administration of the Tennessee Self-Concept Scale.

Hypothesis II

Participation in adventure group school counseling will not significantly change the complexity of the experimental treatment subjects' reasoning about interpersonal relationships, in contrast to the experimental control subjects, as indicated by pre-/post- administrations of the Selman Interpersonal Awareness Scale.

Hypothesis III

Participation in adventure group school counseling will not significantly change the level of the experimental treatment subjects' internal locus of control, in contrast to the experimental control subjects, as indicated by pre-/post- administrations of the Locus of Control in Three Achievement Domains.

Hypothesis IV

Participation in adventure group school counseling will not significantly change school absenteeism and tardiness by the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school attendance records.

Hypothesis V

Participation in adventure group school counseling will not significantly change the occurrence of punishable misbehavior in school by the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school detention records.

Hypothesis VI

Participation in adventure group school counseling will not qualitatively change the two treatment groups' stage of team development as indicated by the subjects' Feedback Sheets, Team Compact, and the investigator's Field Notes.

General Methods of Study

Experimental Sampling Procedure and Treatment Referral

Process

As an effort to bridge the gap in the psychological service delivery system at the field site, the investigator established an informal referral process to the adventure group school counseling program in wilderness search and rescue team training.

On January 17, 1983 the investigator addressed the school faculty. He announced the imminent establishment of a new, intermediate level psychological intervention program in their school and he briefly described the conceptual model

for adventure group school counseling. After answering questions he solicited referrals from the teachers, guidance counselors, and administrators. He encouraged them to consider all the students who might benefit from such a program, not just the handful of "notorious" students, but the other students who are often overlooked because they cope with their troubles in less obvious ways. It took less than five minutes for the individual faculty members to finish recording their referrals on separate sheets. Later the names were collated and 177 different students were referred! The high school's faculty felt that more than 25 percent of their student population could benefit from the adventure group school counseling program.

This research happened in the field, not in the laboratory. Two important methodological problems had to be overcome: (a) assignment to groups and (b) identification of adequate comparison groups. Because the field site was a public high school in session and the treatment program was designed as an intermediate level, direct, psychological support service the referred students/subjects could only participate during one of the free periods in their previously established school schedules. The class schedule of each referred student was examined and her/his free periods recorded on a large chart. Then, the one period in the week that had the largest number of referred students in study hall and did not conflict with the adventure counselors

already busy schedules became the established meeting time of the adventure group school counseling program in wilderness search and rescue team training. There were 28 students, referred by the school's faculty who had study hall during the newly established meeting time of the adventure group school counseling, wilderness search and rescue team training program. This group of 28 students/subjects was stratified according to gender and school grade and then 10 experimental treatment and 10 experimental control subjects were randomly selected. Two supplementary comparison groups were selected from the general student population and the special education (sub)population at the field site (see Design, below).

Instrumentation

Three psychometric instruments of personality and two unobtrusive measures of inschool behavior were administered pre- and post- intervention and comprise a summative evaluation of the first five hypotheses. A qualitative analysis of written formative data measures the findings relevant to the sixth hypothesis.

Tennessee Self-Concept Scale.

The first hypothesis identified the Tennessee Self-Concept Scale (T.S.C.S.) as the instrument to measure changes in self-concept. The T.S.C.S. is widely recognized, well standardized, and multidimensional in its description of the self-concept. The self-concept is a critical personality

variable. It represents a person's own, internal frame of reference. In a very real sense, one's concept of one's self often has a more profound influence over one's behavior than one's actual self. William Fitts, (1972), the author of the T.S.C.S., prepared a separate monograph reviewing the data demonstrating this fundamental interaction between self-concept and behavior. Null hypothesis notwithstanding, this investigator predicted that an adventure group school counseling intervention would impact the treatment subjects' self-concepts positively, by raising the total level of self-esteem through the clinical processing of experiences of meaningful personal challenges in the context of a cooperative and supportive team.

Locus of Control in Three Achievement Domains.

The Locus of Control in Three Achievement Domains (L.O.C.I.T.A.D.) was chosen because it structurally complements the T.S.C.S. by distinguishing specific subscales and, thereby, presenting a multidimensional description of locus of control orientations. Its three subscales; intellectual, social, and personal are particularly pertinent to this study. Again, the null hypothesis notwithstanding, the investigator expected adventure group school counseling to make clearer the connection between a person's behavior and its consequences in the domains of intellectual, social and personal achievement. The carefully integrated adventure

experiences and clinical debriefing provided immediate and direct intellectual, social, and physical/personal feedback sufficient to effect a significant movement towards greater confidence, determination, assertiveness, and goal-directedness, (i.e., more internal loci of control) in the undermotivated, underachieving, underserved public high students participating in this adventure group school counseling program of wilderness search and rescue team training.

Selman Interpersonal Awareness Scale.

The Selman Interpersonal Awareness Scale (S.I.A.S.) measures the maturity of the subject's social reasoning across a five stage theory of social development. The measurement instrument, the Interpersonal Awareness Interview, begins by posing a "dilemma" and then solicits qualitative responses to 16 open-ended questions. The written responses of the treatment subjects in this study were sent to Harvard University for individual item analyses by a trained scorer. Quantitative scores were obtained for a Global Score of Interpersonal Understanding Maturity and five subscores: Trust/Reciprocity, Conflict Resolution, Group Cohesion, Decision Making/Organization and Leadership. Group trust, group cohesion, leadership, conflict resolution, and decision-making are persistent problem areas during adolescence. Adventure group school counseling poses "adventurous" conflicts that

can only be resolved through the exercise of judicious leadership and decision-making in the context of a trusting and cohesive group. Through these experiences and the clinical group processing during debriefing, adventure group school counseling is expected to raise the general level of maturity in the treatment subjects' understanding of interpersonal relations.

Unobtrusive Measures.

Two unobtrusive measures were used to investigate changes in out-of-treatment, inschool behaviors. The school attendance and detention records of experimental treatment and control group subjects were examined and analyzed for any change during the intervention period. It was anticipated that the lure of adventure, alone, would be strong enough to improve the attendance records of adventure group school counselees, and the positive behaviors learned in the group would significantly improve their behavior in the larger, school setting.

Qualitative Data

Finally, the team compact and feedback sheets represented self-report instruments used by the students and addressed in the group during the clinical debriefing period following adventure activities. They were formative by nature, and together with the investigator's field notes, provided an ongoing evaluation of changes in subjects' developing team

identification. The wilderness search and rescue team training program was, by definition, designed to facilitate the development of ten underachieving adolescents into a cohesive team. Teamwork provides the necessary cooperative and supportive context for individual psychosocial growth and behavior change.

Design

The sample of 28 referred students in study halls at the established adventure group school counseling program meeting time was stratified according to gender and school grade. Then, two groups of ten students/subjects were randomly selected. One group served as the experimental treatment group and the other was the experimental control group. Assignment to experimental or control group was a random process. One design configuration for part of this study is a before and after control group design (see Figure 1.1).

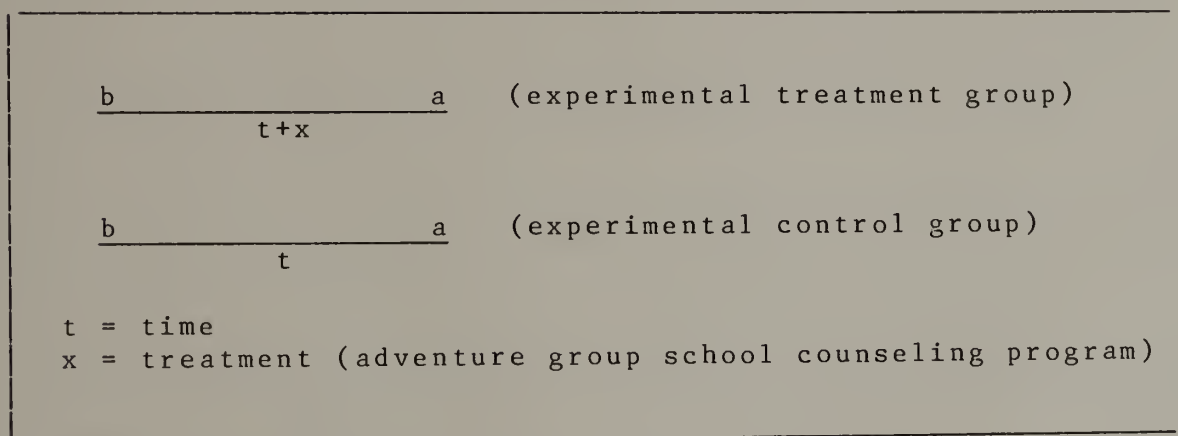


Figure 1.1 Before And After Control Group Design

This experimental design controls the internal validity problems of history and maturation. Similarly, the testing effect, that is, learning from the testing process itself, is held constant for both groups.

The before and after control group experimental design reflects standard research practice. This study enlarged the design by including two supplementary groups, a contrast treatment group and a comparison control group. The contrast treatment group contained seven special education students already identified as behaviorally handicapped by their Pupil Evaluation Team and three high status students handpicked by the investigator. Adventure group school counseling was the only "special" psychological service provided to these students at the field site. This group of students, seven of whom had already been identified as behaviorally handicapped and in need of psychological services, was neither randomly selected nor matched to the experimental or control groups along any specific variables (i.e., age or sex). This group represented a significantly different population. Still, the contrast treatment group was subjected to similar pre- and posttesting and treatment conditions as the experimental treatment group. Data from the two treatment groups (experimental and contrast) were subjected to a qualitative analysis measuring team development (Hypothesis VI) as well as an additional ex post facto, nonexperimental study measuring the differential interaction between adventure

group school counseling and specific intrasubject variables (the HiLo Studies).

A comparison control group was included in this design as a crosscheck of the proposed informal referral process. The comparison control group was a random sample of the general student population. Analysis and interpretation of the data collected at pretesting provide insight into some of the (dis)similarities between the field site's student population as a whole and one of its subsets, the referred student population. Pretest data from the two control groups (experimental and comparison) were analyzed in order to measure the possible effects of the open faculty referral process in this study (the Control Group Study).

Statistics

Two statistical formats were used to analyze the quantitative data. A basic two-sample t test procedure that is two-tailed and conducted at the 5 percent level of significance measured the degree of change predicted on the first five hypotheses. One of the supplementary studies required a one-way analysis of variance procedure to control certain intrasubject variables and measure the possibilities of differential treatment effects (the HiLo Studies). The qualitative data relevant to the sixth hypothesis were coded manually and examined with instruments of qualitative data

analysis adapted by the investigator to the specific needs of this study.

Statement of Significance

The significance of this study is threefold:

1. The articulation of a theoretical structure of adventure group school counseling.
2. The design, implementation, and evaluation of an adventure group school counseling program that poses few financial burdens, acceptable levels of physical risk, and meets the needs of a public high school for intermediate level direct psychological services.
3. The identification and amelioration of some of the problems involved in the field research of adventure group school counseling.

Organization Of This Dissertation

The first chapter introduces the purpose, definitions, general methods, and significance of the study. The overall organization, plan, and content of the study is summarized.

Chapter Two, Literature Review, examines the educational and counseling antecedents of adventure group school counseling. In the process of articulating a more fully developed conceptual model of adventure group school counseling the relevant literature is reviewed. Chapter Two

concludes with an analysis of the similarities and differences between Outward Bound, Project Adventure and adventure group school counseling.

Chapter Three describes the study's methodology. The research hypotheses are presented and then the procedures employed in selecting the study population, instrumentation, research design, and statistics are examined in detail. A program narrative comprehensively describes the experimental intervention's ten treatment sessions.

In Chapter Four, Results, the findings from each hypothesis and two ex post facto, nonexperimental supplementary studies are reported and displayed.

Chapter Five, Discussion, presents a summary discussion of the research findings, as well as their implications and limitations. The dissertation concludes with specific suggestions for future research and practice in adventure group school counseling.

C H A P T E R I I

LITERATURE REVIEW

Adventure group school counseling is an orderly incorporation of four key processes: outdoor adventure, team development, experiential learning, and clinical debriefing. Outdoor adventure is the medium through which team development and experiential learning provide, in turn, the content for clinical debriefing. These integrated and integrative processes are designed to promote substantive and significant psychosocial growth and behavior changes in the counselees. This chapter reviews the literature related to each of the four key processes. A conceptual model of adventure group school counseling is articulated in relation to the educational and counseling practices and programs of Outward Bound and Project Adventure.

Outdoor Adventure

Definition

One way to look at these two words, outdoor adventure, is as two words awaiting a third to become a more complete phrase: for example, education or program or leader. However they can stand independently when recognized as adjective and noun respectively. Whereupon, an outdoor adventure is a memorable experience that involves excitement, anticipation, unpredicatability, risk, and hard work in an elemental setting

beyond the walls of any institution or building. In the hands of a trained leader, like Buell (1983a), outdoor adventure is:

the process of encountering and solving, in an out-of-doors or simulated out-of-doors setting, exciting and daring physiological, psychological, and sociological challenges and stress which lead to personal and group awareness and growth. The process includes individual and group initiative and action, living and learning skills acquisition, and environmental awareness, understanding, and action. (p.10)

Rogers (1979), deferring to the Council of Outdoor Educators of Ontario, states four essential components of an outdoor adventure: environmental behavior, personal growth, technical skills, and safety. Finally, Metcalfe (1976) in his review of adventure programming identifies certain commonalities among the many programs he reviewed:

Most [adventure programs] have an aura of risk,... new experiences, skill development,...close interaction with people in small groups, [and]... the student must look at himself very objectively,... [in] an environment that cannot be ignored. (p.4)

Outward Bound

Outward Bound, Inc. is widely recognized as the fountainhead of outdoor adventure programming. The expression "outward bound" is a seafaring term that describes the moment a ship leaves its moorings and safe harbor, committing itself and crew to the unknown hazards of the open sea. Kurt Hahn, founder of the first Outward Bound school in 1941 at Aberdovey, Wales,

is credited with the most cogent articulation of the Outward Bound philosophy:

the aim,... is to impel people into value forming experiences,...[in order] to ensure the survival of these qualities: an enterprising curiosity and undefeatable spirit, tenacity in pursuit, readiness for sensible self-denial, and, above all, compassion. (Bacon, 1983, p. 99)

Hahn's vision has sustained the establishment of 32 schools in 17 countries across 5 continents. The programs vary significantly in the different schools, reflecting the unique cultural and physical environments of each school (Metcalf, 1976). For example: the African School is committed to civil service across tribal lines; the Malaysian School stresses interracial harmony; the Hurricane Island School in Maine adventures in the sea; and the Colorado School climbs mountains. However, there is a common structure to almost all Outward Bound courses. The four schools in the United States have formally agreed to present five basic elements in any standard Outward Bound course: a training phase, an expedition phase, a solo, a final expedition and a concluding phase (Bacon, 1983).

In order to enable students to manage the physical demands of the physical terrain, the training phase focuses on direct instruction in the areas of: physical fitness, outdoor knowledge and skills, Outward Bound's educational aims, specific school policies, environmental commitment, and expedition safety procedures. During the training phase initiative games help build the students' intra- and interpersonal confidence

levels. This is the period when instructors are most directly involved in teaching and supervision.

During the expedition phase the students participate in a series of outdoor adventure activities. Initially these trips into the wild environment - to sail or rock climb or wilderness travel - are with the original training class (called the patrol) and the instructor. Later, the groups become smaller; include students from different patrols; and have less instructor involvement. A goal of the expedition phase is to transfer as much responsibility to the students as safety requirements permit.

The solo is a time (usually about 72 hours) of isolation and introspection. Each student, with a minimum of food and equipment, is alone with his thoughts. Each student attends to all of her physical and emotional needs without human company or assistance. It is a time of silence and solitude. The solo can occur during the expedition phase as a contrasting experience.

The three-day final expedition involves small groups, generally without an instructor, negotiating safe travel to a predetermined destination. Each final expedition is individually designed by the instructors beforehand in accordance with the strengths, skills, and interests of that particular small group of students. En route, students might find service projects or habitat studies that need to be completed.

Traditionally, the concluding phase involves some marathon

activity (i.e., a run or cross-country ski). The marathon is a culminating challenge to the students' physical and psychological endurance. The last 24 hours is a time of relaxation, camaraderie, and review. Students and staff offer each other the feedback to bring the course to a satisfying conclusion (Bacon, 1983).

Project Adventure

In 1971 the Hamilton-Wenham, Massachusetts school system received a three-year grant to develop and implement a program that applied some of the educational concepts of Outward Bound to public school programs in physical education and academic subjects. Thus began Project Adventure. Upon completion of the initial grant period, Project Adventure was "validated" according to the the United States Office of Education (U.S.O.E.) criteria and designated a National Demonstration Site.

Project Adventure utilizes cooperative games, group problem solving exercises, and ropes course initiatives to teach physical education and academic curricula at the participating school sites. The Project Adventure method is designed to promote self-confidence, foster group interaction skills, and teach communication skills. Project Adventure curriculum provide student-to-student and student-to-teacher interactions that are nontraditional and, designed to provide meaningful opportunities to enhance these relationships.

The centerpiece of Project Adventure is its ropes course.

It might be mistaken for an elaborate obstacle course. In a wooded area near the school, the trees are woven with wire cable, logs, and ropes. The individual "obstacles" are divided into two categories according to their distance above terra firma, i.e., the "high" and the "low" obstacles or "elements". A graduated series of individual and/or group initiatives are designed around this rather spectacular collection of hardware.

Project Adventure identifies five "learning goals" that parallel earlier definitions of outdoor adventure activities. The five Project Adventure learning goals are:

To increase the participant's sense of personal confidence; to increase mutual support within a group; to develop an increased level of agility and physical coordination; to develop an increased joy in one's physical self and in being with others; to develop an increased familiarity and identification with the natural world. (Rohnke, 1977, p.p. 7 & 8)

Rohnke (1984) discarded the fifth "learning goal" in his most recent publication, Silver Bullets. It is the conjecture of this investigator that "familiarity and identification with the natural world" might no longer be a universal Project Adventure learning goal because Project Adventure has spent the last few years refining its model and adapting its curriculum to meet the needs of special populations (i.e., corporate executives, gifted and talented youngsters, the mentally and/or behaviorally ill) in a variety of institutional settings (i.e., hospitals, local mental health

clinics, corporate offices). Even the ropes course has been adapted to the indoors!

Outdoor Adventure in Adventure Group School Counseling

Adventure group school counseling applies the Outward Bound outdoor adventure model in an institutional setting (a public high school) as an intermediate level counseling program. Wilderness search and rescue is the outdoor adventure component of adventure group school counseling. Structurally, adventure group school counseling is patterned after Outward Bound. Wilderness search and rescue is taught experientially in graduated expeditionary steps further away from the school and instructor/counselor supervision.

Additionally, wilderness search and rescue reinforces adventure group school counseling's heavy focus on community service (another commonality with Outward Bound). In the context of becoming a wilderness search and rescue team, the fun and games serve a larger purpose and, thereby, take on a deeper meaning. Individual psychosocial growth and behavior change happen in the context of socially significant action. An adolescent's resistance to counseling is notorious. Accordingly, adventure group school counseling tries to engage her by utilizing the self-motivating power and the inherent rewards of community service in the context of a supportive team embarking on an exciting adventure.

Northern New England is blessed with vast areas of

wilderness, and the field site is located on the water. Even the long and harsh winters cannot keep many members of this community indoors. Skiing, snowmobiling, snowshoeing, trapping, winter camping and ice climbing are but a few of the winter sports that take these hearty people into the backwoods; and skating and icefishing bring them to the frozen waters. Being lost, hurt, or unprepared in the wilderness presents serious risks. Individuals trained in wilderness search and rescue are a valuable resource in this community.

Orienteering, outdoor survival skills, and first-aid comprise the "technical" core curriculum for a wilderness search and rescue team training program. While training as a wilderness search and rescue team, the teambuilding exercises, specific skill practices, and the clinical debriefings hold an important place in the training process. There is a need to integrate technical and interpersonal skills development. Before a group of people can effectively search for and safely rescue someone lost in the wilderness, they have to learn to work together effectively and cooperatively as a team. In adventure group school counseling; the experiential learning activities in wilderness search and rescue follow a skills development sequence that integrates technical and interpersonal skills acquisition. The experiential learning of wilderness search and rescue skills provides a solid reality base, a felt need,

and a commonsense rationale for the participants to work seriously and diligently at developing trust; improving communication, decision making, and problem solving skills; and behaving more responsibly at a personal and social level.

Conceptually, adventure group school counseling borrows most heavily from Outward Bound's intentional use of the stress in and of an elemental (outdoor) setting. The outdoors provides more than the obviously appropriate environment to learn wilderness search and rescue skills: it adds an element of therapeutic stress. Going outdoors in Northern New England during late Winter and early Spring is often physiologically and emotionally stressful. It is, typically, very cold, damp, and/or buggy. Though not as intense as a ropes course or as encompassing as the wilderness, harsh weather can be used therapeutically. Appropriately presented, an apparent hardship can be turned into an exciting challenge.

This program in adventure group school counseling, wilderness search and rescue team training, used the rugged outdoor environment of Northern New England in the early Spring as a natural milieu to foster specific psychological growth and behavior changes. With the cold wind blowing in your face, you learn quickly the value of cooperation, leadership, "followership", and respect for individual strengths and limitations. Under stressful conditions of controlled risk cause and effect relationships are thrown into sharp relief, the consequences of one's behavior are

less ambiguous, and awareness is heightened as options are narrowed (Goodman & Knapp, 1981; Kesselheim, 1976; Petrus, 1977; Rogers, 1979; Winn, 1982).

Even though they might be around the corner from their school, when students are brought outdoors they leave behind some of the "normal protections" of the school environment. In school every student has a given set of role expectations with an attendant level of social status and fairly rigid behavioral routines. Everyone "knows their place". However, outdoors, in a new setting, they are subjects in a different social order with less certain status and less clearly defined roles. They will have to negotiate an outdoor adventure as a team. This is an opportunity for each to rework his set of role expectations, enhance her social status, and enlarge his behavioral repertoire.

From the perspective of a behavioral scientist (Bernstein, 1972), the outdoors offers a primary shift from a social to a physical environment. In coping with threatening or noxious stimuli in the physical environment, the respondent can no longer depend on routine social habit. The more remote the outdoor setting, the slower the rate of change. The slower the rate of change, the higher the degree of predictability. The higher the degree of predictability, the more limited the ambiguity among stimuli. As such, the wilderness environment can offer a direct, immediate, and primary reinforcement schedule (i.e., pain, comfort, survival).

Outward Bound's solo wilderness experience can be a paradigm for the use of the outdoors as a powerful environment for behavior modification. As yet, the very conditions that make the wilderness an effective environment for new behaviors to be learned, repeated, and consistently reinforced, paradoxically provides very limited transfer or generalizability of learning. The stimulus conditions during the learning phase (in the wilderness) are radically dissimilar to those of the daily social life situation in which the newly learned behaviors are, ultimately, to be transferred and used. Adventure group school counseling, in turn, places primary focus on therapeutic group interaction (i.e., team development). The unique and universal elements of the social peer group enacted, as such, in the clarified (rarified?) setting of the outdoors, or on the ropes course or during the technical skills training are more directly or cogently transferable than the adventurous encounters with the physical (wilderness) environment.

Team Development

In adventure group school counseling, the social challenge before each student/counselee is to meet the social intellectual, physical, and emotional demands of wilderness search and rescue training as an accepted and accepting member of the team. In adventure group school counseling, the boundaries that separate technical and interpersonal skills

training, or team development and group counseling, are consistently and consciously crossed. The "team" concept is more than just an effective technique for wilderness search and rescue skills training. It is also the therapeutic context for group supported self-directed psychosocial behavior change. As such, team development is a valuable orienting construct to understand the psychological processes within and between the students/subjects in adventure group school counseling.

Theories of Therapy Group Development

Scholars of group dynamics have advanced many models of the developmental changes within therapy groups. Shambaugh (1978) and Forsyth (1983) have organized this literature into two basic approaches: recurring-phase models and sequential stage theories. Recurring-phase models identify dominant group issues or tasks that consistently resurface and demand group attention throughout the group's existence. Some recurring group issues are: task-oriented actions versus emotionally expressive behaviors; dependency versus hostility towards the leader; or fight versus flight reactions. Group development reflects the group's shifting positions in relation to such themes. Sequential-stage theorists, on the other hand, identify a specific, progressive order to the process of group development. Some scholars have identified two kinds of sequential-stage theories, linear-progressive theories and life cycle theories (Hartman, 1981 and

Issacharoff, 1981). In linear-progressive theories the group moves from a conflict stage to cohesive behavior and then towards the achievement of its stated goal. The life cycle theorists parallel group development with the human life cycle from birth (orientation) to death (termination).

Bell (1982) reviews small group development research and attributes theoretical inconclusiveness to inconsistent attention of such issues as duration of group, type of group task, or (dis)similarities between group memberships. The investigator, in turn, has articulated a model of group development suited to the task, duration, and membership of adventure group school counseling, wilderness search and rescue team training. Conceptualized as a logical sequence of hierarchically ordered stages, team development (in this study) stands squarely in the life cycle camp of sequential-stage theories.

Team Development, A Definition

The investigator defines team development as the process through which some previously less associated individuals become more positively interactive, involved, and identified with one another as members of a new, time-limited, particularistic social group. A team is particularistic insofar as it identifies itself by specific skills, values, and/or goals. A team is time-limited insofar as the formal group organization begins and ends within a clearly defined,

finite period of time. The developmental process in team development is defined as the progressive movement from interacting with to becoming involved with to finally, identifying with one's fellow teammates and a shared set of skills, values, and/or goals during the team's limited life-span.

In adventure group school counseling, social interaction, involvement, and identification occur interpersonally and experientially during the wilderness search and rescue team training process. The movement from individual interactions to interpersonal involvements to team identification is experienced internally, that is, psychologically, and manifested behaviorally, that is, in specific team developmental behaviors. This process parallels the pattern of choosing, prizing and acting in values formation (Rath, Harmin & Simon, 1964), and shares Kurt Hahn's critical emphasis on "value forming experiences". (Bacon, 1983).

Stages of Team Development

The investigator identifies five stages in an adventure group school counselee's developing membership in a wilderness search and rescue team: recruit, participant, member, teammate, and graduate. The first two stages of team development resemble the common and predictable behaviors of any individual entering a new social group. In this study the first stage is labelled "recruit" because each new group

member is, indeed, recruited into the group by the research/counseling staff (see Sample Populations section in Chapter I). As recruitees, they hold minimal commitment to the new group. Much of the group interaction can be categorized as "testing" behavior. Social relations typically fall along lines of friendships or acquaintanceships pre-established outside the group.

After a few group meetings, "recruitees" become more involved with one another and begin to establish important individual relationships with every other person in the group. A social constellation begins to emerge within the group. Each recruitee now acts as a "participant" in the growth of an increasingly complex social network.

Over time, the social system of the group grows more and more rigid. A group identity solidifies. Implicit and explicit rules, roles, and patterns of individual and group behavior become well defined. This represents the "membership" stage of team development.

The identification by group members of the value of personal change in the effort towards developing more effective ways to accomplish valued group goals impels the transition from the membership to the "teammate" stage. Teammates strongly identify with the team and, therefore, focus on group rather than personal success. Finally, as a time-limited arrangement, the dissolution of the formal organization is predetermined and anticipated by the team.

At this point, each teammate negotiates a shift to the "graduate" phase of team development. Here the graduates work through termination issues.

Team Development Stages and Group Counseling Goals

From the perspective of adventure group school counseling, the first two stages represent anticipated behaviors that must be addressed and overcome if a team is to develop. The final three stages stand as behavioral objectives towards which the counselor can guide the group. It is the responsibility of the adventure counselors to mitigate against the ill effects some behaviors might have upon team development and to facilitate movement towards the next higher stage of "teamwork". In adventure group school counseling, this is accomplished through counseling methods that are both action-oriented (i.e., team-building exercises and search and rescue initiatives) and talk-oriented (i.e., the clinical debriefing times and self-report instruments).

The five-stage sequence of team development has been coordinated with the general group counseling goals across the lifespan of the treatment program. Specific group counseling objectives in each treatment session are expressed physically (experienced) in teambuilding initiative games. The initiative games are designed to demonstrate in "action" what the debriefing later addresses in "talk". Six group counseling goals are targeted as appropriate for an adventure

group school counseling program in wilderness search and rescue team training: acquaintance, risk-taking/trust, communication, decision making/problem-solving, social responsibility, and personal responsibility. Figure 2.1 parallels the sequence of group counseling goals with the (anticipated) sequence of team development.

Experiential Learning

Direct experience holds a critical place and purpose in adventure group school counseling. The experiential learning process and the psychosocial and behavioral changes that can occur in adventure group school counseling are intimately connected. It is the direct and powerful experiences shared by adventure group school counselees during each treatment session that form the content of the therapeutic process. Experiential education, therefore, is another essential theoretical component of adventure group school counseling.

Experiential Education

Modern experiential educators identify John Dewey as their founding father. In Experience and Education, Dewey (1938) stated the first principle of all experiential educators, "all genuine education comes about through experience" (p. 16).

Within the discipline, experiential education is

consistently defined on either a theoretical or practical level. Both levels are relevant to adventure group school counseling. Conrad and Hedin (1982) in their large-scale impact study of experiential education on adolescent development employed a practical, working definition:

For purposes of this study, experiential education programs were defined as education programs offered as an integral part of the general school curriculum, but taking place outside of the conventional classroom, where students are in new roles featuring significant tasks with real consequences, and where the emphasis is on learning by doing with associated reflection. (p. 59)

Clearly, adventure group school counseling fits into every parameter of this definition. Sponsored by the participating school system, it was recognized as a valuable part of the curriculum. The students/counselees were taken outdoors, off campus. They learned (changed) by doing (training) and then reflecting upon (clinical debriefing) their new roles as members of a wilderness search and rescue team.

The Experiential Learning Process

Experiential learning is a redundancy! The learning process in experiential education narrows the gap between ends and means, between acquisition and application. It is the direct inverse of conventional classroom learning. The sequence of events in the classroom begins with the dispensation of information from teacher to student. This information is then (supposed to be) organized and

assimilated by the student. Later, the classroom student (supposedly) masters the information when it is actually applied through action. Experiential learning reverses the sequence. Here, the learner is presented with the opportunity to begin with action and observe the effects of that action. From this experience, general concepts and principles are deduced. As such, the experiential learning approach offers the counselor of "underachieving" students the following possibilities: immediacy of application (the practice of new behaviors), concrete substantiation of abstract concepts (the connection between feeling and behavior, affect and action), intrinsic motivation (adventure consistently overpowers resistance), and learner-centered responsibility (the learner/client is no longer the passive recipient of information/therapy).

At the theoretical level, the experiential learning process was most carefully analyzed by Kurt Lewin and his associates in their early work on group dynamics (Kolb & Fry 1975). Kolb and Fry extract a "deceptively simple" four stage cycle:

The underlying insight of experiential learning is deceptively simple, namely that learning, change, and growth are best facilitated by an integrated process that begins with (1) here-and-now experience followed by (2) collection of data and observations about that experience. The data are then (3) analyzed and the conclusion of this analysis are fed back to the actors in the experience for their use in the (4) modification of their behavior and choice of new experiences. Learning is thus conceived as a four stage cycle [as shown in Figure 2.2]. Immediate

concrete experience is the basis for observation and reflection. These observations are assimilated into a "theory" from which new implications for action can be deduced. These implications or hypotheses then serve as guides in acting to create new experiences. (p.38)

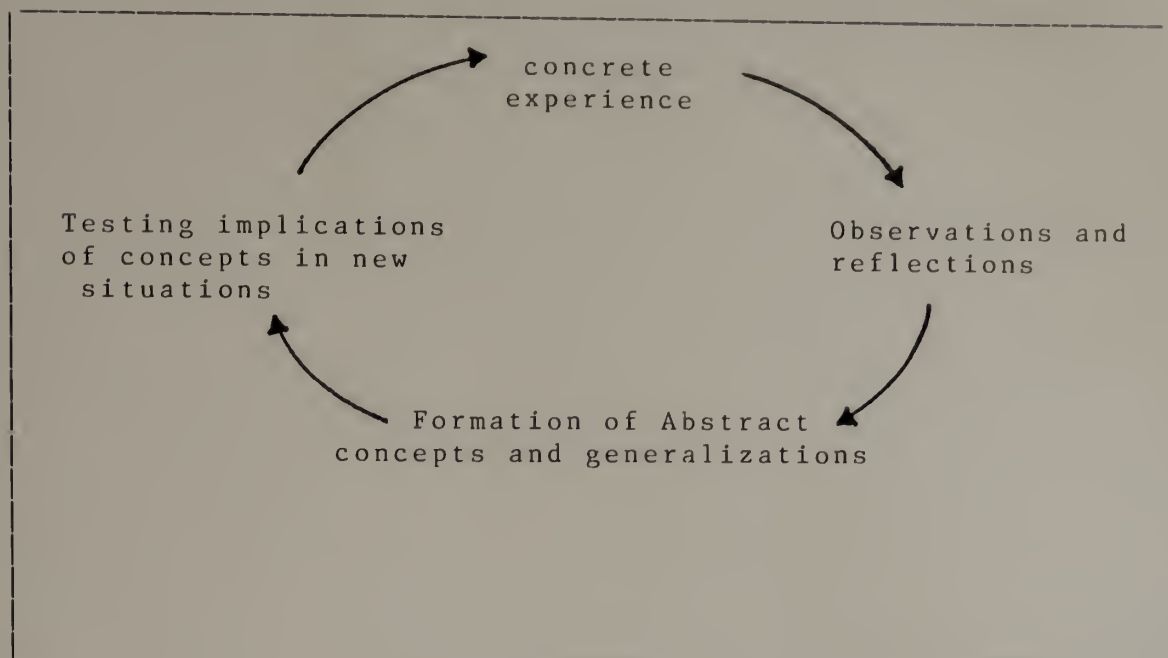


Figure 2.2 The Experiential Learning Model

Note. From "Toward an applied theory of experiential learning" by D. Kolb and R. Fry. In C.L. Cooper (Ed.) Theories of Group Processes (p. 39), 1975, New York: J. Wiley and Sons.

The deceptive part of this simple theory lies in the educator's choice of new experiences. Not all experiences are genuinely or equally educative. The role of the experiential educator is to provide a planned experience that focuses on the concepts to be taught. Jernstedt (1980) researched the experiential components in academic classrooms. He and his students identify the critical element in the effectiveness of classroom demonstrations as

learning experiences to be:

the manner in which the demonstrations are chosen. Courses in which the instructor focuses on choosing demonstrations that are interesting and relevant do not produce the same learning as those in which the instructor focuses on the concept to be taught and then finds demonstrations to fit those concepts. The effectiveness of experiences ... is a function of the necessity for those experiences. [emphasis added]. (p. 15)

Adventure group school counseling creates a powerful necessity for even the most seemingly foolish initiative game by placing it in the context of wilderness search and rescue team development. Success or failure in the outdoor adventure experiences, turns on the group's capacity for team-work.

Each experience affects each learner somewhat differently. Hamilton (1980) returned to Dewey when he defined experience as:

the interaction of the external conditions of the environment with the internal state of the learner. Therefore, the same external conditions can have different outcomes depending on how they interact with individual learners' unique internal states. (p. 190)

The adventure group school counselor, therefore, is attentive to designing experiences (Step one in the experiential learning cycle) that elicit the specific quality and quantity of therapeutic "material" (content) to which individuals and the group can readily process during the clinical debriefing session. Through observation of and reflection upon (Step two) their own and other's affect and

actions during the experience, students/counselees form abstract concepts and generalizations (Step three) about their internal selves and their external behaviors.

Whereupon, the adventure group school counselor introduces new situations to test the implications of the new intra- and interpersonal concepts and generalizations (Step four) in the compelling environment of outdoor adventures, i.e., wilderness search and rescue team training.

Action-Oriented Counseling

Adventure group school counseling is built upon action-oriented experiences. It uses physical activity (i.e., outdoor adventure experiences), not only talk, as a major mode of relating. On a continuum with action and verbal therapeutic approaches at each extreme (Nickerson & O'Laughlin, 1982), adventure group school counseling constantly jumps back and forth between the two endpoints, having lots of action with powerful verbal processing. Organized action, i.e., activity, has served as a therapeutic medium since Slavson (1947) developed Activity Group Therapy. The utilization of games and game theory in counseling is of a more recent vintage (Crocker & Wroblewski, 1975; Nickerson & O'Laughlin, 1980; Teeter, Teeter & Papai, 1976; Varenhorst, 1973). Adventure group school counseling is, clearly, action-oriented and (adventure) game-centered. Crocker and Wroblewski (1975) identified six helping

functions of games in counseling: as an assessment tool to observe behaviors as a living situation where specific anxieties can be confronted and worked through, as an analogy to living responsibility (playing by the rules), as a playful and fantasy process to free up more creative potential, as a safe environment to experiment with new behaviors ("it's just a game"), and as a generator of newer and more adequate coping behaviors.

Adventure group school counseling utilizes cooperative games, outdoor activities, and group problem-solving exercises as shared experiences in which feelings can be explored, behaviors changed, and in the process, a team identity can be developed. In adventure group school counseling these shared experiences are verbally processed through the clinical debriefing model.

Clinical Debriefing

It is with clinical debriefing that adventure group counseling makes its most significant departure from standard Outward Bound practices. The investigator is a trained school and counseling psychologist; Outward Bound instructors are trained outdoor adventure leaders. Counseling is the sine qua non of adventure group school counseling, and the adventure experiences stand in service of individual psychosocial growth and behavior change and specific group counseling goals.

Bacon (1983) provides the most lucid insight into

Outward Bound's capacity to positively influence and change the "character" of its students. His book, The Conscious Use of Metaphor in Outward Bound, is an exacting, cogent, and comprehensive analysis of the mechanisms of character change or "personal transformation" (through the conscious use of metaphor) available to and employed by Outward Bound instructors during a standard Outward Bound course. The deliberate therapeutic interventions of adventure group school counselors contrast sharply with the subtle metaphoric manipulations of Outward Bound instructors. This represents more than a difference in style, but a difference in purpose as well. Again, adventure group school counseling is committed to individual psychosocial growth and behavior change while realizing specific group therapy goals. Outward Bound is committed to character building through value forming experiences. As such, the clinical debriefing model and the metaphoric model differ in both form and function.

The Metaphoric Model

Learning to read a topographical map is an important orienteering skill. Ideally, the mastery of this ability to navigate can also help a student learn where to go with his life. In this sense, the skills training and other didactic and experiential learnings become metaphors for an underlying goal of personal transformation. Outward Bound is not only experiential education; its character-change component is a form of metaphoric education. (Bacon, 1983, p. 2)

Bacon uses the term "metaphor" both literally and figuratively (surely appropriate usages). For Bacon, the metaphors in Outward Bound lie in the actual course experiences (literally) and their introduction/interpretation (figuratively) by the course instructor. Bacon (1983) states, "The key factor in determining whether experiences are metaphoric is the degree of isomorphism [structural similarity] between the metaphoric situation and the real-life situation" (p.4).

Bacon (1983), identifies the transformational potential of Outward Bound as the interaction between the intrinsic, archetypal meaning of each discrete Outward Bound experience and the instructor's ability to shape each experience into a course "moment". It is the task of the instructor to take the metaphors within the experience (such Jungian archetypes as the Mother, Hero, Hermit, or Sacred Space, Fate, Ascent to Heaven) and "dress" them verbally (through story, allegory or parable) and nonverbally (through gesture, posture, tone of voice or movement) so that the metaphors are heightened for the patrol and/or individual students.

Bacon describes four specific metaphor "dressing" techniques: narratives, direct suggestions, distractive suggestions, and reframing. Narratives can be employed to metaphorically expose students to a particular problem-solving strategy that would enable a more successful experience. The narrative stories need to be isomorphic with

the students' inner experiences and related in great detail and affective intensity. Direct suggestions can be a critical part in forming expectations and reactions to an outdoor adventure experience. Direct suggestions, offered in a creative and engaging presentation, can concentrate the students' attention in the desired direction. Distractive suggestions can refocus the students' attention away from an anxiety generating aspect of an experience (the physical risk) and onto a relatively minor, much safer, aspect (the social challenge). For example, the leader can introduce the first rock climb with, "today we need to focus on communication". Distractive suggestions can maximize the probability of a success experience and minimize the loss of unconscious benefits from the metaphor within the experience. Through careful verbal pacing and leading, the instructor can reframe an objective failure into a metaphor of subjective success. "The classic Outward Bound reframe is to recontextualize failure experiences as opportunities - opportunities to learn, opportunities to display fortitude, opportunities to practice compassion, and so on" (Bacon, 1983, p.41).

With these techniques, Bacon describes the "conscious" manipulation (by the instructor) of unconscious mental processes (within the student): "...in metaphor - at least as it is used herein - the message of the metaphor is absorbed experientially, affectively and unconsciously, with

only minimal or, at most, secondary contributions from the conscious intellect" (Bacon, 1983, p. 2). Bacon acknowledges Milton Erickson, the renowned hypnotic psychotherapist, as the pioneer of this unconscious approach. He conceptualizes the unconscious, complex, cognitive processes within the student as the transderivational search - the process by which information is decoded and formed into models of the world or reality maps within the student's mind.

For Bacon, the literal reality of each Outward Bound course experience represents a metaphor - a psychological reality - for corresponding real-life experiences beyond the course itself. The process of transderivational search connects the metaphoric experience (of Outward Bound) to related structures (isomorphism) within the student's reality map of his or her experiences. By manipulating the metaphoric experiences towards successful outcomes the instructor can reorganize the students "typical life strategies".

Clinical Debriefing Model

The clinical debriefing model of adventure group school counseling applies the principles of Piagetian developmentalism and constructivism to psychotherapeutic interventions. Kegan's (1982) publication of The Evolving Self, was a watershed work in this area. Kegan looks towards the zone of mediation between an event and a

reaction to it, as the place where human meaning is made. This zone of mediation he calls the "self". Kegan views the meaning-making process (constructivism) from the inside, from the point of view of the self. In so doing, he understands the self as engaged in a process that is simultaneously cognitive and affective. Kegan incorporates personality development into an ordered system of "eras" or stages that evolve according to identifiable principles of stability and change (developmentalism). He sees the movement through these eras as the natural, healthy rhythms and labors of human development, as, "the evolving self".

Clinical debriefing collapses Kegan's larger theory into a counseling model. The clinical debriefing model applies four major processes in Piagetian constructivism to a clinical setting: assimilation, decentration, accomodation, and equilibration. Assimiliation is the process of fitting one's experience into one's present means of organizing reality. Decentration is the process of unfocusing attention from only one aspect of an experience and, thereby, potentiating the construction of new meanings. Accomodation is the process of reorganizing one's present way of making meaning to take account of new meanings. Equilibration is the process of balancing the tension between assimilation and accomodation and maintaining the steady state of the current meaning system. (Ault, 1977; Cowan, 1978; Forman and Kuschner, 1977; Kegan, 1982).

Clinical debriefing is an act of direct cognitive and affective mediation, an intervention into the meaning-making process itself. Before the end of each treatment session the group gathers to debrief their experiences during that session. The adventure counselor guides individuals and the group through the four steps of the clinical debriefing model: assimilation, decentration, accomodation, and equilibration.

Figure 2.3 presents the 4 steps in the clinical debriefing process. Each step focuses on one specific piagetian process in the construction of intra- and interpersonal meaning (personal self and team identity). The four steps are progressive, moving towards the development of significant, therapeutic change. During assimilation each individual describes his or her physical, intellectual, social and emotional experiences now, during debriefing, and earlier during the action phase of the treatment session. While each person describes his/her experience the rest of the group practices attentive listening. During decentration the group and counselors interpret their individual experiences, differentiate the person from the behavior, and recognize patterns of intra- and interpersonal behavior within and without the group. At this point the discussion is wide-ranging and open-ended with the counselors attentive to the rise and fall of supportiveness and defensiveness within the group. During accomodation the counselor facilitates the

Clinical Debriefing

Step I. Assimilation

Each individual describes his/her personal experience of the adventure activities. Focus is drawn upon the whole person, (How are you reacting physically/intellectually/socially/emotionally?)

Step II. Decentration

1. Connecting current feelings and behaviors with past feeling and behaviors. (When have you felt/behaved like this before?)
2. Recognizing consistent and persistent patterns (How are these experiences alike?)
3. Separating the person from the pattern, the present from the past. (Is this the way you want to feel/act now?)

Step III. Accomodation

Constructing changes in the personal and group meaning system that define:

1. More adaptive individual and group understandings, i.e., self-concepts and team identity. (How has this experience strengthened you and the group?) and;
2. More responsible action plans (future behaviors). (How do you/we want to meet this challenge next time?)

Step IV. Equilibration

1. Review of preceeding steps. (Who can summarize this debriefing? Has s/he forgotten anything/body?)
2. Complete postsession Feedback Sheets to monitor affective response and cognitive understanding.

Figure 2.3 The Four Steps of the Clinical Debriefing Model

integration of any new individual and/or group insights/meanings. The group and counselors identify specific behaviors to replace the old, unhelpful behaviors. Finally, equilibration provides a summation of the process and a chance to reinforce commitments to the new behaviors/action plans.

The clinical debriefing model translates the (metaphoric) experiences into direct personal knowledge. It integrates present experience with past behavior, raises to conscious awareness (subjective) emotional needs and the patterns of (objective) behaviors used to meet those needs, and constructively changes the current schema of personal meaning (the self-concept) so that needs and behaviors can be more appropriately and effectively expressed in the future. However, the clinical debriefing model also defines a process/program of (inter)personal behavior change. As such, it follows some procedures of reality therapy (Glasser, 1965) and rational-emotive therapy (Ellis, 1973). Raiola (1986) reviews a transtheoretical model for outdoor leadership and counseling. Raiola's practical focus on communication and problem-solving parallels the more theoretical aspects of the clinical debriefing model.

Successful clinical debriefing can only happen in the context of strong therapeutic alliances among team members (individually and collectively) and between the team and the adventure counselors. As such, careful attention to the team

development process is critical. Premature and/or heavy-handed clinical debriefing is immediately perceived as confrontational. Clinical debriefing is a model that must be accepted and respected by the group before it can be effectively utilized. Yet the model holds significant inherent rewards. By raising the level of the counselees' self-awareness, clinical debriefing offers them a program of self-directed change. It demystifies the counseling process and empowers the counselee. The clinical debriefing model is concretized in the Team Compact and Feedback Sheets.

The Feedback Sheet is completed by each counselee alone, between treatment sessions. It represents an intrapersonal dialogue between the counselee and his/her "self" and an interpersonal dialogue between the counselee and counselors. The Feedback Sheet lists four questions, on the front of one page of paper. The questions are evenly spaced, to provide enough room for each subject's written responses. The four questions are: "Describe what we did at our last meeting?"; "Describe how you felt while doing the activities?"; "How do you feel about it today?"; "What did you learn about yourself and other team members?". These questions were designed to tap the subject's abilities of formal recall, expression of feelings (past and present), and interpersonal introspection or awareness.

The Team Compact is the other, tangible product of the

clinical debriefing process. It involves a group behavioral contracting process that passes through four identifiable phases: articulation, formalization, enactment, and termination. The first step in the articulation phase is the introduction of the Team Compact to the group. After the adventure school counseling group has passed through the recruitee and participant stages of team development, they are, developmentally, ready to address the Team Compact as the next logical step in team development. In the supportive environment of the adventure school counseling group each team member identifies a specific behavior, within his repertoire, that he now recognizes as unhelpful in social/group situations.

When all the behaviors have been identified and the documentation is completed, the Team Compact is ready to be formalized. Time is set aside during a group meeting for each team member to make a public commitment to change the identified behavior. A written document, the formal Team Compact, is reviewed, signed by all team members and countersigned by the counselors as witnesses.

After the Compact is formalized, it is considered socially binding, and the enactment phase is entered. Throughout the enactment phase, each compacted behavior serves as a personal reference point for each team member during the clinical debriefing time that follows each adventure experience and the weekly Feedback Sheet each member

completes. Finally, when the team feels they have met the terms of their Team Compact and changed their behavior, the Team Compact is terminated. It is sometimes helpful to ritualize the termination, not unlike burning the last mortgage statement.

Contrasting the Metaphoric and Clinical Debriefing Models

Bacon (1983) and the investigator share a constructivist phenomenological epistemology. They part company, however, at the crossroads near the entrance of the zone of mediation, the transderivational search. The investigator chooses the path clearly marked, "counselor". Bacon chooses the path marked "charismatic outdoor leader". When discussing how to deal with "problem" students, those who, "continue to impose their chronic loser patterns on the metaphoric activities" (p. 85), Bacon (1983) clearly recognizes the limits of metaphoric manipulations and the need for psychotherapeutic interventions. Still, he suggests that any use of psychotherapeutic techniques on an Outward Bound course be limited, brief, and minimal:

the goal is not to alter radically the student's personality through individual interview and group therapy, but rather to offer a brief, limited [psychotherapeutic] intervention to allow the student access to the course. The metaphors and the general Outward Bound experience will then be able to perform an elegant and appropriate personality transformation. (p. 86)

Unlike a standard Outward Bound course, adventure group school counseling is a psychotherapeutic intervention and all the students are, by referral, problem students. This fact throws the differences between the metaphoric and clinical debriefing models into sharp relief.

The clinical debriefing model maintains that people readily assimilate any new data that confirms their current world view while readily ignoring data that conflict (contradiction). This is one of the homeostatic or equilibrative functions in meaning-making. When the conflict is so great that it can neither be ignored nor meaningfully placed on the current reality map, then there is reorganization/accommodation. No doubt the extraordinary experiences (adventures) of Outward Bound can "impel" people towards reorganization of their personal meaning system. Adventure group school counseling, however, cannot utilize such physically compelling experiences. The risk factor has to be minimal in a public school setting. Therefore, in order to meet its mandate to counsel troubled adolescents, adventure group school counseling supplements its, necessarily, less powerful adventures (in relation to the more physically dangerous and remote wilderness experiences of Outward Bound) with a more direct intervention into the personal meaning-making process (clinical debriefing instead of metaphoric manipulations).

While a healthy person will naturally decenter and

accommodate compelling disconfirming data, the person with a less healthy self-concept will stay centered on negative input and deny, distort, or disregard positive data from success experiences. The counselor's efforts to structure more and bigger success experiences is necessary, but too often, not sufficient. Before the success experiences can be recognized as successes that impel reorganization of the self-concept armored in negativity, the meaning-making (self-constructing) process must be confronted explicitly. Clinical debriefing is modelled upon the meaning-making process itself and is designed to challenge the negative self-concept directly.

Through clinical debriefing the metaphor within the experience is illuminated. Clinical debriefing makes the connections direct and immediate. It transfers the learning then and there. The success experiences serve as provocations, decentering, or "thawing" the negative self-concept. The clinical debriefing is then an opportunity to change, accommodate, or "shift" some salient and unhealthy elements in the self-concept. Finally, the next, adventure experience can validate, and equilibrate the changes and then "refreeze" the new, more positive self-concept (Kesselheim, 1976).

Summary

This chapter presents the conceptual underpinnings of adventure group school counseling. In summary fashion, Figure 2.4 compares and contrasts a standard Outward Bound

	PHYSICAL SETTING	PHYSICAL STRESS FACTOR	MOST SALIENT MOTIVATION	MAJOR PROGRAM ORIENTATION
OUTWARD BOUND	Wilderness immersion (a separate reality)	Real (controlled) physical danger	High adventure	Task oriented
PROJECT ADVENTURE	Ropes course hardware (a contrived reality, a laboratory)	"Perceived" physical danger	High excitement	Relationship oriented
ADVENTURE GROUP SCHOOL COUNSELING	Experiential "classroom" in the community (a less familiar extension of the school walls)	Physical challenge (low risk)	High personal meaning and social significance and more fun than regular classes	Personal and group change oriented

Figure 2.4 Summary of Differences Between Outward Bound, Project Adventure, and Adventure Group School Counseling

	EXPLICIT PURPOSE OF TRAINING	LEADER AS CHANGE AGENT	HELPING ROLE OF GROUP	THE PROCESS OF CHANGE
OUTWARD BOUND	Outdoor adventure and character - building	Charismatic outdoor leader (manipulating metaphoric experiences)	Patrol as cooperative group (essential to mastering the wilderness challenge)	Environmental confrontation (metaphoric exper- ience), intro- spection (trans- derivational search), affective impact (character change)
PROJECT ADVENTURE	Physical and social skills development	Facilitator (structuring and processing group interaction)	Support group (helping each other improve group interaction)	Structured interaction, group discussion, personal growth
ADVENTURE GROUP SCHOOL COUNSELING	Group counseling	Counselor (guiding specific psycho- social growth and individual behavior change)	Teamwork (team development as a therapeutic mileau)	Integrated adven- ture experience, clinical debrief- ing, specific psychosocial growth and individual behavior change

Figure 2.4 (cont.) Summary of Differences Between Outward Bound, Project Adventure
and Adventure Group School Counseling

course, Project Adventure ropes course and this adventure group school counseling program along eight specific program characteristics. The distinctions outlined in Figure 2.4 are purely heuristic, drawn to highlight some of the typical differences in emphasis of these three adventure programs. Indeed, the separate categories are in no way mutually exclusive. In practice, such lines quickly evaporate as each outdoor leader presents his or her own unique combination of skills, personality, and goals.

Though Figure 2.4 highlights the differences between these three outdoor adventure programs, the similarities among them are no less pervasive. Project Adventure is in the process of articulating a formal counseling model of its own (Adventure-Based Counseling) and the standard Outward Bound course has been incorporated into several clinical settings. Adventure-Based Counseling and the clinical applications of Outward Bound are reviewed below.

Adventure-Based Counseling:

Since 1979 Project Adventure has offered scores of demonstration/training workshops in adventure-based counseling. The investigator attended one such training workshop in the Fall of 1981. The experiences and learning this investigator gleaned from that workshop formed the foundation upon which adventure group school counseling was/is constructed. The

investigator left the workshop with a new copy of Cowtails and Cobras (Rohnke, 1977), and several original manuscripts from the workshop leader, Paul Radcliffe in hand. When searching for other literature on adventure-based counseling, the investigator came up empty handed. Five years later, the only new literature is two Final Evaluation Reports (Lieberman & DeVos, 1982, 1984), a brief curriculum outline ("Suggested Activities and Initiative Games, for use in Adventure-based Counseling Programs", undated) and a brochure. Mr. Radcliffe has indicated in personal communication that he and some colleagues are very close to completing the book on adventure-based counseling. Still, the investigator acknowledges adventure-based counseling as the organizing principle behind adventure group school counseling, despite the dearth of publications.

Lieberman and DeVos (1982, 1984) begin both evaluation reports with the following introduction describing adventures-based counseling:

Adventure based counseling, ... provides direct counseling services to special needs students with behavior and adjustment difficulties. The counseling model employs experiential adventure activity in a highly structured, developmentally sequenced program that assists handicapped students to develop and learn increased socialization skills, cooperation, self-confidence, and more responsible patterns of behavior. The program utilizes group dynamics, group interaction, and carefully designed and sequenced adventure activities in areas of Trust, Communication,

Decision-making, Problem-solving, Personal Responsibility, and Social Responsibility to help students examine themselves and their relations with their environment. Focusing on student perceptions, feelings, and behaviors, the program helps the students to understand who they are, how they react to their environment, how they set themselves up to fail, and how they might have more control of themselves and their environment. (p. 1)

Adventure group school counseling has directly applied adventure-based counseling's sequenced adventure activities as its group counseling goals. Another direct acquisition from adventure-based counseling is the pattern of a strategically placed group initiative or ropes course activity followed by a structured group discussion. These same activities are called team development exercises and clinical debriefing in adventure group school counseling jargon. Radcliffe, in his article "The Adventure Based Counseling Group" (undated), describes the process:

The group begins with activities and initiatives designed to help each student 'present' himself in order that members of the group develop an early sense of closeness. Soon, the program leads students to look more deeply into who they are through a series of issue related activities and initiatives. The group, for example, undertakes an activity designed to focus on giving and receiving help. In discussion (debrief), each student is guided in exploring his perceptions, thoughts, feelings, and behaviors when being helped and when giving help, and in relating this experience to his lifestyle in general. Each student then is asked to assess for himself the degree to which he felt his experience was satisfying and to develop possible alternative modes of responding to the situation. (p. 8)

Adventure group school counseling shares, as well, the experiential base of adventure based counseling: "Based on the recognition that for many people learning can be an essentially passive process, the ABC models combine active and compelling experience with some of the basic tenets of traditional learning and counseling" ("Adventure-Based Counseling", a pamphlet. Available through Project Adventure, Inc.).

Finally, Radcliffe's article, "Confronting Passive Behavior Through Outdoor Experiences" (undated), presents the concept of a therapeutic contract in the context of an adventure-based counseling program. In adventure group school counseling this individualized contract is incorporated into the Team Compact.

Clinical Outward Bound

Outward Bound has provided the framework for direct and adjunctive therapeutic contact with clientele from the corrections, mental health or special education sectors. Almost 20 years ago Kelly and Baer (1968) documented the effectiveness of Outward Bound programs for adjudicated youth. In the Fall of 1979, the Journal of Experiential Education published a list of 90 Outward Bound programs adapted to special populations. In the process of adapting its standard course to meet the special needs of specific clientele, Outward Bound has developed programs that

parallel, in many ways, adventure group school counseling.

Weider (undated) published an article through the Colorado Outward Bound School entitled, "Viewing Outward Bound as an Experience Based Counseling Model". In his brief article, Weider articulates a framework for Outward Bound programs with troubled adolescents. Weider presents guidelines for understanding group behavior (an Eriksonian stage theory of group development) and treatment planning (staff identified "individual growth issues"). He recognizes the need to adapt the staffing pattern to include a primary instructor and a co-instructor. The primary instructor is responsible for managing the actual course plan and Outward Bound process. The co-instructor functions in the role of counselor, monitoring each students behavior in relation to his or her "individual growth issue" and mediating intragroup "mood" and/or conflicts.

Stich and Gaylor (1983) present data from the Dartmouth Outward Bound Mental Health Project that uses Outward Bound as a treatment option in three different clinical settings for psychiatric patients and recovering alcoholics. The Project uses day long Outward Bound experiences to address clinically relevant issues and provide resource material for the cognitive content of the patient education component in the clinical setting. The treating therapist is often present during the Outward Bound experiences in order to maximize the integration of clinic, home, and adventure environments.

Finally, Kaplan (1979) provides a community-based follow-through model as an adjunct to an Outward Bound intervention with troubled adolescents. Kaplan, a social worker, sees Outward Bound as a short-term, intensive therapeutic intervention effective in breaking aberrant behavior patterns. She argues that a community-based follow-through program would help the client evaluate and integrate the learning and growth from the Outward Bound experience into his daily life in the community. Kaplan identifies three components to a community-based follow-through program that complement, reinforce, and/or transfer the behaviors learned at Outward Bound: community service placements, alternative education programming, and ongoing counseling.

Conclusion

Adventure group school counseling has no magic fairy dust. The students/counselees will not change as a result of outdoor adventures or team development or experiential learning or clinical debriefing. However, the interactive processes of outdoor adventure and team development and experiential learning and clinical debriefing will, it is proposed, effect positive changes in underachieving adolescents. While adventure group school counseling shares many commonalities with Outward Bound and Project Adventure, the differences between them are significant.

C H A P T E R I I I

METHODOLOGY

This chapter describes the methodology undertaken to study the effects of an adventure group school counseling, wilderness search and rescue training program in a Northeastern public high school. The chapter is divided into three sections: Hypotheses; Procedures, including population samples, design, instrumentation, and statistics; and Program Narrative, a description of the treatment program.

Hypotheses

This adventure group school counseling, wilderness search and rescue team training program is more than an outdoor club. It is also a coherent school counseling program and a research project. As such, the students in this program participate as search and rescue team trainees, adventure group school counselees and experimental subjects. Adventure group school counseling, as an intermediate level direct psychological service to underachieving public secondary school students, targets specific areas of measurable psychosocial growth and individual behavior changes in the counselees/subjects. Six null hypotheses were articulated to measure these specific areas of psychosocial growth and behavior change. One hypothesis, the sixth, stands apart from the others because it does not lend itself to quantitative

statistical analysis and has, therefore, been subjected to a different set of descriptive, qualitative analyses. Listed below are the six null hypotheses.

Hypothesis I

Participation in adventure group school counseling will not significantly change the self-concept of the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by the pre-/post- administration of the Tennessee Self-Concept Scale.

Hypothesis II

Participation in adventure group school counseling will not significantly change the complexity of the experimental treatment subjects' reasoning about interpersonal relationships, in contrast to the experimental control subjects, as indicated by pre-/post- administrations of the Selman Interpersonal Awareness Scale.

Hypothesis III

Participation in adventure group school counseling will not significantly change the level of the experimental treatment subjects' internal locus of control, in contrast to the experimental control subjects, as indicated by pre-/post- administrations of the Locus of Control in Three Achievement Domains.

Hypothesis IV

Participation in adventure group school counseling will not significantly change school absenteeism and tardiness by

the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school attendance records.

Hypothesis V

Participation in adventure group school counseling will not significantly change the occurrence of punishable misbehavior in school by the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school detention records.

Hypothesis VI

Participation in adventure group school counseling will not qualitatively change the two treatment groups' stage of team development as indicated by the subjects' Feedback Sheets, Team Compact, and the investigator's Field Notes.

Procedures

Population Samples

One goal of this research is to articulate a model program of adventure group school counseling and then field test this model program in a public high school in the Northeast. To that end, the process through which research subjects were selected is both a strength and limitation of this study. The subject selection process was complicated. It was designed to meet the needs of both scientific research and a functioning school community. Rather than just seeking enthusiastic student volunteers or randomly selecting subjects

from the general student population, the investigator sought to maintain rigorous scientific standards while enlisting greater involvement of students, teachers, and administrators. In so doing, the investigator hoped to gain credibility for the program and define a counseling service delivery system that would better meet the needs of the school than the PET process (See Problem Statement, Chapter I).

Selecting the Experimental Groups (treatment and control)

After receiving the approval of school administrators the investigator addressed the High School faculty at one of their monthly meetings. The investigator presented a brief outline of adventure group school counseling and some possible ways it could be applied in their school. Everyone at the faculty meeting was given a blank piece of paper and then solicited for student referrals. The investigator encouraged each staff member to write down the obvious names first; "... those bad actors that are always disrupting your class. The few that, if you could only get rid of them, you could get a lot more teaching done...". After a minute the investigator then said, "...Okay, now that the obvious ones are out of the way let's think about the rest of your class. Let's try to identify some of your other students that are not realizing their potentials but are often overlooked because they don't act out. The ones who always sit in the back by the windows silently staring out; the good kids trying to hang out with

the bad; the ones whom you suspect are starting to experiment with drugs; the loners, the confused, the out-of-place, all the underachievers".

The response was overwhelming. After the names of any student receiving special services were deleted from the list, 175 different names remained. This represented more than 25% of the total student population of the high school and became the referral pool of "underacheiving" students from which the investigator drew the two experimental groups.

Because this experiment happened in the field and not in the laboratory, a number of practical constraints had to be effectively addressed. For example, the students/subjects were only allowed to participate during one of the free periods in their previously established daily schedule. To solve this problem, the schedule of each referred student was examined and her/his free periods recorded on a large chart. Then the one class period in the week that had the largest number of referred students in study hall and did not conflict with the adventure counselors' already busy schedules, became the established meeting time of the adventure group school counseling, wilderness search and rescue team training program at the high school.

The "magic" class period was period 5 on Mondays, the 40 minutes right after lunch. There were 28 referred students whose schedules indicated a free period at this time. From those 28 the first 14 that were literally pulled from a

hat served as possible experimental treatment subjects while the other 14 were identified as possible experimental control subjects. Over the next 3 days, each experimental treatment candidate was called into a private meeting with the adventure counseling staff. At this meeting, adventure group school counseling and an overview of the selection process were discussed with the candidate. Four students had already changed their schedules and no longer had period 5 free on Mondays. The other 10 all responded positively and wanted to participate in the adventure group school counseling, wilderness search and rescue team training program. Fortunately, at the end of this selection process, the experimental treatment group had 10 members -- five males and five females!

The 14 control candidates were then divided by their gender. Five males and five females were randomly selected. This study will not examine the possibilities of differential effects according to gender. The fortuitous 50 - 50 mix in the experimental treatment group and the possibility of matching for gender in the experimental control group limits gender as a potentially significant intervening variable here. It was not possible to exactly match control to treatment groups according to age, except in so far as each contained only sophomores and juniors. No seniors' names had been pulled from the hat at the random selection of the experimental treatment group. Accordingly, seniors were not

considered for the experimental control group.

Selecting the Supplementary Groups (comparison and contrast)

As a principle of scientific research, the population from which subjects are selected is the population to which the experimental results will be generalizable. The experimental treatment and control subjects were referred and selected through an informal and unorthodox process. In order to assess some of the ways in which the informal faculty referral process might impact the experimental findings of this study, a third group of 10 students was included in this study - the comparison control group.

This third group was a sample from the high school population-at-large. Eighteen students present in a randomly selected study hall agreed to complete the pre- and posttest measures. The names of the two seniors present in this study hall were excluded and then five males and five females were randomly selected. Present at this study hall were three students from the large "pool" of students referred by the faculty. Two of these "underachieving" students remained after the stratification/randomization process and completed the pre- and posttests as members of this group.

The comparison control group is a representative sample from the whole student population at the field site. The experimental control group, on the other hand, is a representative sample from a subpopulation within the school, i.e., the pool of students referred to the adventure group

school counseling program. A comparative study of the two control groups (experimental and comparison) indicates some of the ways the informal faculty referral process identified a pool of underachievers that is (not) a homogeneous group alike (or different from) the general, unlabelled, student population at the field site.

A fourth group, the contrast treatment group, was also included in this study. This fourth group consisted of seven special education students who had earlier been identified as behaviorally handicapped through the Pupil Evaluation Team process. Three additional students were handpicked by the investigator. In the opinion of the investigator, these three additional students were popular, attractive, and held in high esteem by their peers and teachers. Their inclusion was initially designed as a strategic move to help overcome the strong resistance the seven behaviorally disordered students demonstrated when first approached to participate in the adventure group school counseling program. It was also seen as a way to disrupt, what the investigator considered, the established pecking order among the seven special education students. The investigator also considered the therapeutic value of providing positive role models for the behaviorally handicapped students and the potential for building bridges of mutual respect across the large social distance that often separates special education students from the larger "unlabelled" student population. This fourth group of 10

students participated in an adventure group school counseling program that was separate from, but similar to, the treatment program that was administered to the experimental treatment group. Its unique membership was not randomly selected and no equivalent control group was possible. As such this treatment group represented a contrast to the experimental treatment group, hence its name, the contrast treatment group.

Summary of Sample Populations

Figure 3.1 displays the four sample groups of ten individuals involved in this study. The experimental treatment group (1x) was randomly selected from a pool of "underachievers" and matched according to gender and school grade to an experimental control group (1y) of "underachievers". Included, as well, are two supplementary groups. One supplementary group is identified as the contrast treatment group (2) and consisted of seven behaviorally handicapped and three high status and high achieving students. This group was unmatched to any other involved in this study. The final supplementary group is called the comparison control group (3) and was randomly selected from the total student population of this public high school and matched to the experimental control group according to gender and school grade. The experimental treatment and contrast treatment groups, (1x) and (2), participated in separate, similar, and

simultaneous adventure group school counseling programs of wilderness search and rescue team training. The two control groups, (1y) and (3), participated only in the pre- and posttesting.

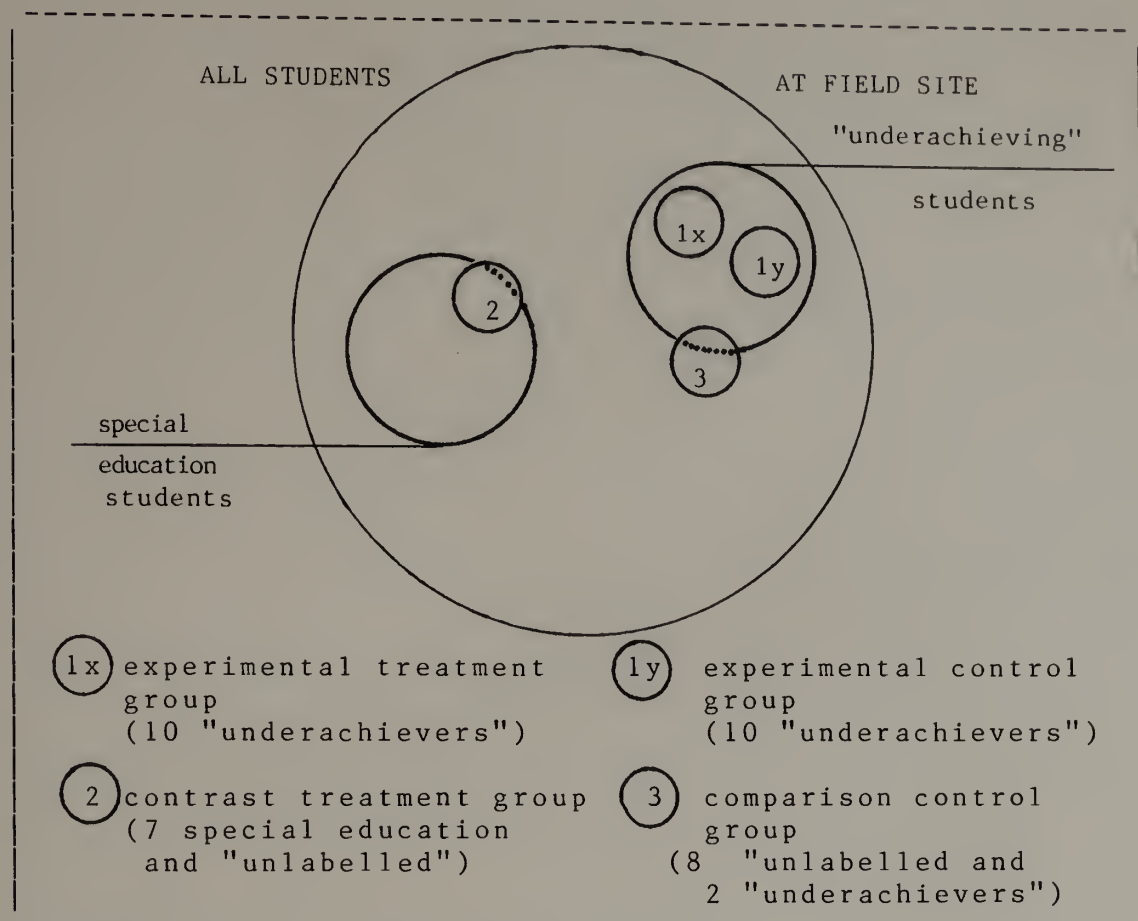


Figure 3.1 The Student Subpopulations at the Field Site Sampled by The Experimental and Supplementary Groups

DESIGN

Quantitative Research Design

Randomly selected from the sample of 28 referred students in study halls at the established adventure group

school counseling meeting time, 2 groups of 10 students were formed. One group was the experimental treatment group and the other was the experimental control group. Assignment to experimental or control group was through a random process and stratified by gender and school grade (only sophmores or juniors). The first 5 research hypotheses compare the changes in pre- to posttest scores from the experimental treatment group and the experimental control group (See, Study of the Main Experimental Effects, Chapter IV). The design configuration for research of the first five hypotheses is a before and after control group design (see Figure 1.1, Chapter I). In so far as the two groups were randomly selected, this design controls the internal validity problems of history and maturation. Similarly, the testing effect, that is, learning from the testing process itself, will be held constant for both groups. These two groups represent the main study of this project. However, the investigator enlarged the design by adding two supplementary groups, a comparison control group and a contrast treatment group.

The comparison control group serves as a crosscheck of the informal faculty referral process that generated the subpopulation of "underacheiving" students from which the two experimental groups were selected. The comparison control group was a random sample of the general student population at

the field site, a Northeastern public high school. Comparing the pretest data from the comparison control group with the pretest data from the experimental control group identifies some of the (dis) similarities between this high school's student population as a whole and one of its subsets, the subpopulation of students identified by their teachers as "underacheivers" (See, Control Group Study in Chapter IV).

The contrast treatment group contains seven special education students (whose identification as behaviorally handicapped preceded the formation of the adventure group school counseling program) and three high status model students. This group was neither randomly selected nor matched to the experimental treatment group in any manner. This group of students/subjects stands as a contrast to the group of experimental treatment students/subjects in as much as it samples a significantly different subpopulation of students at the field site. Still, the contrast treatment group was subjected to similar pre- and posttesting and treatment conditions as the experimental treatment group. A post hoc study, the HiLo Studies, articulates a separate research hypothesis that crossclassifies the test data from the two treatment (experimental and contrast) groups (see, HiLo Studies, Chapter IV).

Qualitative Research Design

The sixth hypothesis, stated above, stands apart from all

the others included in this study. The units of analysis are significantly different. Instead of numbers, there are "words". Instead of pre-/posttest scores, there are stages of development. Instead of levels of significance, there are qualitative changes. The words are the written self-reports of the subjects, the summary statements of the treatment groups, and the observations of the investigator (i.e., Feedback Sheets, Team Compacts, and Field Notes, respectively). These data necessarily include both internal and external frames of reference, that is, the subjective experience of growing group involvement and objective, observable changes in group behavior. Because these data are primarily inferential it requires a naturalistic, phenomenological, in one word, qualitative approach.

Miles and Huberman (1984) identify three concurrent flows of activity during qualitative research: data reduction, data display, and conclusion drawing/verification.

Data reduction is a first level of analysis in which the raw (written) data are organized into working units of information through such procedures as coding, summarizing, memoing, or partitioning. Data display is a second level of analysis in which the working units of information are assembled into more accessible, compact formats through such techniques as graphs, charts, matrices, or networks. Conclusion drawing/verification is a third level of analysis in which "meaning" is drawn from the data through recognition

of patterns, regularities, causal flows, or propositions and then confirmed through replication, triangulation, or negative evidence. Miles and Huberman (1984) identify twelve separate and specific tactics for conclusion drawing and verification. They consider qualitative analysis a continuous, iterative process in which the three levels of analysis are interwoven in an interactive and cyclical process before, during, and after the experiment. The parameters of this study limit the qualitative analysis of the changes in stage of team development to exploratory, descriptive model-building (See, Chapter II). Though the qualitative data will be subjected to all three of Miles' and Huberman's levels of analysis the findings, by design, are to be considered provisional, outlining a conceptual framework for future research.

Summary of Design Configurations

This integrated and larger study of adventure group school counseling is comprised of four, separate, and smaller studies. Figure 3.2 uses the same legend as Figure 3.1 to represent the different "relationships" (research studies) among the four sample groups of students/subjects used in this study. Figure 3.2 follows the four sample groups (1x, 1y, 2, and 3 identified in the legend) and their relations as comparison groups (identifiable by the lines in the Figure) in each of the four discrete research studies (the

descriptive titles written "between the lines") of this project.

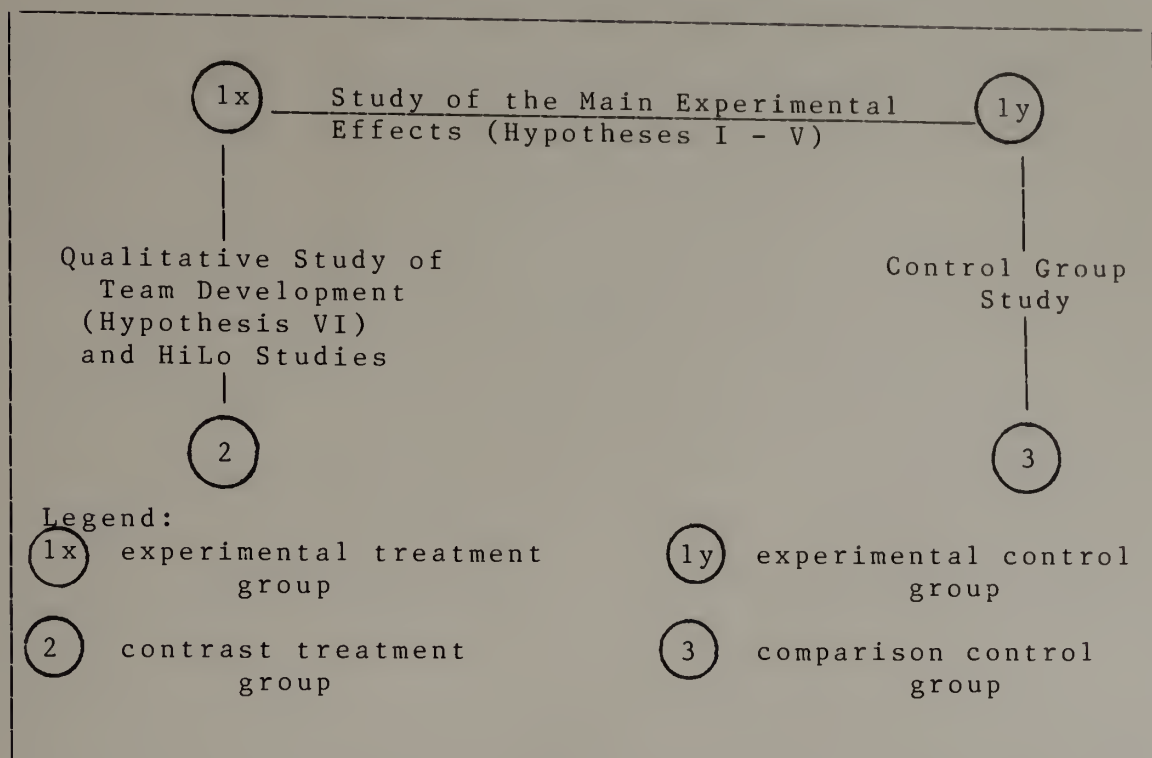


Figure 3.2 Overall Research Design Configuration.

Instrumentation

Each specific research hypothesis identifies a particular instrument that is used to evaluate its acceptance or rejection. This study utilizes three quantitative instruments to measure intrasubject changes in self-concept, interpersonal understanding; and locus of control (Hypotheses I, II and III respectively); two unobtrusive measures of changes in subjects' inschool out-of-treatment behavior (Hypotheses IV and V); and three qualitative measures of intersubject changes in team development behaviors

(Hypothesis VI). The quantitative pre- and posttest used to determine changes in self-concept is the Tennessee Self-Concept Scale (T.S.C.S.). The quantitative pre- and posttest used to determine changes in interpersonal understanding is the Selman Interpersonal Awareness Scale (S.I.A.S.). The quantitative pre- and posttest used to determine changes in locus of control is the Locus of Control In Three Achievement Domains (L.O.C.I.T.A.D.). School records during the treatment intervention period were examined for the number of student/subject absences, tardy attendances, and detentions to determine changes in school attendance and behavior (the unobtrusive measures). Finally, qualitative analyses of the treatment subjects' Feedback Sheets, the Team Compact, and the investigator's Field Notes measure the qualitative changes in team development within the two treatment groups. Appendix A contains blank copies of the T.S.C.S., S.I.A.S., L.O.C.I.T.A.D., Feedback Sheets and Team Compact.

Quantitative Measures

The Tennessee Self-Concept Scale.

The Tennessee Self-Concept Scale was chosen because it is widely recognized, well standardized, and multidimensional in its description of the self-concept. The test-retest reliability coefficient for all major scores falls mostly in the .80 to .90 range. Validation has been established through four procedures: content validity; discrimination between

groups; correlation with other personality measures; and personality changes under particular conditions. (Fitts, 1965).

The T.S.C.S. provides a global measure of self-esteem that it calls the Total Positive Score. The Total Positive Score is the single most reliable and important score on this instrument. It reflects the subject's overall level of self-esteem. Individuals with high levels of positive self-esteem tend to like themselves; feel they are persons of worth and value; and exhibit confidence in their own abilities. Those with low positivity scores on the T.S.C.S. tend to be more doubtful about their own worth; perceive themselves as less desirable; are more likely to express psychological problems; and have less confidence in themselves (Fitts, 1965 and Wylie, 1961).

On the T.S.C.S., the Total Positive Score is broken down into eight subtests grouped into two subscales. Every test item contributes to two subtests, one from each subscale. The answer sheet is conveniently designed so that the subject's responses are transferred by a carbon onto a score sheet. The score sheet is tallied horizontally and vertically. The three subtests that appear as horizontal rows on the score sheet (aptly named the Row subscale) represent the internally oriented subsets of the subject's self-concept. The subtests of the Row subscale are: Identity--the "What I am" items describing how the subject

sees himself; Self-Satisfaction--the "How I Feel About Me" items describing the subject's level of self-acceptance; and Behavior--the "This is How I Choose to Act" items describing the subject's perception of her own behavior. The five subtests that appear as vertical columns on the score sheet (aptly named the Column subscale) reflect the more externally oriented referents of the subject's self-concept, i.e. the parts of one's self-concept that are used when interacting with significant others or in a specific context. The subtests of the Column subscale are: The Physical Self--here the subject is presenting her view of her own body, state of health, physical appearance and sexuality; The Moral-Ethical Self--this subtest describes the self from a moral and ethical perspective and indicates the subject's sense of moral worth, relationship to God, feelings of being a "good" or "bad" person, and religious satisfaction; The Personal Self--this score reflects the subject's sense of worth and adequacy as a person apart from his physical body or specific relationships to others; the Family Self--responses to these items indicates how the subject perceives herself within the context of her family; and The Social Self--in this subtest the subject's sense of adequacy when interacting with social groups is measured.

There is one other subtest on the T.S.C.S not included in the Row and Column subscales of the Total Positive Score. It is identified as the Self-Criticism Score. It is derived from

ten items, all mildly derogatory statements that most people tend to admit as true. A high Self-Criticism Score indicates openness and capacity for self-scrutiny.

The Selman Interpersonal Awareness Scale.

Professor Robert Selman (1979) developed a structured, but reflective, interview to measure the complexity of an individual's reasoning about interpersonal relationships and group dynamics. The interview begins with a brief narrative in which the main character is involved in a social "dilemma". The narrative is read to or by the subject and then followed with a series of probing questions. The subject's responses are recorded and then coded by a trained scorer according to where they fall on Selman's five stage developmental theory. Appendix B presents a full description of Professor Selman's five stage theory of the development of interpersonal awareness.

Quantitative scores are rendered on the specific social "issues" that the particular dilemma highlights, i.e., trust, conflict resolution, leadership. Each "issue" score is calculated according to the proportion of the subject's responses to the probing questions that are representative of a single stage or split between two adjacent stages (indicating the subject is in transition around that specific issue). Finally, a weighted average of the issue scores results in a continuous score from 0-400 with 100 representing

pure Stage One reasoning, 150 representing the subject in transition between stages one and two, etc. This quantitative global score computed from the specific issue scores is identified as an Interpersonal Understanding Maturity Score (IMS).

This study investigated changes in five specific issues across two domains of interpersonal understanding. Within the friendship domain, the issues of trust (or reciprocity) and conflict resolution were measured. Within the peer group domain the issues of group cohesion (or loyalty), decision-making (or organization) and leadership were assessed.

Professor Selman and his colleagues have performed a series of validity and reliability studies on the Interpersonal Awareness Scale (Selman, 1980). The internal consistency of this measure was shown by performing a factor analysis of the separate issue scores and finding a single factor accounting for over 85% of the variance. While standardizing the instrument Professor Selman ran a test-retest reliability check on a control group. A correlation of 0.84 was established between the pre- and posttesting. Finally, he identified strong inter-rater reliability figures for this instrument. The average correlation between an expert scorer and individuals trained through workshops or independently by reading the manual are 0.94 and 0.92 respectively. The protocols from this study were scored blind by an expert scorer at Harvard University.

The content validity of the instrument was reinforced by

having the scoring procedure based on the reasoning students used to explain the choices they made in solving social dilemmas rather than just the choices themselves. Initially Selman was concerned that a written interview might not produce sufficient amounts of scoreable data. When collecting data to design this instrument Selman used face-to-face interviews with probing and elaboration questions by the interviewer. However, a set of scorers (who were blind to issues of pre- and posttesting as well as group membership) reported the same quantity of scoreable responses on both oral and written interviews. Selman (1980) carefully documents the concurrent and construct validity of his instrument.

The Locus of Control in Three Achievement Domains.

For this study, the instrument of choice to measure changes in participants' locus of control orientation was Robert Bradley's Locus of Control in Three Achievement Domains, the L.O.C.I.T.A.D. (Bradley and Gaa, 1977; Bradley and Teeter, 1977; Bradley and Webb, 1976). The L.O.C.I.T.A.D., by design, separates the more generalized construct of locus of control into three domains, that is, intellectual, social, and personal thus providing a more precise measure. Furthermore, it structurally compliments the two other instruments used in this study by distinguishing specific subscales and in so doing, presenting a multidimensional description of locus of control

orientation.

The construct of internal-external locus of control grew out of Julian Rotter's work with social learning theory (Rotter, 1954). Rotter recognized that reinforcement is more than just a "stamping-in" process and established the dichotomy of internal or external to express the individual's generalized perception of the causal relationship between his own behavior and the response it elicits. Persons who attribute their successes and failures to fate, chance, luck, or powerful others are identified as representatives of an external locus of control orientation. An individual, on the other hand, who perceives events as contingent upon his own behavior, character, or effort and who, thereupon, accepts personal responsibility for what happens to him, demonstrates an internal locus of control orientation (Rotter, 1975).

Internality has been positively related to a number of variables, such as school achievement (Nowicki & Roundtree, 1971; Prawat, Grisson & Parrish, 1979), delay of gratification, popularity, and prejudice (Nowicki & Strickland, 1973). On the other hand, a significant relationship has been established between externality and personality maladjustment (Lombardo and Berzonsky, 1975).

The L.O.C.I.T.A.D. has 48 items, 16 in each domain. The items are evenly divided to measure control orientation for successful or unsuccessful outcomes. Validity was

established through correlation with other locus of control scales. Construct validity is indicated by the scale's capacity to discriminate age related trends and report changes under particular conditions (Bradley & Gaa, 1977; Bradley & Teeter, 1977; Bradley & Webb, 1976).

Bradley and Teeter (1977) computed Kuder Richardson .20 reliability coefficients between .52 and .54 for the three subscales and .75 for the total scale. These reliability figures matched those of Rotter's. Rotter's 29 item scale has reliability figures that cluster around .70 according to split half and Kuder Richardson estimates (Anastasi, 1977). Nowicki-Strickland's forty item scale's reliability figures are no higher. A report of test-retest reliabilities indicated coefficients between .67 and .72. (Prawat, Grissom & Parrish, 1979).

Unobtrusive measures of behavior.

This study also employed two unobtrusive measures of actual inschool behaviors. The school attendance and detention records are kept in the central office of the high school, i.e., the field site. The records for the academic quarter that preceded the treatment period and the academic quarter that contained the treatment period were reviewed privately by the investigator and the number of absences, tardy attendances, and detentions for each subject in every group was computed.

Qualitative Measures

Three instruments were used to collect the qualitative data used to assess the processes of team development among the subjects in the two treatment groups. The intervention period is part of the data collection phase in qualitative research. As such, the investigator prepared anecdotal field notes after each weekly treatment session. The students/subjects, in turn, were encouraged, prodded, and, at times, compelled to complete a short self-report form called a Feedback Sheet between treatment sessions. The Feedback Sheet listed four questions on the front of one page of paper. The questions were evenly spaced to provide enough room for the subjects' written responses. The four questions were: "Describe what we did at our last meeting?"; "Describe how you felt while doing these activities?"; "How do you feel about it today?"; "What did you learn about yourself and other team members?". These questions were designed to tap the subject's abilities of formal recall, expression of feelings (past and present) and interpersonal introspection or awareness.

The third instrument of qualitative data collection was the Team Compact. The Team Compact is a distilled written representation of an extended period of group processing time, or clinical debriefing. During this clinical debriefing each subject identified one specific social behavior that she or he exhibits in a manner that is unhelpful to other team

members. To quote from the preamble of the Team Compact; "In signing this Team Compact we accept responsibility for our actions as individuals and as a team, and we commit ourselves to positively support each team member in a helpful manner" (See Appendix A). These three sources of qualitative data present both individual and group perspectives in the form of; subjective written self-reports (the Feedback Sheets), documented group interaction (the Team Compact), and unstructured observation of individual and group behaviors (the investigator's Field Notes).

Statistics

Quantitative Data Analyses

Two quantitative statistical formats are employed in this study. Each format is particularly suited to the data under analysis. One format fit the analysis of the main experimental effects of this study, in which the data comparing the two experimental groups (the experimental treatment group and the experimental control group) were analyzed according to the changes predicted in Hypotheses I through V.

The simple pre- and posttest design, the randomized sampling procedures, the adequate levels of pretest equivalency between the groups, and the individually stated research hypotheses lend themselves readily to a basic two-sample t test procedure. This test was two-tailed and

conducted at the .05 significance level. Difference scores were computed for each subject on all measures by subtracting the pretest from the posttest score. Though the experimental treatment and control groups' pretest scores were not significantly different, difference scores (rather than just using posttest scores) were calculated in order to isolate the treatment effects.

By handling the data in this manner, the investigator was able to use a t test format to duplicate the finding of the more cumbersome repeated measures analysis of variance. Also, when analyzing some of the subscale scores on the specific test instruments, a powerful multivariate approach was available in t test format, called, the Hotellings T-Squared.

This study also includes two supplementary sets of quantitative analyses: the Control Group Study and the HiLo Studies. Both of these studies were considered ex post facto of the treatment. The Control Group Study analyzed the pretest data from the experimental and comparison control groups in order to measure the effects of the procedure used at the Field Site to refer students/subjects to the treatment program. The three psychometric instruments were used here. Consequently, the same two-sample two-tailed t test procedure used in the study of the Main Experimental Effects fit the data here, in the Control Group Study.

In the HiLo Studies all the treatment subjects, that is, the students/subjects in the experimental and contrast treatment groups, were crossclassified according to their pretest scores. Those five subjects who, pretreatment, scored above (or below) the pretest median in their actual treatment group (thereby demonstrating higher or lower entry levels of the dependent variables) were reassigned to the "Hi" (or "Lo") group, respectively. Then, a one-way analysis of variance procedure was used to compare differences in scores from pre- to posttesting and, in so doing, measure the differential effect of treatment and/or measure on subjects who began the treatment with higher (or lower) levels of interpersonal understanding, internality, or self-esteem. Because the experimental unit changed from human subjects to pretest scores and the comparison groups no longer remained constant across the dependent variables measured by the testing instruments, a one-way analysis of variance was a more fitting format than the t test for this data set. The .05 level of significance remained uniform throughout the study.

Qualitative Data Analyses

The qualitative analysis articulated in this study does not produce quantifiable units that fit neatly into available statistical formats. However, the process of qualitative research discussed here is not totally dissimilar from the

analysis modes used in quantitative research. Miles and Huberman (1984) argue:

[Quantitative researchers], too, must be preoccupied with data reduction (computing means, standard deviations, indexes), with display (correlation tables, regression printouts), and with conclusion drawing/verification (significance levels, experimental/control differences). The point is that these activities are carried out through well-defined, familiar methods, have cannons guiding them, and are usually more sequential than iterative or cyclical. Qualitative researchers, on the other hand, are in a more fluid--and a more pioneering --position. (p. 23)

In order to efficiently analyze the qualitative data contained in the Feedback Sheets, Team Compacts, and Field Notes, the investigator elaborated the five stages of team development into a coding system of twenty separate categories. Within each of the five stages, four criterion behaviors were identified as exemplars of the subject's interactions with four separate social units within the group: (a) other group members, (b) the adult adventure counselors, (c) the implicit and explicit social rules within the group, and (d) his or her own role within the group. The specific exemplars or criterion behaviors can be considered representative of larger domains of social relations: (a) peers, (b) adults/authority figures, (c) society/social rules, and (d) self-concept/the social self, respectively. The Team Development Coding Chart (Figure 3.3) lists the stages, domains, and criterion behaviors of team development. The

Team Development Coding Chart is a first order, theoretical, deductive tool of qualitative data analysis designed to retrieve and organize the research relevant qualitative data in the field notes and archival materials (Feedback Sheets and Team Compact) collected during the intervention period. It is not an instrument of individual evaluation. It is, however, an effective way to measure group trends.

For example, it would be inappropriate to "evaluate" an individual on the basis of one behavioral event. However, if during the fifth treatment session there are five incidences of group members enlarging friendship lines and encouraging lower status members (3a) while at the third treatment session this behavior only appeared once and four times group participants were observed identifying friendship lines and deprecating lower status members (2a) then one can make some tentative judgments concerning the status and changes in peer relations within a developing team.

TEAM DEVELOPMENT CODING CHART

1. Recruitree Stage:
 - (a) Categorizing fellow group members.
 - (b) Evaluating group counselors as professionals.
 - (c) Discerning explicit/implicit group rules.
 - (d) Introducing one's "usual" role in a group.
2. Participant Stage:
 - (a) Identifying friendship lines and deprecating lower status members.
 - (b) Blaming counselors.
 - (c) Challenging explicit group rules.
 - (d) Fulfilling the group's expectations for oneself.
3. Member Stage:
 - (a) Enlarging friendship lines and encouraging lower status members.
 - (b) Attaching to preferred counselor.
 - (c) Embracing explicit/implicit group rules.
 - (d) Reconsidering one's traditional role in a group.
4. Teammate Stage:
 - (a) Equalizing status among members.
 - (b) Accepting both counselors as people.
 - (c) Articulating implicit rules;
responsibly changing inappropriate rules.

(d) Altering one's appointed role in group.

5. Graduate Stage:

(a) Solidifying friendships and group identity.

(b) Restoring student-counselor distance.

(c) Practicing/applying new social rules
outside group.

(d) Defining other undesirable normative
roles for oneself and ways to contribute to
the growth process.

KEY

Social Domains of Team Development

(a) Peers (i.e., group members)

(b) Adults/authority figures (i.e., group
counselors)

(c) Society (i.e., group social rules)

(d) Self-concept (i.e., social self in the group)

Figure 3.3 Team Development Coding Chart

Program Narrative

This adventure group school counseling program in wilderness search and rescue training operated under some extraordinary constraints. To begin with, the program was without funds or equipment. The minimally necessary equipment was bought and/or borrowed by the investigator. The use of a ropes course in a neighboring town was petitioned. The school system provided transportation for three off-campus trips. In short, the financial expenses of this program were minimized and diffused.

The program had to meet two other major considerations. First, the physical risk factor had to be very carefully controlled. The school administration would not have supported a program that might expose the students/subjects to any degree of risk that is significantly greater than the normal experiences of school life, i.e., the highest level of acceptable risk occurs in interscholastic athletics.

The second consideration was staffing. Throughout the treatment phase of this project the investigator was assisted by members of the school staff. Mr. Smith (pseudonym), a special education teacher, provided technical assistance and a helping hand with the contrasting treatment group of behaviorally handicapped students. Ms. Jones (pseudonym), a guidance counselor, co-counselled every session of both treatment groups with the investigator. Ms. Jones is recognized by staff and

students in the high school as an effective counselor. As such, Ms. Jones' participation gave the program more than just her strong commitment and skills, it lent credibility to this innovative approach to school counseling. Ms. Jones provided graceful assurance to any student's, staff's, administrator's, or parent's initial timidity over the program. Finally, to reduce the physical risk to a readily acceptable level the investigator enlisted the participation of a third staff member from the school system. Mr. Toby (pseudonym), the new Earth Science teacher in the junior high school, accompanied the students/subjects on the day long Expedition. None of the students had ever met Mr. Toby before the day of the Expedition. He accompanied them as an unobtrusive adult chaperone and trip photographer. Mr. Toby never revealed his expert outdoors skills to the group.

This was the setting in which the investigator articulated an adventure group school counseling program of wilderness search and rescue team training. The program proposed nothing less than the facilitation of the psychosocial growth and specific behavior change of troubled adolescents in the process of their training as a wilderness search and rescue team! As such, adventure group school counseling search and rescue team training integrated three programmatic aspects: search and rescue skills training, team development, and adventure group school counseling. The program was comprised of ten weekly training sessions, forty

-five minutes each. Though three of these sessions were extended, the students missed less than two days of school, in total.

The three programmatic aspects were represented in each weekly training session by: team development exercise(s), search and rescue skills training, and a clinical debriefing time. Figure 3.4 charts the division of time allotted to each programmatic aspect during each weekly treatment session. The first figure represents the estimated percentage of time spent on the given activity. The second figure, in parenthesis, represents actual time in minutes (approximated to the nearest multiple of five). A meager five minutes was allotted for travel time in and out of the school building. Weeks two, five, and nine occurred off-campus for an hour and onehalf, two hours, and six hours, respectively (not including travel time).

TIME ALLOTMENT CHART			
Week Number	Team Development Exercise	Search & Rescue Training	Verbal Debriefing Time
1	65% (25 min)	10% (5 min)	25% (10 min)
2	80% (70 min)	10% (10 min)	10% (10 min)
3 & 4	40% (15 min)	10% (5 min)	50% (20 min)
5	10% (10 min)	50% (60 min)	40% (50 min)
6	25% (10 min)	25% (10 min)	50% (20 min)
7 & 8	0% (0 min)	75% (30 min)	25% (10 min)
9	10% (30 min)	70% (270 min)	20% (60 min)
10	25% (10 min)	10% (5 min)	65% (25 min)

Figure 3.4 A Time Allotment Chart

The specific search and rescue skills included in the training sessions were divided into three areas: outdoor survival, orienteering, and first aid. Outdoor survival was the first skill area introduced to the group. The subjects were briefly instructed in the proper food, clothing, and shelter for harsh weather. A luncheon trip was arranged to practice these skills outdoors. Orienteering was presented next. The groups practiced compass work (direction), establishing one's pace (distance), running a compass course, and reading a topographic map. Finally, first aid procedures were presented. Small group instruction was provided in managing burns, breaks, bleeding, and bites. An all day Expedition demonstrated mastery of these skills.

Though these skills are considered essential knowledge, the knowledge itself is secondary to the processes of learning utilized in adventure group school counseling. The experience of practicing the technical outdoor skills provided the context for each student/subject to learn more about her/himself and how s/he relates to others. Through the clinical group processing of integrated (and integrative) adventure experiences that provided a significant social service to the community (wilderness search and rescue), it was predicted that individuals would demonstrate measurable changes in specific areas of psychosocial growth and behavior change.

Below is a weekly task analysis for each training session. After stating the session's overall goal and specific counseling objectives, the session's activities are

arranged into three categories: teambuilding exercises, search and rescue (S & R) skill training, and debriefing themes. All teambuilding exercises that appear below, without description, can be found in Rohnke's (1977), Cowtails & Cobras. A task narrative describes what actually happened in each treatment group at each treatment session.

The treatment/intervention period went from Monday, March 14, 1984 to Thursday, May 26, 1984. The two separate treatment groups (experimental and contrast) met on separate days. The experimental treatment group met on Mondays and the contrast treatment group met on Thursdays.

The description of the intervention/treatment program presented below follows a task analysis format in an effort to assure the reader brevity, clarity, and comprehensiveness. Additionally, the task analysis format can accomodate the many levels at which this adventure group school counseling, wilderness search and rescue team training program functions (see Chapter II). This task analysis articulates a general goal statement; identifies specific counseling objectives; details the activities designed to realize the objectives; and describes the actual tasks accomplished in each treatment group at each treatment session.

Week One

Goal: Acquaintance.

Recruitees will get to know and begin to feel comfortable with one another, the counselors, and the curriculum.

Objectives:

To enlist some participation from all recruitees in unfamiliar activities that could arouse some discomfort.

To "unfocus" on success or failure and "refocus" on effort and cooperation.

To generate a supportive atmosphere among recruitees (outlaw "putdowns", i.e., insults and sarcasm).

To establish a pattern of exercise - skill training - debriefing.

Activities:

Teambuilding exercises: blind trust walk, blind and mute return trust walk.

S & R Skills: Clothing - proper and improper clothing for outdoor use.

Debriefing: What is this program all about? Dependence, independence, and interdependence. What is cooperation and teamwork?

Task Narrative:

The first treatment session was the first time the individual recruitees met in their groups. The beginning of each group's first session looked remarkably similar. Each subject entered the gymnasium alone, milled about, checked out

who they knew in the group, and then paired off. With each treatment group (experimental and contrast) the investigator began with his "psychologist" speech, ..."I'm not here to 'shrink' you, I'm here to help you 'expand'... This is not therapy, it is counseling... We are not going to sit around and talk about our intimate problems, we are going to learn more about ourselves by doing things together... In the process of becoming a wilderness search and rescue team we will each learn which of our behaviors hinder and which help the team accomplish its goals... In nine weeks you will be taking a day long Expedition up and over Mt. Meguntacook - by yourselves... No less important than all the outdoor skills you will need to learn, you will also need to know how to work together as a team. Therefore, we will also be doing team-building exercises each week..." After a few words about proper outdoor clothing and hypothermia, the subjects paired off for a trust walk. One person in each pair donned a blindfold and his partner guided him out of the school building and down the road. At the end of the road, the partners switched roles. On the return trip the "guide" was not allowed to speak. When we got back inside the school building we discussed our experiences.

In the experimental treatment group one pair of boys had taken turns guiding each other into obstacles and laughing. We discussed how it (might have) felt to second guess your partner in order to avoid the next bump or stumble that he was

leading you toward. Then we compared that experience with the experiences of those who felt their partner was there to help them avoid hazards. When the contrast treatment group did their trust walk, no one deliberately hurt her partner. This group of, typically, more overtly aggressive students proceeded with caution and concern. With both groups we discussed the competing feelings of fear and trust.

Week Two (An afternoon field trip to a Ropes Course)

Goal: Risk-taking and Trust.

Participants will be willing to take some risks and entrust their physical and emotional safety to other participants.

Objectives:

To involve all participants verbally and physically in activities that might arouse some fear.

To begin to develop trust among participants through a graduated series of trust building activities.

To recognize the hidden strengths of each participant.

Activities:

Teambuilding exercises: All Aboard, Circle Pass and Mohawk Traverse.

S & R Skills: Food. Use of campstove, unhealthy and

healthy foods, prepare healthy snack.

Debriefing: "Macho Man" versus the "Weaker Sex", supportive versus "putdown" behavior. Introduce Feedback Sheets.

Task Narrative:

Each team had 90 minutes on the Ropes Course. The issues that arose with the experimental treatment group were: the various levels of comfort with physical contact within the group, male rowdiness and their need to "show-off", and the trustworthiness of some group participants. The issues that arose with the contrast group were: How did it feel to fall off the wire (on the Mohawk Traverse) and make everyone else return to the start?; Who stuck with the group?; Who ran ahead?; Who lagged behind?; and Who were the leaders? In each group there appeared a greater willingness to talk and listen to fellow participants.

Week Three

Goal: Trust and Communication

Participants will effectively communicate thoughts and feelings to other participants through verbal and behavioral self-expression.

Objectives:

To encourage participant's communication of personal needs.

To increase each participant's level of commitment to the group.

To heighten awareness of each other's verbal and non-verbal cues.

Activities:

Teambuilding exercises: The Tangle.

S & R Skills: Shelter (tents, tarps, and bags).

Debriefing: "The whole is greater than the parts".

How can we accomplish more as a group than we can individually.

Task Narrative:

The experimental treatment group worked through The Tangle with considerable speed and agility. When given the challenge of setting up the tarp as a shelter, several of the women went to work while the rest of the group wandered about. After five minutes, the investigator yelled, "Freeze!", and asked everyone to look where they were, what they were doing, and if they were helping the group accomplish the appointed task. While there was little talk, their body language communicated recognition. The investigator drew attention to this.

The contrast treatment group was unable to untangle themselves. Still, they persevered despite frustration and physical discomfort. The investigator asked the loaded question, "How could this be done easier?". Someone soon suggested less people and they broke into two smaller groups and started over. After a few successful small group Tangles they formed a big Tangle again. Despite their inability to

disentangle this second time, they all participated in a discussion of how they had communicated with each other and the different leadership styles presented by various group members.

Week Four

Goal: Trust and Communication.

Objectives:

To dispel tension and anxiety over growing personal commitments to the group through positive and fun activity.

Activities:

Teambuilding exercise: Trust Falls and Yurt Circle.

S & R Skills: Review of campstove mechanics.

Debriefing: Focus on Feedback Sheets and the need to communicate effectively.

Task Narrative:

With each treatment group, the investigator began this session with a harangue about the Feedback Sheets and refused to continue the session's activities until everyone who had not handed in a Feedback Sheet for last week completed one then and there. Ten minutes into the session the harangue was over and the Feedback Sheets were completed. Each group did two-person Trust Falls after being instructed on the proper catching techniques. A few team members expressed concern and

reluctance, whereupon, one male in each group spontaneously declared his total lack of fear, his complete trust, and then fell, like a lead weight, into the arms of his partner. Imbued with trust, everyone began "falling". Each group reviewed the outdoor skills learned to date in anticipation of next week's trip off-campus.

Week Five (Extended session at State Park)

Goal: Communication and Decision-making.

Team members will make responsible decisions and solve technical and social group problems through communication, cooperation, and compromise.

Objectives:

To recognize group's natural tendency to depend on established roles and strengths.

To identify leadership and followership styles and the delicate balance of power within the group.

To encourage group to trust lower status members with positions of responsibility.

To facilitate a group environment in which self-examination will be mutually supported by members.

Activities:

Teambuilding exercise: Group walk in the pouring rain sharing an 8' X 8' tarp (everyone has to stay dry).

S & R Skill initiative: Fifteen dollars, two campstoves,

two pots, canteens, cups, spoons, two tarps, rope. The challenge? To organize effectively enough to set a menu, buy supplies, cook lunch, set up shelter and complete team-building exercise in less than two hours.

Debriefing: The "yapper" and the "nodder", the "chooser" and the "chosen": how do I express myself in a group? and How does this group make decisions? Introduce Team Compact.

Task Narrative:

The two treatment group had not met for two weeks. The contrast treatment group skipped a week because the investigator was ill. The experimental group skipped a week because of school vacation. Each group had significantly different experiences at this session. The critical difference was the torrential rains that fell nonstop during the experimental treatment group's session. This group spent the entire two hours, except for a ten minute teambuilding exercise, inside a sheltered picnic area. The conditions imposed by the weather led to a more direct, confrontational debriefing. They were able to fashion a strong Team Compact. The fair spring weather that prevailed for the contrast treatment group sent their blood rushing and the group often scattered in many directions. For this group, the debriefing time focused on distractability and group cohesion. The Team Compact was only introduced before time ran out.

Week Six

Goal: Communication and Decision-making.

Objectives:

To create a positive atmosphere for completing the Team Compact.

To heighten group supportiveness.

To practice communication skills.

Activities:

Teambuilding exercises: Team decides how to form "expert" subgroups of Orienteers, Cooks, Medics, and Initiative Leaders.

S & R Skill: Introduce compass and topographic map.

Debriefing: Review Team Compact process and focus on contracted behaviors manifested during team decision-making.

Task Narrative:

The experimental treatment group appeared lethargic and unresponsive after their intense involvement last week in the rain, forging a Team Compact. Enthusiasm didn't surface until the investigator announced the date of the Expedition, just three weeks away. They, like the contrast treatment group, employed the volunteer process for deciding how to divide into expert subgroups. Any time two members overlapped responsibilities one quickly and amiably picked another area.

The session with the contrast treatment group was noticeably more "electric". The team members supported their teammates disclosures of deeper feelings in the process of articulating their Team Compact.

Week Seven

Goal: Communication and Decision-making.

Objectives:

To accept a trial and error approach to solving difficult problems, i.e., to risk making mistakes.

To cope with failure and frustration through the appropriate expressions of need and support.

Activities:

Teambuilding exercise: None.

S & R Skill: Break into subgroups and develop specific areas of expertise.

Debriefing: Focus on each team member's performance of contracted behavior. Formalize (sign the written) Team Compact.

Task Narrative:

The experimental treatment group formalized their Team Compact with witnessed signatures. The investigator and co-counselor raced around the gymnasium, each trying to train two specialty subgroups simultaneously. Consequently, separate

meeting times were arranged with each subgroup so stronger skills could be developed. The contrast treatment group focused exclusively on their specialty skills. Although the subgroups trained diligently, the staff decided afterwards that there was not enough time to develop sufficient skill levels in the special needs students and chose to reduce the degree of difficulty of the Expedition, rather than relying exclusively on the abilities of the three higher functioning subjects/teammates.

Week Eight

Goal: Social Responsibility.

The team will accurately assess their individual strengths and weaknesses while positively supporting each member's efforts towards positive behavior change.

Objectives:

To begin to wean team from its overdependence on counselors.

To identify self-monitoring capability of team.

To redefine leadership and followership.

Activities:

Teambuilding exercise: None

S & R Skill: More speciality subgroup training.

Debriefing: To the larger group, each subgroup presents its plan and demonstrates its skills for the approaching Expedition.

Task Narrative:

For both groups, this was the final meeting before the Expedition. The contrast treatment group signed their Team Compact without pomp or circumstance. Then, in both groups, the specialty subgroups briefly presented their plan for the Expedition and displayed their new expertise before the team. In both groups, the teambuilding initiative leaders chose not to reveal the challenge that awaited the group atop the mountain. Finally, both groups reached different decisions concerning what to do with their one teammate who had not participated in the specialty skill training sessions and skipped a make-up session with the investigator. The experimental treatment group decided to give their teammate another chance to "make-it-up" with the investigator. The contrast treatment group decided that their teammate had behaved irresponsibly and lost the privilege to participate in the Expedition. When the errant team member from the experimental treatment group failed to attend the second make-up session, the investigator unilaterally decided to exclude him from the Expedition. Later, it was the consensus of the program staff that there would have been greater therapeutic potential in letting the errant teammates participate in the Expedition and, therein, throw the issues of personal and social responsibility into higher contrast.

Week Nine (Full day Expedition)

Goal: Social and Personal Responsibility.

Each teammate will persistently resist the frustrations encountered while working towards group or personal goals.

Objectives:

To demonstrate patient, concentrated, and persistent group effort.

To reinforce positive support among team members.

To recognize one's personal responsibility for the success or failure of a group activity.

Activities:

Teambuilding exercise: The Wall (the team has to negotiate a sheer 10 foot cliff at the top of the mountain, safely).

S & R Skill initiative: The Expedition. Team departs with maps and compass and a challenge - to orienteer to the top of the mountain, follow compass course to locate lunch supplies, cook lunch, do teambuilding exercise, debrief, pack equipment, and orienteer down the other side of the mountain - all by themselves, i.e., without counselor supervision. The counselors prepare a sumptuous meal for the team to eat on the other side of the mountain.

Debriefing: Discuss experiences over supper, focus on specific behaviors.

Task Narrative:

The two treatment groups had significantly different experiences on the mountain. The experimental treatment group climbed the mountain on Wednesday, the contrast treatment group climbed on Thursday. Both Wednesday and Thursday were clear, cool, Spring days. The weather was not the critical factor. Injury and discouragement distinguished the two groups.

The experimental treatment group began their climb worried about the blackflies. Their ascent was steady and solemn. After they completed the first leg of their trip, the blackflies descended on them. Some of them hid beneath the tarp while lunch was prepared and eaten in order to avoid the bugs. On the second leg of their trip, to the top of the first set of peaks, they were frustrated from several orienteering errors. Eventually, Mr. Toby intervened and lectured on trail reading. When they finally reached the top of the lower peaks some of the women felt overcome by the blackflies. Then, a teammate badly sprained her ankle. After some indecisive discussion among the team, Mr. Toby decided that they needed to return to the base camp. One teammate found a walking stick, another offered his shoulder to the limping teammate. Their descent was quiet and quick. They were sullen and accusatory at the debriefing. They perseverated on Mr. Toby, angry at his "interference". They were protective of each other and blameful of Mr.

Toby.

The contrast treatment group, on the other hand, had an exuberant experience on the mountain. Ms. Jones accompanied them, along with Mr. Toby. The two chaperones monitored each other's interventions. The contrast treatment group reported managing every aspect of the Expedition with complete success and the chaperones confirmed the group's testimony. They self-corrected orienteering errors. They debriefed their teambuilding exercise thoughtfully. They explored caves and spotted eagles overhead. They prepared a hearty meal and competently managed a case of hyperventilation. At debriefing, they uncritically evaluated each other's behavioral objectives as stated in their Team Compact. The experience had been so positive and the team spirit was so strong that no one dared to utter a critical word.

Week Ten

Goal: Social and Personal Responsibility

Objectives:

To maintain each graduate's receptiveness to new skills acquisition after completion of the training program.

To foster an attitude of personal self-reliance and strength.

Activities:

Teambuilding exercise: Slide presentation of the

Expedition.

S & R Skill: Briefly review topographic map reading, pinpointing the exact route they had traveled.

Debriefing: Focus on specific behavior changes. Identify ways to continue the process of personal growth and group support.

Task Narrative:

Each group's final session was, predictably, colored by their experiences on the mountain. The experimental treatment group had evolved into a tight team in reaction to their failure. They continued to blame Mr. Toby and clearly marked the boundaries between themselves and intervening adults, including the counselors. When the investigator encouraged them to vent their anger, they gave him a long, hostile, and silent stare. They felt patronized. When he challenged them to examine their own responsibility for their Expedition's successes and failures they offered some grudging acknowledgements. Their mood brightened after viewing the slides and when the investigator asked them how they would like to terminate their Team Compact one of them answered "[Let it be], we're still working on that stuff."

The contrast treatment group was still exhilarated over their Expedition. They would permit no more of a critical review of their behavior than the other group. Their protectiveness, however, was more positively grounded than was

the defensiveness of the experimental treatment group. Nonetheless, an equally strong team identity had emerged. They cheered when the investigator tore their Team Compact into tiny pieces and then threw the pieces high in the air. They were effusive when a typically quiet teammate shared a poem she had written about the Expedition.

C H A P T E R I V

RESULTS

The overall question of this study is: can a systematic program in adventure group school counseling yield specific and measurable outcomes? The wilderness search and rescue team training program, applying an adventure group school counseling model did, indeed, provide specific and measurable outcomes. There is evidence of specific and significant psychometric/psychological changes, in the expected direction, among those trained. There is also evidence of specific, but not statistically significant, school performance changes among those trained. Finally, there is qualitative evidence of movement through the stages of team development among those trained. This chapter will examine these specific and measurable outcomes in detail.

The first section of this chapter examines some of the unique design features of this study through an analysis of pretest data, identified as the Control Group Study. The second section of this chapter examines the Main Experimental Effects of the research project through an analysis of the results of two sample t tests performed on the data relevant to the first five research hypotheses. The third section of this chapter is a posthoc study that explores the issue of differential change among trainees.

The posthoc study is called the Hi-Lo Studies, so named because the pretest scores of the two treatment groups are reorganized into two new groups, "High" and "Low" groups, in relation to the median scores on each pretest. The "High" groups include all the treatment subjects who scored above the pretest median in their original group on the specific measure under study. The "Low" groups include all the treatment subjects who scored below the pretest median in their original group on the specific measure under study. An analysis of posttest outcomes from these new laboratory groups addresses the question: Is there a significant outcome difference between those subjects who entered treatment with, relatively, high or low psychosocial skills, i.e. pretest scores? The fourth and final section of this chapter is, Qualitative Analysis of Changes in Team Development (Hypothesis VI).

Control Group Study

The larger study reports on the model building, field testing, and program evaluation of an adventure group school counseling program at a Northeastern public High School. Both process and product happened in an active school setting and a balance between the demands of systematic research and the realities of school practice had to be struck. The simple before and after control group research design configuration needed to be changed slightly to meet the

practical needs of a public high school setting (See Methodology Chapter). The section below analyzes pretest data as a crosscheck of the informal referral and randomization process.

Pretest scores for the experimental control group are first compared to those of its match (the experimental treatment group) and then to its own control (the comparison control group, a sample from the general student population). Each comparison uses a two sample t test procedure that is two-tailed and conducted at a 5% significance level. The groups are compared on the three independent variables measured by psychological testing instruments, i.e., the pretest scores from the Tennessee Self-Concept Scale (T.S.C.S.), Selman Interpersonal Awareness Scale (S.I.A.S.) and Locus of Control in Three Achievement Domains (L.O.C.I.T.A.D.). These three variables were chosen because the two other quantifiable measures included in the evaluation, school attendance and behavior, are historical and formative by nature while these three variables were actually measured at the pretesting sessions that immediately preceeded treatment.

Table 4.1 lists the mean scores, standard deviation and error scores, and significance levels when comparing the experimental treatment and experimental control groups on pretest scores. As a contrast, Table 4.2 compares the experimental control group to the comparison control group on

pretest scores using the same computations as the preceeding table. The results uniformly fall in the expected direction, that is, at pretest, consistently higher scores from the comparison control group (a sample from the general student population) and comparatively lower, but statistically equivalent, scores among the two experimental groups (samples from the pool of underachievers).

Table 4.1

Control Group Study: t-Test Comparisons of the Experimental Groups' Pretest Scores on the T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D.

V	Group	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility
TSCS	X Treat	10	307.5	53.490	16.915	0.0150*	0.882*
	X Cntrl	10	310.3	23.046	7.288		
SIAS	X Treat	10	215.6	33.994	10.697	0.120	0.909
	X Cntrl	10	217.1	22.698	7.178		
LOCI	X Treat	10	31.3	3.743	1.184	0.06	0.956
	X Cntrl	10	31.4	4.169	1.318		

*, a separate variance estimate was calculated for the "t" and probability scores because the F-value, a measure of between and within group variances, had a significant 2-tail probability level of 0.020. The separate variance estimate, as such, controls for the significant differences between the experimental treatment and control groups' Standard Deviation and Error figures on the TSCS at pretest.

Table 4.2

Control Group Study: t-Test Comparisons of the Experimental and Comparison Control Groups' Pretest Scores on the T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D.

V	Group	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility
TSCS	Exp Cntrl	10	310.3	23.046	7.288	-1.030	0.315
	Comp Cntrl	10	322.6	29.707	9.394		
SIAS	Exp Cntrl	10	217.1	22.698	7.178	-2.720	0.014
	Comp Cntrl	10	244.4	22.147	7.003		
LOCI	Exp Cntrl	10	31.4	4.169	1.318	-1.370	0.187
	Comp Cntrl	10	33.7	3.268	1.033		

The very high levels of correspondence between the two groups of underachievers (the experimental treatment and experimental control groups) is a stark contrast to the generally low correlation and, at certain points, significant statistical differences between the two control group (the comparison control group from the general student population and the experimental control group from the referred student population of underachievers). These results indicate the informal teacher referral process did isolate a distinctly different subpopulation and the experimental treatment and control groups were not statistically dissimilar at pretest on these three variables.

Study of the Main Experimental Effects

The main effects of this study are predicted by the first five research hypotheses. Each hypothesis, in turn, is tested with a two sample t test procedure. The test is two-tailed and conducted using the 5% significance level. The investigator computed difference scores for each subject on all measures by subtracting the pretest from the posttest score. The difference score thus represents the net measurable change of each subject at the end of the intervention period and helps to isolate the treatment effects. In order to insure a higher reliability only total scores from each of the three psychological testing instruments are used to evaluate the hypothesized results. However, this section also includes the results of the "Hotellings T-Squared" procedure on the subscales of the T.S.C.S. and L.O.C.I.T.A.D. This procedure performs a multivariate t-test analysis on the subtests of each subscale. If the "Hotellings" finds a significant level of multivariate interaction, then univariate analyses comparing individual subtest are justified. Such univariate comparisons permit an identification of more specific loci of interaction. The subjects used to measure the main effects of this study were from the experimental treatment group and its match, the experimental control group.

Hypothesis I

Participation in adventure group school counseling will not significantly change the self-concept of the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by pre-/post- administrations of the Tennessee Self Concept Scale.

This hypothesis is tested by a pre- and post-administration of the Tennessee Self-Concept Scale (T.S.C.S.). The T.S.C.S. provides a global measure of self_esteem, called the Total Positive Score. The Total Positive Score is the single most reliable and important score on this instrument. A statistically significant difference is found between the experimental treatment and control groups' Total Positive Scores on the Tennessee, thus rejecting the null hypothesis stated above (See Table 4.3). Simply, the adventure group school counselees significantly increased their total sense of self-esteem compared to a matched group of their peers who did not participate in the training (see Figure 4.1).

The Total Positive Score on the T.S.C.S. consists of two subscales, Row and Column, divided into eight individual subtests (see Chapter III). The Row subscale includes the Identity, Self Satisfaction, and Behavior subtests. The Column subscale includes the Physical Self, Moral-Ethical Self, Personal Self, Family Self, and Social Self subtests.

Table 4.3

Hypothesis I: t-Test Comparison of Changes in
Self-Esteem (the Total Positive Score
on the T.S.C.S.).

Group	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility
Treatment	10	18.40	22.70	07.18	-2.98	0.008
Control	10	-06.30	13.07	04.13		

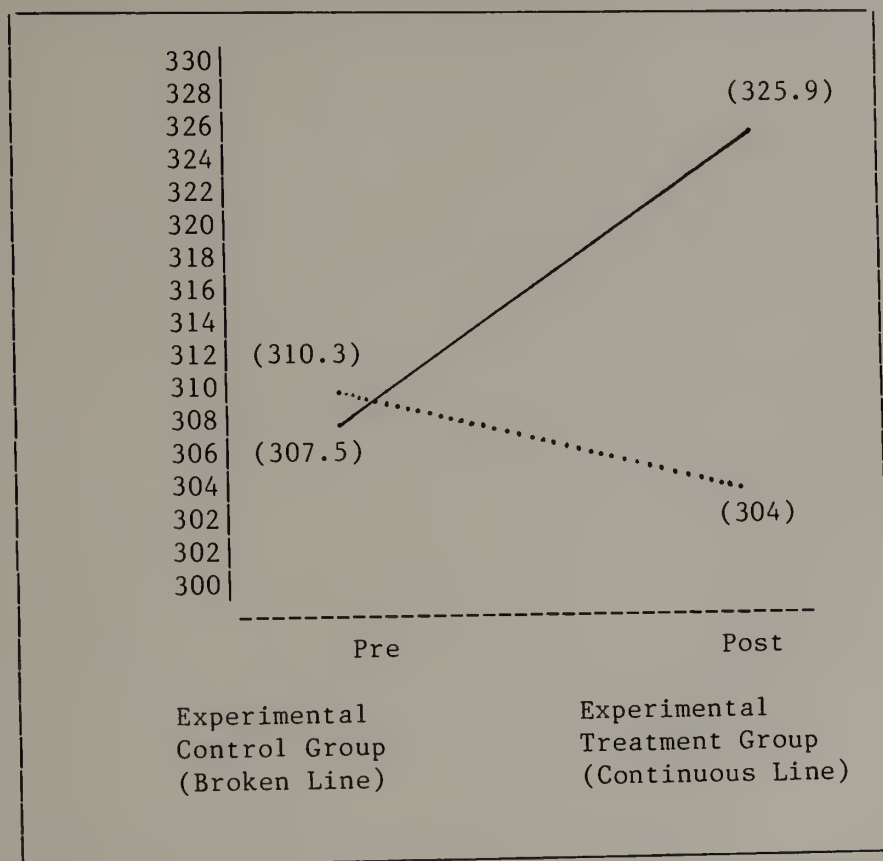


Figure 4.1 Changes in Each Experimental Group's
Mean Total Positive Score on the T.S.C.S.

The investigator computed a "Hotellings T-Squared" procedures on both subscales (Row and Column). The "Hotellings" provides, first, a multivariate analysis of the interaction within each subscale and, then, univariate analyses of each subtest. The findings indicate that neither set of multivariate scores meet the .05 standard of significance. Tables 4.4 and 4.5 provide both multivariate and univariate figures. The high levels of significance indicated on some of the univariate analyses of individual subtests cannot be considered significant findings because the overall interaction between the subtests within each subscale did not attain the .05 level of significance.

There is one other subtest on the T.S.C.S. and it is not associated with the Total Positive Score. It is identified as the Self-Criticism Score. On this single subtest the difference scores of the experimental treatment and control groups reach statistical significance (See Table 4.6 and Figure 4.2). Despite the low number of test items and, subsequently, the subtest's lower reliability, the results are striking. Minimally, they indicate the possibility that adventure group school counseling might significantly impact the counselee's capacity to examine him or herself in a less defensive, more open and honest manner.

Table 4.4

Hypothesis I: "Hotellings T-Squared" Comparison of Changes
in Column Subscale Scores of T.S.C.S.

Subscale Name	Group	n	Univariate Scores					Multivariate Scores	
			M	S.D.	S.E.	t	2-tail probab- ility	f ratio	f probab- ility
Physical	Trtmt	10	5.50	6.485	2.051	-2.03	0.057		
	Cntrl	10	0.80	3.360	1.062				
Moral	Trtmt	10	1.00	5.696	1.801	-1.42	0.173		
	Cntrl	10	-2.60	5.641	1.784				
Personal	Trtmt	10	1.90	5.896	1.865	-1.68	0.110		
	Cntrl	10	-2.40	5.542	1.752				
Family	Trtmt	10	4.20	6.070	1.919	-2.45	0.025		
	Cntrl	10	-1.70	4.620	1.461				
Social	Trtmt	10	5.80	5.160	1.632	-3.07	0.007		
	Cntrl	10	-0.40	3.777	1.194				
Overall Significance								2.4191	0.0884

Hypothesis II

Participation in adventure group school counseling will not significantly change the complexity of the experimental treatment subjects' reasoning about interpersonal relationships, in contrast to the experimental control subjects', as indicated by pre-/post-administration of the Selman Interpersonal Awareness Scale.

Table 4.5

Hypothesis I: "Hotellings T-Squared" Comparison of Changes in Row Subscale Scores of T.S.C.S.

Subscale		Univariate Scores						Multivariate Scores	
		<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility	<u>f</u> ratio	<u>f</u> probab- ility
Identity	Trtmnt	10	4.80	9.175	2.901				
	Cntrl	10	-4.00	4.784	1.513	-2.69	0.015		
Self Satis- faction	Trtmnt	10	8.80	9.920	3.137				
	Cntrl	10	-3.30	8.070	2.552	-2.99	0.008		
Behavior	Trtmnt	10	4.80	6.015	1.902				
	Cntrl	10	1.00	7.874	2.490	-1.21	0.241		
Overall Significance								2.8855	0.0681

Table 4.6

Hypothesis I: t-Test Comparison of Changes in the Ability to Self-Criticize (the Self-Criticism Score on the T.S.C.S.).

<u>Group</u>	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probability
Trtmnt	10	2.7	2.36	0.746		
					-3.36	.003
Cntrl	10	-0.8	2.30	0.727		

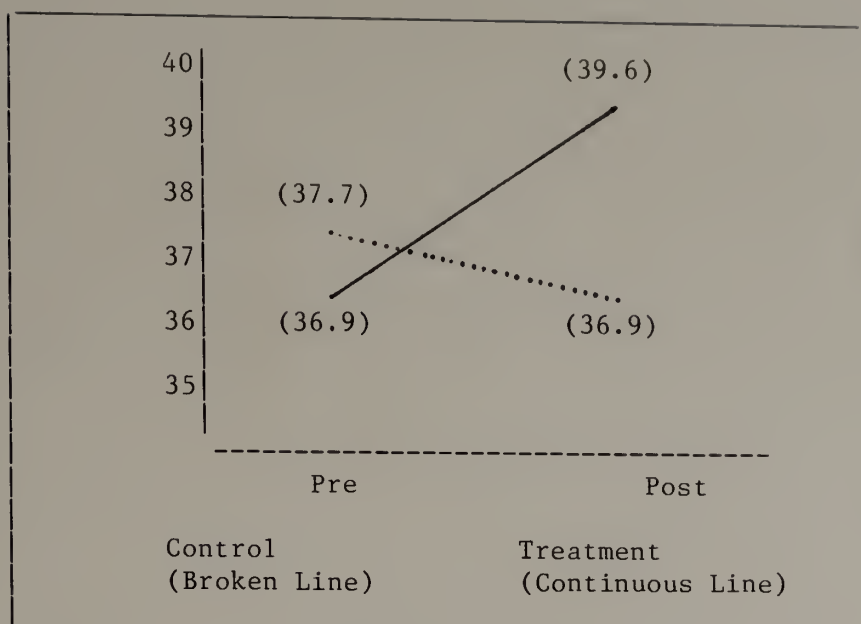


Figure 4.2 The Change in Each Experimental Group's Mean Self-Criticism Score on the T.S.C.S.

Hypothesis II was tested with a two sample t test of the difference scores (net change pre- to post-) for each member of the experimental treatment and experimental control groups. The test was two-tailed and conducted using the .05 significance level. Again, a conservative approach was adopted and only the highly reliable Interpersonal Understanding Maturity Score (IMS) was used for each subject. Some protocols did not contain enough scorable data for every single issue. As such, the number of individual issue scores collected within each group was incomplete. Therefore, only the weighted average score of the IMS was subjected to statistical analysis. Additionally, this more global score provides a continuous measure of interpersonal awareness rather than a single stage number.

The results demonstrate a statistically significant difference between the two groups on this measure. The experimental treatment group shows a positive change toward more complex social reasoning while the experimental control group shows little growth in their complexity of social reasoning (See Table 4.7). Therefore, the null hypothesis can be rejected. Figure 4.3 graphically displays the change in group mean scores over the intervention period.

Table 4.7

Hypothesis II: t-Test Comparison of Changes in Social Reasoning
(the Interpersonal Maturity Score of the S.I.A.S.)

Group	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility
Treatment	10	37.5	32.23	10.19	-2.41	0.027
Control	10	4.40	29.01	9.18		

Hypothesis III

Participation in adventure group school counseling will not significantly change the level of the experimental treatment subjects' internal locus of control, in contrast to the experimental control subjects', as indicated by pre-/post-administrations of the Locus of Control In Three Achievement Domains.

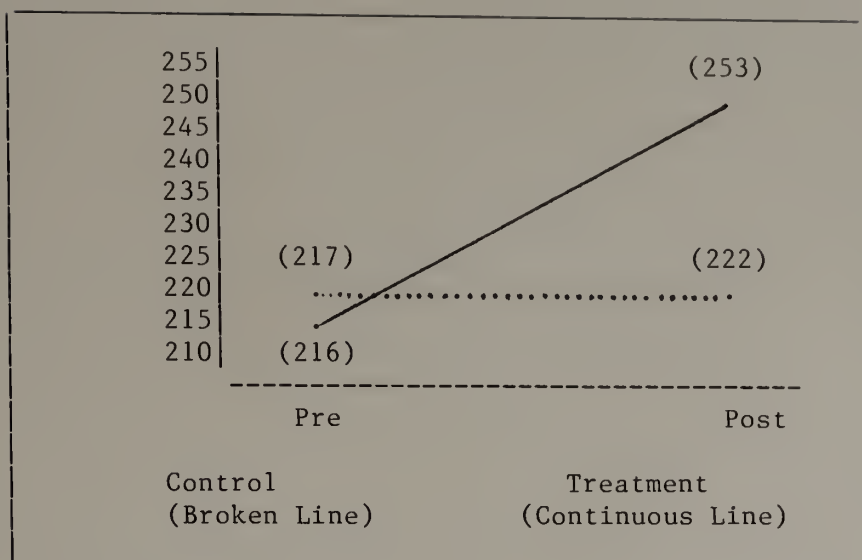


Figure 4.3 Changes in each Experimental Group's Mean Interpersonal Maturity Score on the S.I.A.S.

Hypothesis III was tested with a two sample t test of the difference scores for each member of the experimental treatment and control groups. The test was two-tailed and conducted using the .05 significance level. As on the T.S.C.S., the total score was tested independently and then a "Hotellings T-Squared" was run as a multivariate analysis of the subscales.

The results demonstrate a statistically significant difference between the two groups on this measure, with the experimental treatment group showing a positive change towards greater internality and the experimental control group showing almost no growth (See Table 4.8). Figure 4.4 graphically displays the change in group mean scores over the intervention period. The null hypothesis can be rejected.

Table 4.8

Hypothesis III: t-Test Comparison of Changes in Locus of Control (the Total Score on the L.O.C.I.T.A.D.).

Group	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility
Treatment	10	2.9	3.14	0.99	-2.52	0.022
Control	10	-0.1	2.08	0.66		

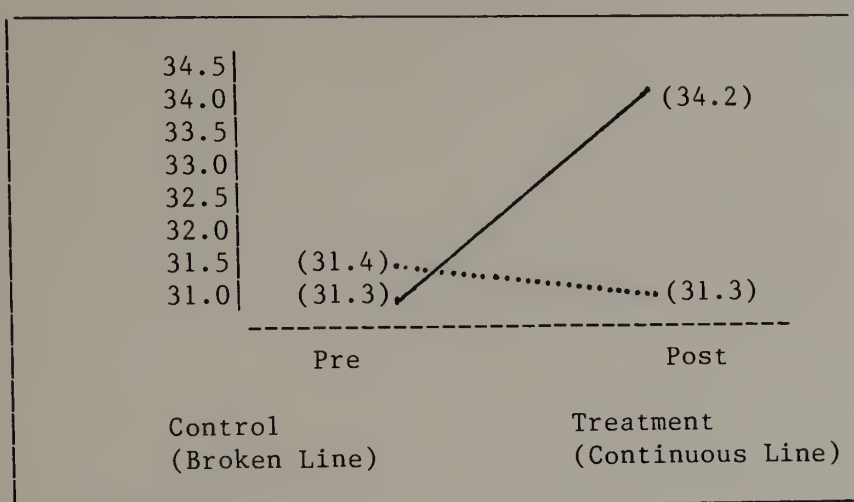


Figure 4.4 Changes in each Experimental Group's Mean Total Score on the L.O.C.I.T.A.D.

The results of the "Hotellings" do indicate a significant level of interaction among the subscales. However, the univariate analyses of each subscale could not identify any one specific domain that is significantly and/or singularly influenced by the intervention. Indeed, the univariate scores fall in a direction that is a direct inversion of what might be expected! It can be concluded that adventure group

counseling affects locus of control in a manner that is more generalized than domain specific (See Table 4.9).

Table 4.9

Hypothesis III: "Hotellings T-Squared" Comparison of Changes in Subscale Scores on the L.O.C.I.T.A.D.

Subscale Name	Group	n	Univariate Scores					Multivariate Scores	
			M	S.D.	S.E.	t	2-tail probab- ility	f ratio	f probab- ility
Intel- lectual	Trtmt	10	0.70	1.494	0.473	-1.88	0.076		
	Cntrl	10	-0.50	1.354	0.428				
Physical	Trtmt	10	1.50	2.415	0.764	-1.55	0.138		
	Cntrl	10	0.10	1.524	0.482				
Social	Trtmt	10	0.70	2.710	0.857	-0.36	0.720		
	Cntrl	10	0.30	2.163	0.684				
Overall Significance								3.3116	0.0470

Hypothesis IV

Participation in adventure group school counseling will not significantly change the occurrence of school absenteeism and tardiness by the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school attendance records.

Hypothesis IV is tested with a two sample t test of the

difference scores. A difference score was calculated for each subject by subtracting the number of times the subject was absent from school or tardy to school or class during the academic quarter when the intervention occurred from the number of absences and tardy attendances during the academic quarter that immediately preceded the intervention period. Again, the test was two-tailed and conducted using the .05 significance level.

The raw data here differs from the raw data collected with the three psychological testing instruments. Firstly, it is dichotomous by nature (the subject is either absent or present and tardy or on-time) as opposed to indicating relatively more or less social awareness or self-esteem. Secondly, the data was collected in an unobtrusive manner (the investigator privately perused the school records) as opposed to the group testing with the S.I.A.S., T.S.C.S., and L.O.C.I.T.A.D. Finally, the period of time under scrutiny is different. Here, the records (of specific school behaviors) kept during the intervention period itself are compared to the same records of the academic quarter that immediately preceded the intervention. This time frame is quite different than the two hours of individual psychological assessment that occurred shortly before and after the intervention period. The difference scores from the S.I.A.S., T.S.C.S., and L.O.C.I.T.A.D. measure summative changes immediately after treatment. The effects of the

treatment on school attendance is more formative by nature.

Because this data is discrete and separate two independent t tests were run on the attendance data, one for absences and one for tardiness (See Table 4.10). The statistics generate contradictory findings. While neither approaches the level of significance, the mean number of absences for the experimental treatment group dropped in the predicted direction, but their number of tardy attendances actually rose during the treatment period. These results will be discussed more fully in the Discussion Chapter. As they stand, the results cannot support a rejection of the null hypothesis.

Table 4.10

Hypothesis IV: t-Test Comparison of Changes in School Absence and Tardy Attendance.

V	Group	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility
Absent	Treat	10	-0.20	5.13	1.62	0.51	0.622
	Cntrl	10	0.70	2.32	0.74		
Tardy	Treat	10	0.80	2.25	0.71	-0.3	0.766
	Cntrl	10	0.40	3.53	1.12		

Hypothesis V

Participation in adventure group school counseling will not significantly change the occurrence of punishable

misbehavior in school by the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school detention records.

The data collected to test Hypothesis V is of the same nature as that used to evaluate Hypothesis IV and was subjected to the same set of statistical procedures. The results demonstrate a statistically nonsignificant difference between the two groups on this measure (See Table 4.11). While the experimental treatment group exhibit no change in the average number of detentions they accumulated during the intervention period, the experimental control group's mean number rose slightly. The results point in the predicted direction, but do not permit a rejection of the null hypothesis.

Table 4.11

Hypothesis IV: t-Test Comparison of Changes in the Number of Detentions.

Group	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t</u>	2-tail probab- ility
Treatment	10	0.0	1.49	0.47	1.55	0.137
Control	10	1.2	1.93	0.61		

Hi-Lo Studies

The following studies are aptly named. The term, Hi-Lo, describes a laboratory manipulation of the raw data

generated by the psychometric assessment instruments used to test Hypotheses I - III, that is, the total scores from the T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D. Instead of comparing the experimental treatment group to the experimental control group, the comparison groups here were reorganized from within the experimental treatment and contrast treatment groups (the two groups that actively participated in the adventure group school counseling wilderness search and rescue team training programs). On each instrument, the pretest scores of the twenty trainees from the two treatment groups were separated into four groups according to whether the individual subject's pretest score fell above or below his/her original groups' median score on that specific measure. Then the five lowest pretest scorers on the S.I.A.S., for example, in the contrast treatment group were combined with the five lowest pretest scorers on the S.I.A.S. in the experimental treatment group and, together, were identified as the ten subjects in the "Lo" S.I.A.S. group. The other, upper halves of the original groups became the "Hi" S.I.A.S. group (See Figure 4.5).

After the new groups were arranged in the computer, the difference scores (post- minus pre-) for each subject were plugged into a one-way analysis of variance procedure with the standard .05 significance level in order to test a new, posthoc hypothesis. The new posthoc hypothesis states: Participation in adventure group school counseling will

not significantly change a subject who enters the program with, comparatively; (a) lower self-esteem, (b) more simplistic reasoning about interpersonal relationships, or (c) externalized loci of control in contrast to a subject who enters the program with, comparatively; (a) higher self-esteem, (b) more complex social reasoning skills, or (c) internalized loci of control as indicated by pre-/post-administrations of the T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D. respectively.

The "LO" Group		The "HI" Group	
Lowest five pretest scores on the S.I.A.S. in the experimental treatment group	G R P	Highest five pretest scores on the S.I.A.S. in the experimental treatment group	
-----	M	-----	
Lowest five pretest scores on the S.I.A.S. in the contrast treatment group	E D I A N	Highest five pretest scores on the S.I.A.S. in the contrast treatment group	

Figure 4.5 Reorganizing The Raw Data From The Two Treatment Groups Into "Hi" and "Lo" Groups.

This null hypothesis predicts that the participants who enter the adventure group school counseling program with comparatively more negative self-concepts, for example, will not increase in self-esteem at a faster rate than their teammates who entered the program with comparatively stronger, more positive self-concepts. In order to reject

this null hypothesis the data must demonstrate that upon posttesting those who had begun with lower self-esteem have significantly more positive changes in their self-concepts than their teammates who had begun the program with stronger senses of self.

While casually reviewing the raw data the investigator observed a number of rather dramatic and positive changes in individual test scores. Upon closer examination, it appeared that those subjects who began with the lowest scores made the greatest gains. Thus the Hi-Lo studies were conceived. The investigator then crosschecked the subjects into the "Hi" and "Lo" groups and ran one-way analyses of variance on three dependent variables, the T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D.

A statistically significant difference was found between the "Hi" and "Lo" groups on one variable. The subjects who had entered the treatment program with, comparatively, lower social reasoning skills demonstrated a significantly greater increase in these skills after treatment when compared to the subjects who had entered the treatment program with, comparatively, higher social reasoning skills. The results of analyses on the other two variables, (self-concept and locus of control) fall in the expected direction: those subjects who entered the treatment program with comparatively less positive self-concepts and less internal loci of control demonstrate greater increases in self

-esteem and internality at posttesting than their teammates who had scored higher at the pretests. However, only the increases in social reasoning skills met the .05 standard of significance (see Table 4.12). Therefore, the null hypothesis cannot be rejected. The differential effects of the intervention upon subjects with high or low entry level skills/scores was demonstrated only on the S.I.A.S.

Table 4.12

Hi-Lo Studies: One-way ANOVA Comparison of Changes in Self-Esteem, Social Reasoning, and Locus of Control in the Hi-Lo Groups.

<u>V</u>	<u>Group</u>	<u>n</u>	<u>M</u>	<u>S.D.</u>	<u>S.E.</u>	<u>f,ratio</u>	<u>f,probab- ility</u>
Self-Esteem (TSCS)	Hi	10	7.10	10.80	3.41	2.612	0.1234
	Lo	10	19.50	21.73	6.87		
Social Reasoning (SIAS)	Hi	10	20.50	25.66	8.12	6.878	0.0173
	Lo	10	48.60	22.13	7.00		
Locus of Control (LOCITAD)	Hi	10	2.00	3.30	1.04	3.730	0.0693
	Lo	10	4.90	3.41	1.08		

Qualitative Analyses Of Changes In Team

Development (Hypothesis VI)

The research question examined here is stated in

Hypothesis VI:

Participation in adventure group school counseling will

not qualitatively change the two treatment groups' stage of team development as indicated by the subjects' Feedback Sheets, the Team Compacts, and the investigator's Field Notes.

As in the Hi-Lo Studies, the two groups of research subjects under study here are the two groups who actively participated in the adventure school group counseling programs of wilderness search and rescue team training (the experimental treatment group and the contrast treatment group). To the investigator's Field Notes, the treatment subjects' Feedback Sheets, and the two Team Compacts the investigator applied the twenty code categories defined on the Team Development Coding Chart. The investigator examined each document line-by-line and coded every incidence of criterion behavior, i.e., "Recruitee categorizing others" or "Participant blaming counselors" or "Member reconsidering role" (Stages 1, 2, 3 and domains a, b, d, respectively). Descriptors of more cogent, illustrative samples (exemplars) of each criterion behavior are displayed in the Matrix of Team Development Behaviors (Figure 4.6).

The Matrix of Team Development Behaviors (Figure 4.6) has three conspicuously empty cells. The qualitative data contains no examples of criterion behavior for a recruitee discerning explicit/implicit group rules (the social rules domain at the recruitee stage, coded "1c"); a teammate accepting both counselors as people (the adult/authority domain at the teammate stage, coded "4b"); or a graduate

Stage 1 RECRUITEE	Stage 2 PARTICIPANT	Stage 3 MEMBER	Stage 4 TEAMMATE	Stage 5 GRADUATE
Domain a. PEERS	"...some don't think they can do anything...others really do work at these activities..."	While two participants race ahead on the ropes course, the others yell, jeer, and eventually ignore/isolate them.	High status member publicly identifies low status member as a "good" problem solver.	"...I learned that each person is different, but together we can all make a team..."
Domain b. ADULTS/ AUTHORITY FIGURES	Snickers and smiles to the counselor's, "I'm not here to shrink you..." introductory speech.	Male member sheepishly flirts with female counselor.		After Expedition neither group will permit any criticism of its graduates.
Domain c. SOCIAL RULES	After counselor repeats the team-building rule of giving and accepting help one participant mumbles, "...it's all BS anyway. I don't need any help..."	All members perceive severe difficulty and physical discomfort during a team-building activity.	Group discusses noninvolvement of one teammate and decides henceforth to regularly solicit her opinions and ideas.	When counselor encouraged them to vent anger at Mr T the group sullenly withdrew. Later, they "appeased" counselor with a grudging acceptance of their responsibility.
Domain d. SOCIAL SELF CONCEPT	Female recruitess introduces herself to the group as "The Mouth".	The two participants who refused to participate in team-building activities during session two, do not come to session three.	"...I think people are starting to trust me...". "...maybe you don't have to drink to have a good time."	One team chooses not to destroy its Team Compact at final session "...we're still working on that stuff..."

Figure 4.6 Matrix of Team Development Behaviors.

practicing altered social rules outside the group (the social rules domain at the graduate stage, coded "5c"). These empty cells belie weaknesses in the Team Development Coding Chart (as well as gaps in the collected data). For example, "discerning" ("1c") is a much more subjective than objective behavior. The self-report data on the Feedback Sheets from the earliest sessions are sparse and inadequate. Identifying "discerning" behavior among the investigator's observations in his Field Notes, proved impossible. The concept of "accepting both counselors as people" ("4b") appears to pose the same problems to the qualitative researcher as does "discerning group rules". However, the "practice of altered rules outside the group" ("5c") presents a somewhat different problem. Insofar as this criterion behavior happens "outside the group", the investigator is very unlikely to observe and document it directly. Therefore, the investigator is dependent on the subjects' self-reports. Additionally, because this behavior (hypothetically) occurs at the very final stage of team development and neither team reached this stage until the last team meeting, the opportunities for subjects to self-report such behaviors were very limited.

The findings of the qualitative analysis do indicate changes in treatment groups' stage of team development. Figure 4.7, the Team Development Growth Gradient Graph, charts the progress of each treatment group through the

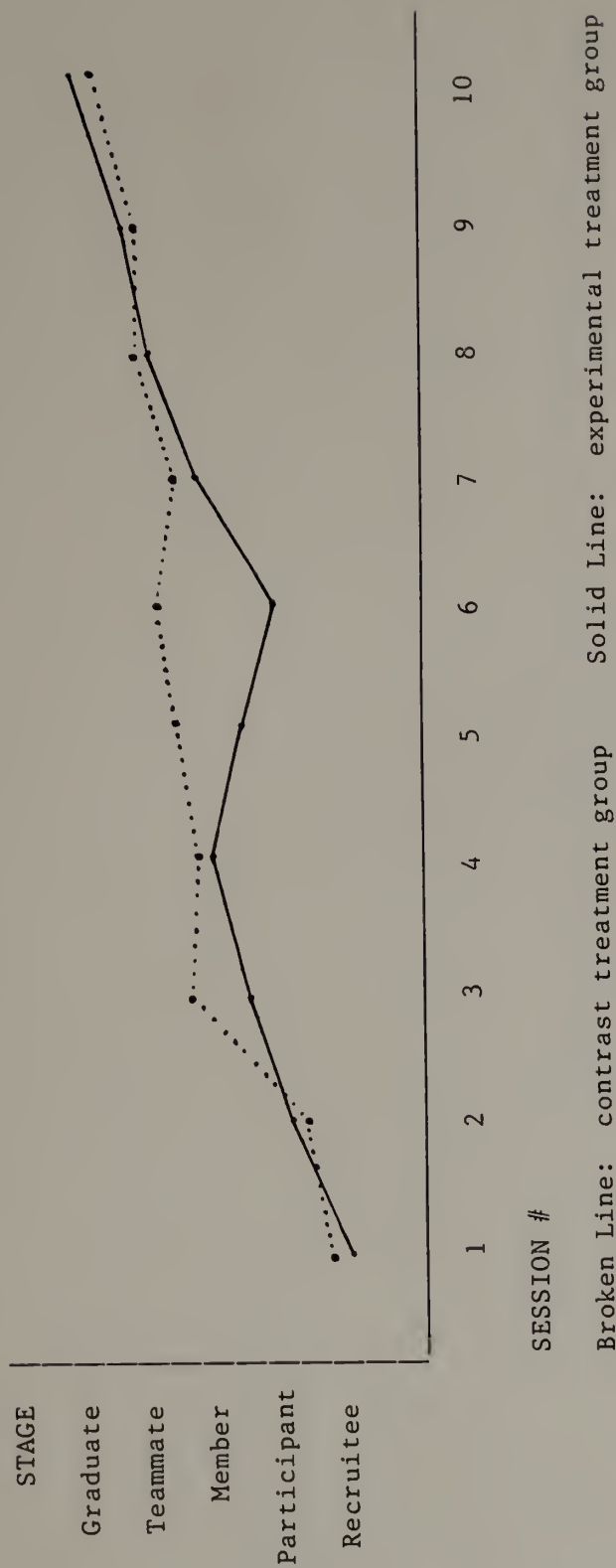


Figure 4.7 Team Development Growth Gradient Graph.

stages of team development over the intervention period of 10 treatment sessions.

The decision rule for determining each team's stage of development at each treatment session was the calculation of an average by dividing the total "value" of coded behaviors by the total number of behaviors coded in the qualitative data available from each treatment session. For example, during the third treatment session of the experimental treatment group, the investigator's Field Notes and the subjects' Feedback Sheets indicates 1 behavior coded at Stage One, 5 behaviors coded at Stage Two and 2 behaviors coded at Stage Three. That makes a total of 8 coded behaviors. With the stage number now considered to be that behavior's value on a hypothetical scale of team development, the total value of these 8 behaviors is 17. The quotient of 17 divided by 8 is 2.13. Hence, at the third treatment session the experimental treatment group is considered to be functioning at Stage 2.13 of team development, that is, the early phase of the participant stage. These calculations closely resemble Prof. Selman's procedure for determining the Average Issue Score on his Interpersonal Awareness Scale. This process highlights the fact that the Team Development Coding Chart is not concerned with individual evaluations but with averaged group trends.

The Team Development Growth Gradient Graph (Figure 4.7)

is a salient display of each group's progress through the developmental stages of an evolving team. Though they begin (nearly) and end (exactly) at the same points on the graph, the course plotted by each team is not the same. This difference belies differences in the quality and character of each team's development. When the coded behaviors of the contrast treatment group are plotted on the Growth Gradient Graph, they form the figure of an uneven step ladder. When the coded behaviors of the experimental treatment group are plotted on the Growth Gradient Graph, they form the figure of a steady incline with one deep "hollow".

Clinical interpretations of the qualitative data appears to confirm this "graphic" visual display of group differences. The contrast treatment team appears to have met each increasingly complex physical team challenge in their training program with a team success that is then followed by a period of consolidation. The experimental treatment group, on the other hand, experienced fewer objective/technical successes with the physical team challenges (particularly at treatment sessions five and nine, the critical half-day and full-day Expeditions). Subsequently, their limited successes were followed by periods of regression. The one deep hollow on their Growth Gradient Graph visually displays the regression period that followed session five. Examining why a second hollow does not appear on the graph after session nine, reveals some other significant differences between the

two treatment groups.

Though each group clearly demonstrated Stage Five behaviors at their final treatment session, the quality and character of Stage Five behaviors demonstrated by the separate teams were substantially different. The majority of Stage Five behaviors exhibited by the experimental treatment group falls in only two domains. During the Expedition, this group drew inward and became protective of each other, i.e., solidifying friendships and group identity (Stage 5, domain "a"). Additionally, the experimental treatment group had to turn back before reaching the top of the mountain. Though they were able to overcome blaming their chaperone for this "failure", the data also indicates that their disappointment contributed considerably to the restoration of psychological distance between the counselors and themselves (Stage 5, domain "b"). The quality and character of Stage Five behaviors exhibited by the contrast treatment group, on the other hand, were much more positively oriented. This group had several "peak experiences" on their Expedition. Group identity and friendship (Stage 5, domain "a") solidified around their successes as a team. While they were as equally protective and noncritical of each other as was the experimental treatment group, their protectiveness was not used as a psychological defense against failure. A clinical interpretation of the qualitative data indicates that they, the subjects in the contrast treatment group, were protective

and noncritical of each other because they did not want to compromise the emotional "high" they experienced on the mountaintop.

One of the most dramatic exhibitions of psychosocial growth and team development can be found in the poem written by a female subject in the contrast treatment group the day after their Expedition. This young lady's initial role within her group (a role characteristic of the way she presented herself elsewhere in the school and community) was as the "silent loner". She did not maintain eye contact with counselors or peers, and she consistently isolated herself physically from the group. Her poem is an expression of significant individual psychosocial growth. Choosing to share the poem with the team demonstrates a significant qualitative change in her level of identification with her teammates. The uniformly enthusiastic responses from her teammates is indicative of their solidified group identity. As such, the poem represents a moving summative statement for the potential of 10 troubled adolescents to develop into a team that actively supports each member's psychosocial growth and behavior change.

"Upon a hill they stood -
 satisfied.
They had reached the top
 of a mountain.
Some brought themselves.
 Others
took just a shell
 - they thought.

When they got to
the top
they found
that
their bodies had
travelled ahead.

Upon a hill they stood -
satisfied and whole."

C H A P T E R V

DISCUSSION

Chapter V begins with a discussion of the findings from this study of adventure group school counseling wilderness search and rescue team training in a public Northeastern high school. Following the discussion of the specific hypotheses and findings, the limitations of this study are discussed. Finally, recommendations to researchers and practitioners complete this chapter.

Discussion of Findings

A primary purpose of this study is to investigate the hypothesized effects of an adventure group school counseling intervention with underachieving students in a public Northeastern secondary school. Six specific hypotheses and two additional, supplementary studies assess this adventure group school counseling program in wilderness search and rescue team training. The first five null hypotheses predict no significant changes in self-concept, interpersonal reasoning, locus of control, school attendance, and school conduct among the experimental treatment subjects. The sixth null hypothesis predicts no qualitative changes in team development within the experimental and contrast treatment groups. One supplementary study examines the possible impact

of the informal faculty referral procedure used to identify a pool of underachieving students, a sample of which formed the experimental treatment and control groups (the Control Group Studies). The other supplementary study investigates the intervention's differential effects on treatment subjects when specific intrasubject entry level skills are statistically controlled (the Hi-Lo Studies). The findings are summarized below.

Hypothesis I

Participation in adventure group school counseling will not significantly change the self-concept of the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by the pre-/post-administration of the Tennessee Self-Concept Scale (T.S.C.S.).

The findings show a statistically significant difference between the experimental treatment and control groups' Total Positive Scores on the T.S.C.S. Therefore, the null hypothesis can be rejected. A multivariate analysis of the two sets of subscales on the T.S.C.S. does not indicate significant levels of interaction among the individual subtests that comprise the two subscales. As such, it is not possible to isolate specific subsets of the total self-concept that are particularly or uniquely responsive to an adventure group school counseling intervention. However, the T.S.C.S. has one other subtest, the Self-Criticism Score,

that is not included in the Total Positive Score or its two subscales. On this single subtest the differences between experimental treatment and control subjects after the intervention were extremely large (attaining a level of significance of less than .01 percent). It can be concluded, therefore, that adventure group school counseling positively changed the subjects' total level of self-esteem while significantly impacting their ability to examine themselves and their behavior in a less defensive, more open and honest manner.

The integrated and integrative experiences of adventure group school counseling (outdoor adventure and experiential learning) in the context of a growing and positive group identity (team development) appears to have induced meaningful physical, emotional, intellectual, and social stress that has been successfully processed intra- and interpersonally (through clinical debriefing) so that both self-esteem and healthy self-criticism increased. Technically, the experimental treatment group failed their outdoor wilderness experiences. Clearly then, it was the subjective experience of meeting each challenge, rather than the objective outcome, that significantly reduced the adolescent defensiveness and grandiosity, while enhancing the self-esteem, of the experimental treatment group.

The positive effects of adventure group school counseling upon the self-concepts of 10 underachieving public

high school students in the Northeast is comparable to the demonstrated effectiveness of other adventure programs. Barcus and Bergeson (1972) reviewed many of the earliest studies of survival training on self-concept and identified the potential of such programs to effect positive changes in self-concept. Wetmore (1972) was one of the first investigators to use the T.S.C.S. with Outward Bound students. Over the years many investigators have applied the T.S.C.S. to adolescent participants in Outward Bound courses and replicated Wetmore's positive findings (Jones, 1978; Nye, 1976; Jones, 1976). Gibson (1981) investigated changes in self-concept among students in the Connecticut Wilderness School and found positive changes. Fersch and Smith (1972, 1973) found significant self-concept improvements on the T.S.C.S. for female public high school students enrolled in a Project Adventure physical education course. They found no significant improvement for males. More recently, Quimby (1983) found positive gains with no significant differences among boys or girls when using experimental conditions very similar to those of Fersch and Smith. Finally, Lieberman and DeVos (1982, 1984) found "remarkable similarity" between their two studies. Both demonstrated the powerful effects of adventure based counseling upon the self-concepts of troubled public high school students as measured by the T.S.C.S.

Participation in adventure group school counseling will not significantly change the complexity of the experimental treatment subjects' reasoning about interpersonal relationships, in contrast to the experimental control subjects', as indicated by pre-/post-administrations of the Selman Interpersonal Awareness Scale (S.I.A.S.).

The findings do demonstrate statistically significant differences between the two groups on this measure. The experimental treatment group showed a positive change toward more complex social reasoning while the experimental control group showed little growth in the complexity of their social reasoning. Therefore, the null hypothesis can be rejected.

The S.I.A.S. appears both qualitatively and quantitatively sensitive to changes affected by an adventure group school counseling intervention. The dynamic interaction between meaningful physical, intellectual, social and emotional challenges; prosocial group expectations; and verbal (cognitive) clinical debriefing significantly advances the interpersonal understanding of the adventure group school counselee by stimulating enough conceptual conflict to cognitively decenter the subject, with her growing awareness of the inconsistencies or inadequacies of her current internal structures of social reasoning she can begin to cognitively accommodate the next, higher stage of interpersonal awareness and re-equilibrate.

The S.I.A.S., as an adventure program evaluation

instrument, is in a formative period. To date, the S.I.A.S. has been used to measure the effects of two Project Adventure programs, the final two evaluation years of the Adventure-Based Counseling (A.B.C.) program (Lieberman and DeVos, 1984) and all three evaluation years of the Urban Modification of Project Adventure (U.M.P.A.) project (P. Radcliffe, personal communication, October 5, 1986). Lieberman and DeVos (1984) did not find any significant statistical differences when comparing changes in the A.B.C. groups to comparison groups when using the S.I.A.S. On the other hand, when evaluating the effects of the two-month, primarily physical education, U.M.P.A. project, statistical significance was reached on the S.I.A.S. In fact, the results were replicated each of three years with a pre-/posttest, experimental/control group design.

Hypothesis III

Participation in adventure group school counseling will not significantly change the level of the experimental treatment subjects' internal locus of control, in contrast to the experimental control subjects', as indicated by pre-/post-administrations of the Locus of Control in Three Achievement Domains (L.O.C.I.T.A.D.).

The findings clearly indicate a statistically significant difference between the two groups on this measure, with the experimental treatment group showing a

positive change towards greater internality while the control group made, literally, no growth. Therefore, the null hypothesis can be rejected. While the results of a multivariate analysis do indicate significant interaction among the L.O.C.I.T.A.D.'s three subscales or "domains", the subsequent univariate analyses of each subscale do not identify any one particular domain that was significantly and/or singularly influenced by the intervention. However, even though significance levels were not attained for any specific achievement domain, it should be noted that the differential impact of the treatment on the three achievement domains did not follow the expected direction. The investigator had anticipated that the most affected domains would be the social and the physical domains and the least affected by the intervention would be the intellectual domain. The findings demonstrated an order inversely related to the one expected. This could be an artifact of the subscales' lower reliability or an indication of the cognitive emphasis of adventure group school counseling's clinical debriefing. Still, the only (statistically) legitimate conclusion is that adventure group school counseling affects locus of control in a manner that is more generalized than domain-specific.

In adventure group school counseling, wilderness search and rescue team training, the all-day Expedition was the paradigmatic event of the program. The Expedition was a keen

experience of technical failure for the experimental treatment group. Initially, the team externalized the locus of control over the Expedition, i.e., they blamed Mr. Bentley, their chaperone. Grudgingly, they confronted their own responsibility for the successes and failures on their Expedition. Because the adventures are real and, consequently, intensely motivating, adventure group school counseling wilderness search and rescue team training offers significant opportunities to help the counselees establish a more internal locus of control.

Several other investigators have evaluated the effects of adventure programs upon the participant's locus of control. No one, that this investigator is aware of, has used the L.O.C.I.T.A.D. Borstelmann (1969) performed one of the earliest studies on changes in locus of control as the result of participation in a standard Outward Bound course at the North Carolina Outward Bound School. Borstelmann used the Rotters Internal External Locus of Control Scale and found a significant increase towards internal control. However, Borstelmann's study had no control group. Stremba (1977) replicated Borstelmann's study with a control group but without positive findings. Two studies found significant movement towards internality after adolescent boys participated in organized wilderness camping experiences (Eastman, 1973; Nowicki & Barnes, 1973). The Fersch and Smith (1972, 1973) evaluation reports of Project Adventure

physical education courses in a public high school identified significant growth towards internality the first year. The second year findings, however, were not statistically significant. Both years the Rotter Internal External Locus of Control Scale was used. In 1974, G. Urley used the Nowicki and Strickland Locus of Control Scale to investigate the effects of a nine session (1 hour each) course in outdoor experiential education with high school students. Urley found a significant increase in internality when comparing changes in the experimental and control groups (Gillis, 1983). In summary, when investigating the interaction between adventure programming and locus of control orientation, the research findings are limited and inconsistent. Similarly, adventure group school counseling and the L.O.C.I.T.A.D. indicated overall positive results with contradictory findings among the three achievement domains.

Hypothesis IV

Participation in adventure group school counseling will not significantly change school absenteeism and tardiness by the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school attendance records.

The findings here are somewhat contradictory. Neither tardiness nor absenteeism changed significantly. However, within the experimental treatment group, the mean number of

absences did fall (the expected direction) but the mean number of tardy attendances actually rose (the unexpected direction). Apparently, participants came to school somewhat more often but in a somewhat less timely manner.

Perhaps the (nonsignificant) drop in absenteeism resulted from the regularity of nearly every counselees participation in every weekly treatment session. Perhaps the (nonsignificant) increase in tardiness was affected by the regularity with which the adventure counselors read the daily absence list and sent to the central office for a tardy slip any student/subject whose name was on the list, (but had made a "miraculous recovery" and appeared at the treatment session). Still, the findings were statistically nonsignificant, and the null hypothesis cannot be rejected. Adventure group school counseling did not significantly improve the school attendance patterns of the participants during the intervention period. A follow-up study could determine if the summative impact of adventure group school counseling on school attendance is more significant than the formative impact indicated by the findings of this study.

Hypothesis V

Participation in adventure group school counseling will not significantly change the occurrence of punishable misbehavior in school by the experimental treatment subjects, in contrast to the experimental control subjects, as indicated by school detention records.

The findings demonstrate a statistically nonsignificant difference between the experimental treatment and control groups on this measure. While the experimental treatment group exhibited no change in the average number of detentions they accumulated during the intervention period, the experimental control group's mean number of detentions rose slightly (nonsignificantly). Though the results point in the expected direction, they do not warrant a rejection of the null hypothesis.

It can be concluded, then, that adventure group school counseling does not significantly improve the school comportment of the participants during the intervention period. There are two caveats to this conclusion. First, as with school attendance, a follow-up study might determine that the summative impact of adventure group school counseling on school conduct is (significantly) greater than were the necessarily more formative findings of this study. Second, the person who administers detentions at the field site, the vice-principal, reports that the overwhelming majority of detentions are the consequence of students being tardy to school or skipping a class. The investigator was unaware of this fact until he was preparing this discussion of the findings. Even though the experimental treatment subjects came to school more consistently, they were also more consistently tardy. Hence, they got more detentions. This possible chain of events could have confounded the

findings here and definitely limits the validity of using detention records as the exclusive measure of treatment subjects' out-of-group inschool comportment.

This study identified two administrative records, attendance and detention, as the measurement instruments of inschool performance changes of the students/trainees in adventure group school counseling. The findings here were not significant and a closer examination of the administrative recordkeeping procedures at the field site indicate their questionable reliability and validity for this purpose. Absence, tardiness, and detention behaviors appear subject to many uncontrolled, intervening variables. A review of the research literature generated only one other investigator who used these behaviors to measure the impact of adventure programming. Smith (1972) found significant improvement in the daily attendance records of high school students who had been involved in a three-week Outward Bound experience. Other investigators found nonsignificant findings when measuring the impact of Outward Bound experiences on grade point average (Gillis, 1983; Jones, 1978). Fersch and Smith (1972, 1973) developed a school climate instrument to measure the impact of Project Adventure and established some significant changes in attitude (not behavior) towards school in the areas of power, achievement, affiliation, and interest. Finally, one other (somewhat remotely) related finding comes from the work of Naches and

Roberts (1967) who concluded that the changes affected by an Outward Bound experience (indicated by the High School Personality Questionnaire and a student and staff rating scale) were most significant with those students categorized as "potential drop outs" (i.e., nonattendance).

Hypothesis VI

Participation in adventure group school counseling will not qualitatively change the two treatment groups' stage of team development as indicated by the subjects' Feedback Sheets, Team Compact, and the investigator's Field Notes.

The findings here do indicate qualitative changes in the experimental and contrast treatment groups' stage of team development. Therefore, the null hypothesis can be rejected. The conclusion drawn from the qualitative data is that each treatment group did develop into a team capable of supporting each member's technical, personal, interpersonal (psychosocial) growth, and behavior change. However, the data also indicate that the two treatment groups did not follow exactly the same path while developing into teams. Though each group passed through the same sequence of stages in their development as a team, the rate and pattern of progression and regression through the stages was different for each group.

A clinical interpretation of the qualitative data

indicates that the critical difference between the groups was the way each group managed frustration and failure. The experimental treatment group oriented itself into a defensive posture while managing its frustrations and failures. The contrast treatment team drew inward at first, as well. But through the process of articulating a Team Compact, they evolved more effective mechanisms for managing their frustration and failure.

Control Group Study

The research question addressed in the Control Group Study is:

Did the informal faculty referral procedure accurately identify (1) a homogeneous group of students that is, (2) significantly different from a random sample of the general student population at the field site?

The findings indicated that the two samples selected from the pool of faculty referred students (the experimental treatment and control groups) were not significantly dissimilar before treatment. When comparing a random sample from the general student population to a sample from the referral pool, all three comparisons fell in the expected direction with one being significantly different. It can be concluded that the informal faculty referral procedure did accurately identify a homogeneous subpopulation of students that is significantly less mature than the general student

population in their social reasoning and exhibits less, but not significantly less, self-esteem and internal loci of control.

The criteria for referral presented to the faculty included a variety of observable student behaviors that could fit under the broad umbrella of underachievement (See Methodology Section in Chapter III). These findings indicate a student's social reasoning skills is one significant and common factor in the internal decision-making process of school faculty members (at the northeastern public high school that served as the field site for this study) when they make informal distinctions between the student who is not realizing his/her full potential at school and the student who is realizing his/her full potential at school.

Hi-Lo Studies

The research hypothesis stated in the Hi-Lo Studies is:

Participation in adventure group school counseling will not significantly change a subject who enters the program with, comparatively; (a) lower self-esteem, (b) more simplistic reasoning about interpersonal relationships, or (c) externalized loci of control in contrast to a subject who enters the program with comparatively; (a) higher self-esteem, (b) more complex social reasoning skills, or (c) internalized loci of self-control as indicated by pre-/post-administrations of the T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D. respectively.

The findings show that the subjects who had entered the treatment with lower social reasoning skills demonstrated a significantly greater increase in these skills after treatment when compared to the subjects who had entered the treatment with higher social reasoning skills. Though the findings on the other two variables, self-concept and locus of control, fell in the expected direction, the differences were not statistically significant. Therefore, Therefore, the null hypothesis must be rejected.

It can be concluded that adventure group school counseling does affect the social reasoning skills of participants differentially. Adventure group school counseling creates an optimal developmental environment by exposing less mature social reasoning (from the "Lo" teammates) to slightly more advanced social reasoning (from the "Hi" teammates) in the context of the social, intellectual, and physical experiences that are so compelling they cannot be ignored. However, the converse is no less true: the treatment subjects who enter with, comparatively, mature social reasoning (the "Hi" group) necessarily experience limited exposure to yet more advanced social reasoning within their treatment groups. Such a "ceiling" effect could artificially heighten the differential impact of adventure group counseling on social reasoning.

Summary Of Discussion

In summary, the findings from the first three hypotheses indicate that an adventure group school counseling wilderness search and rescue team training program does elicit significant and measurable psychosocial growth within the (experimental) counselees after a course of ten weekly treatment sessions. The combination of teambuilding initiative games; technical skills training (wilderness search and rescue skills); reality-based group challenges (surviving the rain, blackflies, hunger, and fatigue); and consistent clinical debriefing of the subjective and objective experiences within the group does change the students/subjects/counselees. These Northeastern public high school students, informally identified by their school teachers and administrators as "underachievers" (the Control Group Studies), developed a more positive self-image, mature understanding of interpersonal relations, and internalized "seat" of self-control. When the investigator statistically controls all the (treatment) counselees' entry level performances on the T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D., the impact of the treatment appears even more dramatic (the Hi Lo Studies).

The treatment and/or the measurement instruments do not indicate significant and specific changes in the (experimental) counselees' in-school, out-of-group behavior

(Hypotheses IV and V). However, within the two treatment groups, the counselees did change their behavior as they interacted, became involved, and, finally, identified with one another and the values, skills, and/or goals of an adventure group school counseling wilderness search and rescue team (Hypothesis VI).

Limitations

Design Limits

Reactivity to the Investigation and Investigator.

The facts that the investigator is also the in-house school psychologist at the field site and the program evaluation instruments are recognizably "psychological" most likely influenced the students'/subjects' responses. All the participants were informed about the purpose and intent of the program and the evaluation process. The feeling of being "a guinea pig in a psychological experiment" was voiced and chuckled about on several occasions. The investigator's attentiveness to data collection heightened the participants' awareness and wariness. The investigator worked collaboratively with a school guidance counselor and was assisted by two teachers. All the interveners were strongly committed to the adventure group school counseling project. Their enthusiasm and attentiveness may have produced extraneous results, i.e., the Hawthorne effect.

Qualitative Data Analyses.

The Team Development Coding Chart was designed after the qualitative data was collected. Postdefined analysis is inherently weak. Qualitative field work and data analysis should be an iterative, ongoing process in order to uncover real or potential sources of bias. The qualitative analysis in this research is to be considered an exploratory study that can offer some directions to future research.

Hi-Lo Studies.

The ex post facto nonexperimental design of the Hi-Lo Studies could not control for unidentified variables in the laboratory. The investigator manipulated the quantitative data to measure the differential effects of the treatment on subjects with high or low entry performance on each dependent variables. On one of the variables, social reasoning skills as measured by the S.I.A.S., a significant effect was demonstrated. However, one cannot conclusively attribute this effect to the treatment. The Hi-Lo Studies did not control the possibility of a ceiling effect. The subjects who entered treatment with strong social reasoning skills modelled, motivated, or reinforced their less "skillful" teammates while there remained no one on the team to model, motivate, or reinforce their movement to a higher stage of social reasoning (except the adventure counselors).

Sampling Limits

Size.

Even though statistically significant results were obtained, the sample size of 20 subjects divided into two experimental groups (the experimental treatment group and the experimental control group) is so small that unexamined, situation-specific variables could have easily intervened. For example, the pretest attendance figures for the experimental treatment group are somewhat inflated by the inclusion of two subjects with extremely high levels of absenteeism. The small sample size made the statistics vulnerable to such false loading.

Narrowness

The experimental subjects included in this study differed significantly from a random sample of the general student population of this Northeastern public high school. As such, generalizations from the findings of this study must be limited to a specific subpopulation of the public high school students in this largely blue collar, small, Northeastern community. The specific student subpopulation is the students informally identified by their teachers and/or administrators as achieving in school significantly below their individual potential (Control Group Studies).

Assignment to Group.

In this study, the assignment of students/subjects to research groups was random, within limits. Randomization was constrained by the need to fit the intervention into the current school schedule. As such, perfect randomization was compromised to the needs of the field site.

Limits of the Instruments

Quantitative Instruments.

Two of the three psychometric measures used here, the T.S.C.S. and S.I.A.S., have been used in some of the other adventure counseling programs extant at this time and provided (limited) comparative findings. The other psychometric instrument used here, the L.O.C.I.T.A.D., has not been used in other adventure counseling programs. Still, one can, indeed, question their combined sensitivity to the variety of changes which occur in any adventure counseling program.

Each instrument, in turn, has its own limitations. The L.O.C.I.T.A.D. presents 48 bipolar items with assigned "positive" and "negative" dimensions. The students/subjects often took issue with the narrowness of choice afforded them. The T.S.C.S., on the other hand, is a long, visually intimidating instrument. The students/subjects fatigued and had to be carefully monitored lest they answer rapidly and/or randomly. The significant changes in the Self-Criticism Score

on the T.S.C.S. could be an artifact of the posttesting. Its test-retest reliability coefficient is 0.75 as compared to the coefficient score of 0.92 for the Total Positive Score. Responses on the S.I.A.S. were either written independently by the students/subject or transcribed by a counselor if the student/subject preferred to answer orally. The possible effects of subject-researcher interaction during the collection of these data were not measured.

Finally, the quantitative outcomes included in this study were calculated from the data of immediate posttreatment measurements. Though one can reasonably conclude that the findings were significantly influenced by experimental manipulation, there is no assurance that the effects will last for any significant length of time.

Qualitative Instruments.

In this study, the concept of team development evolved from an orienting construct to a preliminary coding instrument of the qualitative data that was collected. This coding instrument has not been standardized, its reliability has not been evaluated, and its validity has not been established. As such, the findings it generated can only be considered descriptive and suggestive. At best, they corroborate the possibility of team development as a factor in adventure group school counseling.

The instruments used to collect qualitative data and the sampling procedures employed were inadequate. For example, the subjects demonstrated such reluctance to consistently complete the Feedback Sheets that, as an act of desperation, the investigator compelled them to respond by refusing to begin the third treatment session until everyone had completed a Feedback Sheet for the second session. Their response rate on the Feedback Sheets was very inconsistent. From among the experimental and contrast treatment groups only one subject handed in Feedback Sheets regularly (for 8 of the 10 sessions). Three subjects completed Feedback Sheets infrequently (for three or four sessions). The remaining 16 treatment subjects completed Feedback Sheets only when directly confronted by the investigators at the third and final sessions. A total of 14 completed Feedback Sheets were returned to the investigator by the 2 groups of 10 subjects participating in 10 treatment sessions. This inadequate response rate of 22% includes other sampling errors as well, i.e., one respondent generated 17% of the total number, and most of the Feedback Sheets were written in response to only 2 particular treatment sessions.

Recommendations for Researchers

The findings of this study demonstrate that adventure group school counseling can effect significant changes in treatment subjects after 10 weekly treatment sessions. The

three psychometric instruments (T.S.C.S., S.I.A.S., and L.O.C.I.T.A.D.) identified specific internal psychosocial constructs that are particularly responsive to this type of intervention. The findings from the T.S.C.S. and the L.O.C.I.T.A.D. indicate generalized positive changes in self-concept and locus of control. Additionally, the significant findings from the Self-Criticism score on the T.S.C.S. indicates adventure group school counseling's potential to break through adolescent defensiveness and grandiosity and help them become more accessible to self-examination within the treatment group. It points, as such, to a possibly fruitful avenue of future research.

Still, the single instrument most sensitive to the impact of adventure group school counseling wilderness search and rescue team training with underachieving adolescents (in a Northeastern public high school) is the S.I.A.S. The intervention is designed to enhance the growth and development of interpersonal awareness and understanding through therapeutic talk and action. The S.I.A.S., in turn, complements these two processes when it asks open-ended questions (talk) about realistic interpersonal dilemmas (vicarious action). The positive findings of the S.I.A.S. on the U.M.P.A. program reinforce this investigator's opinion that the S.I.A.S. is an instrument of choice for research in adventure counseling.

Ten weekly treatment sessions is a genuinely short

intervention period. This intervention is more than action-oriented; it is adventure-based. Single, intense experiences, i.e., adventures, can and do change a person. Yet it is all the little, daily events afterwards that steadily reinforce or extinguish any change. Follow-up studies are necessary to evaluate the longevity and/or permanency of the changes effected by the adventures experienced on the treatment subjects during the intervention period.

The qualitative analysis of team development indicated that the subjects' behaviors within their treatment group did change. The unobtrusive quantitative analyses of administrative attendance and detention records did not indicate any significant improvement in the subjects' in-school behavior outside the treatment group. Notwithstanding the limitations of the administrative records cited above, future researchers need to design more effective ways of measuring any transfer of learning from the treatment group to the school classroom or hallway.

In this study, the concept of team development has evolved from an orienting construct to a coding system for qualitative data. Future researchers can use the Team Development Coding Chart as a framework to prestructure their own qualitative instrumentation so that it is directly connected to their specific research questions and conceptual interests. Then, through the iterative process of

data collection and coding, they can define more empirically driven labels/codes. For example, one obvious recommendation relevant to the concept of team development is to relate the questions posed on the subjects' self-report form (the Feedback Sheets) to, generally, her/his growing sense of team membership and, specifically, the four domains identified on the Coding Chart, i.e., peers, adults/authority figures, social group rules, and self-concept. Also, future qualitative researchers need to be attentive to the significant risk of sampling errors. It is recommended that all adventure counselors keep detailed field notes. In this study, only the investigator recorded field notes. Finally, a more effective method of collecting formative self-report data from the treatment subjects needs to be defined. The procedure of casually collecting Feedback Sheets proved inadequate.

The design of this research project appears to lend itself to the effective identification of both situation-specific variables and (potentially) generalizable findings. The simple (standard) scientific design of pre- and post-testing an experimental and control group was complemented by additional comparison groups and supplementary post-hoc studies to isolate and control some of the (possible) intervening variables or limitations in procedure or instrumentation. The qualitative study added invaluable clinical data that helped the investigator interpret the

quantitative data and articulate the therapeutic processes involved in adventure group school counseling. Despite the small sample sizes, the time-constrained intervention period, and the inherent limitations of field research, positive findings were generated. The investigator attributes this to the power of the intervention, the clinical skills of the counselors, and the comprehensiveness of the research design.

Future researchers in adventure counseling are encouraged to be attentive to intrasubject group variables (i.e., gender, race, entry level skills, targetted populations) and intervention variables (i.e., voluntary/compulsary participation, length and intensity of therapeutic contacts, nature of adventure activities, therapeutic goals of the specific intervention program) as well as the variabilities in research methodologies. Adventure group school counseling is one variation in the growing discipline of adventure counseling programs. Carefully controlled, scientific research and/or program evaluation is necessary to securely establish its benefits and limitations.

Recommendations for Practitioners

The implications of this study of adventure group school counseling wilderness search and rescue team training can be significant for adventure counseling practitioners. The findings indicate that team development holds a potentially

valuable therapeutic function in adventure group school counseling. The qualitative analyses identify 9 or 10 treatment sessions as the developmental period in which a group of recruits can become an adventure counseling team fully capable of supporting ongoing individual psychosocial growth and behavior change among teammates. Unfortunately, this intervention ended after the 10th weekly session. Future practitioners should consider extending the intervention period and/or increasing the contact time each week in order to capitalize on the therapeutic opportunities present when working with a fully "developed" supportive team.

However, when extending the intervention period or increasing the weekly contact time future practitioners should not try to stretch the same adventure experiences over this longer period of time. On the contrary, as the team develops they require less time for team development exercises and more common adventure experiences to share and process. This investigator recommends Larry Buell's, The 24 Hour Experience (1983), as the next logical step for an extended/increased adventure group school counseling wilderness search and rescue team training program.

The 24-Hour Experience combines Education, Recreation and Human Service disciplines to allow individuals and groups to encounter themselves and their environment in an intensive, perceptive, and experiential manner. Participants travel as individuals, pairs, or in groups over a variety of cultural and natural landscapes. They 'cat nap'

along the way, but primarily they hike throughout a 24-hour period. Along the route, they engage in a full range of environmental education activities, challenge/adventure experiences, outing sports, night experiences, and individual and group tasks which expand personal confidence, group cooperation, practical living skills, and environmental awareness. (Buell, 1983b, p.2)

Finally, this study also isolated two important clinical issues in the practice of adventure group school counseling wilderness search and rescue team training. The first issue concerns the appropriate policy and procedures for deciding when a counselee has forfeited his team membership and can no longer participate in the program. This became an issue in each treatment group not because one subject was too resistant or aggressive or had been expelled from school (three other possible scenarios) but because one subject in each group did not keep pace with his co-counselees as they passed through the sequential stages of team development. Instead, he remained less interactive and involved and poorly identified with the team's values and goals. He chose the response of passive nonparticipation. Each team, in turn, reacted ambiguously - sometimes angry, sometimes encouraging and accepting. After a number of "second chances", the investigator, acting as the adventure counselor, chose to prohibit this subject's participation in the Expedition. In retrospect, this was an important clinical error. The behavior of this subject and the responses of his teammates should have been processed within the group directly and

every effort should have been made to hold this subject and the team accountable for the choices each made, i.e., the subject as an unskilled member of the team and the team as unsuccessfully supporting their teammate. Future practitioners need not repeat this error in clinical judgment.

The second clinical issue highlighted in this study is not unrelated to the first; it concerns the therapeutic management of group frustration (subjective) and failure (objective). Indeed, within the qualitative data this very issue appears to be the most critical difference between the two treatment groups. Every counselor has to monitor that fine line between constructive and destructive frustration/stress and her "instinctive" helping response to heroically rescue her counselees. In effect, this sabotages the efforts of the counselees to manage their own frustration/failure. The lesson learned from this study is that objective failure and psychological growth are not mutually exclusive categories as demonstrated by the significant positive changes in the constantly failing and frustrated experimental treatment group.

BIBLIOGRAPHY

- Anastasi, A. (1976). Psychological testing (4th Ed.). New York: Macmillan.
- Ault, R. (1977). Childrens's cognitive development. New York: Oxford University Press.
- Bacon, S. (1983). The conscious use of metaphor in Outward Bound. Denver: Colorado Outward Bound School.
- Barcus, C., & Bergeson, R. (1972). Survival training and mental health: A review. Therapeutic Recreation Journal, 6(1), 3-8.
- Bell, M.A. (1982). Phases in group problem-solving. Small Group Behavior, 13(4), 475-495.
- Bernstein, A. (1972). Wilderness as a therapeutic behavior setting. Therapeutic Recreation Journal, 6(4), 160.
- Borstelmann, L.J. (1969). Psychological readiness for change associated with the Outward Bound program. Unpublished manuscript. (Available from North Carolina Outward Bound School, Morgantown, NC).
- Bradley, R., & Gaa, J. (1977). Domain specific aspects of locus of control: Implications for modifying locus of control orientation. Journal of School Psychology, 15, 18-24.
- Bradley, R. & Teeter, T. (1977). Perceptions of control over social outcomes in student behavior. Psychology In The Schools, 14, 230-235.
- Bradley, R., & Webb, R. (1976). Age-related differences in locus of control orientation in three achievement domains. Human Development, 19, 49-55.
- Buell, L. (1983a). Outdoor leadership competency, A manual for self-assessment and staff evaluation. Greenfield, MA: Environmental Awareness Publications.
- Buell, L. (1983b). The 24-hour experience, An outdoor adventure program. Greenfield, MA: Environmental Awareness Publications.

- Conrad, D., & Hedin, D. (1982). The impact of experiential education on adolescent development. Child and Youth Services, 4(3-4), 57-76.
- Cowan, P. (1978). Piaget with feeling: Cognitive, social, and emotional dimensions. New York: Rinehart and Winston.
- Crocker, J.W., & Wroblewski, M. (1975). Using recreational games in counseling. Personnel and Guidance Journal, 53, 453-458.
- Dewey, J. (1938). Experience and education. New York: Macmillan Press.
- Eastman, C. (1973). The effects of wilderness living experience on locus of control. Dissertation Abstracts International, 34, 2291 A.
- Ellis, A. (1973). Humanistic psychotherapy, The rational-emotive approach. New York: The Julian Press.
- Erickson, S., & Harris, B. (1980). The adventure book: A curriculum guide to school based adventuring with troubled adolescents. Goshen, CN: Connecticut Wilderness School. (ERIC Document Reproduction No. ED 200 381).
- Fersch, E., & Smith, M. (1973). Project Adventure - Year II, annual program evaluation for 1972-73. (Available from Project Adventure, Inc., Hamilton, MA).
- Fersch, E., & Smith, M. (1972). Project Adventure - Year I, Final quantitative evaluation for 1971-72. (Available from Project Adventure, Inc., Hamilton, MA).
- Fitts, W. (1972). The self concept and behavior. Los Angeles: Western Psychological Services.
- Fitts, W. (1965). Manual, Tennessee self concept scale. Nashville, TN: Counselor Recordings and Tests.
- Forman, G., & Kuschner, D. (1977). The child's construction of knowledge: Piaget for teaching children. Monterey, CA: Brooks/Cole Publishing Co.

- Forsyth, D.R. (1983). An introduction to group dynamics. Monterey, CA: Brooks/Cole Publishing Co.
- Gibson, P. M. (1981). The effects of, and the correlates of, success in a wilderness therapy program for problem youth. Dissertation Abstracts International, 42(01), 140A.
- Gillis, L. (1983). The effects of camping/construction experience on the self-concept, locus of control and academic achievement of high school students. Masters Thesis. Middle Tennessee State University. (ERIC Document Reproduction Service No. ED 232-822).
- Glasser, W. (1965). Reality therapy, A new approach to psychiatry. New York: Harper & Row.
- Gurucharri, C., Phelps, E., & Selman, R. (1984). Development of interpersonal understanding: A longitudinal and comparative study of normal and disturbed youths. Journal of Consulting and Clinical Psychology, 52(1), 26-36.
- Goodman, J., & Knapp, C. (1981). Beyond a philosophy of outdoor environmental education. Journal of Physical Education and Recreation. 52, 23-25.
- Hamilton, S. (1980). Experiential learning programs for youth. American Journal of Education, 88(2), 179-215.
- Hartman, J. J. (1981). Group cohesion and the regulation of self-esteem. In H. Kellerman (Ed.), Group cohesion, theoretical and clinical perspectives (pp 254-267). New York: Grune & Stratton.
- Issacharoff, A. (1981). The convergence of group cohesion and group death: The process of a time-limited group. In H. Kellerman (Ed.), Group cohesion, theoretical and clinical perspectives (pp.300 - 313). New York: Grune & Stratton.
- Jernstedt, G.C. (1980). Experimental components in academic courses. Journal of Experiential Education, 3(2), 11-19.
- Jones, C.A. (1978). An evaluation of the effects of an Outward Bound type wilderness program upon the self-concepts and academic achievement of high school students. Dissertation Abstracts International, 39, 2887A.

- Kaplan, L. (1979). Outward Bound: A treatment modality unexplored by the social work professional. Child Welfare, LVIII(1), 37-47.
- Kegan, R. (1982). The evolving self, Problem and process in human development. Cambridge, MA: Harvard University Press.
- Kelly, F., & Baer, D. (1968). Outward Bound: An alternative to institutionalization. Boston, MA: Fandel Press.
- Kesselheim, A. (1976). A rationale for outdoor activity as experiential education. Boone, NC: Conference on Outdoor Pursuits in Higher Education, Feb., 1974. (ERIC Document Reproduction Service No. ED 148-530).
- Kolb, D., & Fry, R. (1975). Toward an applied theory of experiential learning. In C.L. Cooper (Ed.) Theories of group processes (pp. 33-57). New York: J. Wiley & Sons.
- Lieberman, M., & DeVos, E. (1984). Adventure-based counseling and physical education, gifted/talented modifications of Project Adventure, Final evaluation report, August, 1984. (Available from Project Adventure, Inc., P O Box 100, Hamilton, MA 01936).
- Lieberman, M. & DeVos, E. (1982). Adventure-based counseling, Final evaluation report, September, 1982. (Available from Project Adventure, Inc., P O Box 100, Hamilton, MA 01936).
- Lombardo, J., & Berzonsky, M. (1975). Locus of reinforcement control, self-image disparity, and self-acceptance: A replication. Journal of Genetic Psychology, 127, 147-148.
- Metcalf, J. A. (1976). Adventure programming. Washington, DC: National Institute of Education. (ERIC Documentation Reproduction No. EP 118 336).
- Miles, M., & Huberman, A. (1984). Qualitative data analysis, A source book of new methods. Beverly Hills, CA: Sage Publications, Inc.

- Naches, A., & Roberts, J. (1967). An evaluation of several effects of the Title III ESEA "Dare to Care" Program on involved students, faculty, parents and community members. Adam County School District No. 14, Denver, CO. From R. Godfrey (Ed.), 1974. A review of research and evaluation literature on Outward Bound and related educational programs. Conference of Experiential Education, October, 1974. (ERIC Document Reproduction Service No. 141-039).
- Nickerson, E., & O'Laughlin, K. (Eds.). (1982). Helping through actions: Action-oriented therapies. Amherst, MA: Human Resource Development Press.
- Nickerson, E., & O'Laughlin, K. (1980). It's fun - but will it work?: The use of games as a therapeutic medium for children and adolescents. Journal of Clinical Child Psychology, Spring, 78-81.
- Nowicki, S., & Barnes, J. (1973). Effects of a structured camp experience on locus of control orientation. Journal of Genetic Psychology, 22, 247-252.
- Nowicki, S., & Strickland, B. (1973). A locus of control scale for children. Journal of Consulting and Clinical Psychology, 40(1), 148-154.
- Nowicki, S., & Roundtree, J. (1971). Brief reports, Correlates of locus of control in a secondary school population. Developmental Psychology, 4(2), 477.
- Nye, R. P. (1976). The influence of an Outward Bound program on self-concepts of the participants. Dissertation Abstracts International, 37, 142A.
- Prawat, R., Grissom, S., & Parish, T. (1979). Affective development in children, grades 3 through 12. Journal of Genetic Psychology, 13, 37-49.
- Petrus, E. (1977). Teaching group dynamics in an intensive small group laboratory in a wilderness setting. Dallas, TX: Southwestern Social Science Assoc., (ERIC Document Reproduction Service No. 152 604).
- Project Adventure, Inc. (undated). Adventure-based counseling. (Available from Project Adventure, Inc., P O Box 100, Hamilton, MA 01936).

- Project Adventure, Inc. (undated). Suggested activities and initiative games for use in adventure-based counseling programs. (Available from Project Adventure, Inc., P O Box 100, Hamilton, MA 01936).
- Quimby, T. (1983). The effect of Project Adventure on selected affective and psychomotor outcomes. Dissertation Abstracts International, 43(09) 2929-A.
- Radcliffe, P. (undated). Clinical diagnosis: Ego structure, developmental lines and the assessment of behavior. (Available from Project Adventure, Inc., P O Box 100, Hamilton, MA 01936).
- Radcliffe, P. (undated). The adventure based counseling group. (Available from Project Adventure, Inc., P O Box 100, Hamilton, MA 01936).
- Radcliffe, P. (undated). Confronting passive behavior through outdoor experience. (Available from Project Adventure, Inc., P O Box 100, Hamilton, MA 01936).
- Raiola, R. (1986). Outdoor leadership and counseling - A trans-theoretical model for communication and problem-solving. In L. Buell & M. Gass (Eds.) Proceedings Journal of 14th Annual Conference of Association of Experiential Education, Moodus, CN.
- Rath, L, Harmin, M., & Simon, S. (1964). Values and teaching. Columbus, OH: Merrill Publishing.
- Risk, P. (1976). Effects of an experiential wilderness survival experience on self-concept, personality and values. Dissertation Abstracts International, 37, 6307B.
- Rogers, R. J. (1979). Leading to share -- sharing to lead. Ontario, Canada: Council of Outdoor Educators of Ontario (ERIC Document Reproduction Service No. ED 178 234).
- Rohnke, C. (1984). Silver bullets. Hamilton, MA: Project Adventure, Inc.
- Rohnke, C. (1977). Cowtails & cobras. Hamilton, MA: Project Adventure, Inc.

- Rotter, J. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. Journal of Clinical and Consulting Psychology, 43(1) 56-67.
- Rotter, J. (1954). Social learning and clinical psychology. Englewood Cliffs, NJ: Prentice-Hall.
- Selman, R. (Ed.). Assessing interpersonal understanding: an interview and scoring manual in five parts constructed by the Harvard-Judge Baker Social Reasoning Project. Boston, MA: Judge Baker Guidance Center.
- Selman, R. (1980). The growth of interpersonal understanding, developmental and clinical analyses. New York: Academic Press.
- Shambaugh, P. W. (1978). The development of the small group. Human Relations, 31, 283-295.
- Smith, M. A. (1972). An investigation of an Outward Bound experience on selected personality factors and behaviors in high school juniors. Dissertation Abstracts International, 32, 6141A.
- Slavson, S. R. (1947). The practice of group therapy. New York: International Universities Press.
- Stich, T. and Gaylor, M. (1983). Outward Bound: An innovative patient education program. Hanover, NH: Dartmouth Outward Bound Mental Health Project. (ERIC Document Reproduction Service No. 247 047).
- Stremba, R. H. (1977). A study of the relationship between participation in an Outward Bound program and changes in self-esteem. Dissertation Abstracts International, 38 3300A.
- Teeter R., Teeter, T., & Papai, J. (1976). Frustration - a game. The School Counselor, March, 264-270.
- Varenhorst, B. (1973). Game theory, simulation and group counseling. Educational Technology, 13, 40-43.

- Weider, R. (undated). Viewing Outward Bound as an experience based counseling model. (Available from Colorado Outward Bound School, Colorado Springs Program, 520 North Tejon, Colorado Springs, CO).
- Wetmore, R. C.. (1972). The influence of Outward Bound school experience on the self-concept of adolescent boys. Dissertation Abstracts International, 33(4), 1498A.
- Winn, W. (1982). Physical challenge approach to psychotherapy. In E. Nickerson & K. O'Laughlin (Eds.), Helping through action, action-oriented therapies (pp. 163-168). Amherst, MA: Human Resource Development Press.
- Wylie, R. (1961). The self-concept, A critical survey of pertinent research literature. Lincoln, NB: University of Nebraska Press.

APPENDIX A Instruments:

Tennessee Self-Concept Scale

Locus of Control in Three Achievement Domains

Selman Interpersonal Awareness Scale

Team Compact

Feedback Sheet

T E N N E S S E E
S E L F C O N C E P T S C A L E

by

William H. Fitts, PhD.

Published by
Counselor Recordings and Tests

Box 6184 - Acklen Station

Nashville, Tennessee 37212

INSTRUCTIONS

On the top line of the separate answer sheet, fill in your name and the other information except for the time information in the last three boxes. You will fill these boxes in later. Write only on the answer sheet. Do not put any marks in this booklet.

The statements in this booklet are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Do not omit any item! Read each statement carefully, then select one of the five responses listed below. On your answer sheet, put a circle around the response you chose. If you want to change an answer after you have circled it, do not erase it but put an X mark through the response and then circle the response you want.

When you are ready to start, find the box on your answer sheet marked time started and record the time. When you are finished, record the time finished in the box on your answer sheet marked time finished.

As you start, be sure that your answer sheet and this booklet are lined up evenly so that the item numbers match each other.

Remember, put a circle around the response number you have chosen for each statement.

Responses	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	1	2	3	4	5

You will find these response numbers repeated at the bottom of each page to help you remember them.

1.	I have a healthy body.....	1
3.	I am an attractive person.....	3
5.	I consider myself a sloppy person.....	5
19.	I am a decent sort of person.....	19
21.	I am an honest person.....	21
23.	I am a bad person.....	23
37.	I am a cheerful person.....	37
39.	I am a calm and easy going person.....	39
41.	I am a nobody.....	41
55.	I have a family that would always help me in any kind of trouble	55
57.	I am a member of a happy family.....	57
59.	My friends have no confidence in me.....	59
73.	I am a friendly person.....	73
75.	I am popular with men.....	75
77.	I am not interested in what other people think.....	77
91.	I always tell the truth.....	91
93.	I get angry sometimes.....	93

Responses	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	1	2	3	4	5

2.	I like to look nice and neat all the time.....	2
4.	I am full of aches and pains.....	4
6.	I am a sick person.....	6
20.	I am a religious person.....	20
22.	I am a moral failure.....	22
24.	I am a morally weak person.....	24
38.	I have a lot of self-control.....	38
40.	I am a hateful person.....	40
42.	I am losing my mind.....	42
56.	I am an important person to my family and friends.....	56
58.	I am not loved by my family.....	58
60.	I feel that my family doesn't trust me.....	60
74.	I am popular with women.....	74
76.	I am mad at the whole world.....	76
78.	I am hard to be friendly with.....	78
92.	Once in a while I think of things too bad to talk about....	92
94.	Sometimes, when I am not feeling well, I am cross.....	94

Responses	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	1	2	3	4	5

7.	I am neither too fat nor too thin.....	7
9.	I like my looks just the way they are.....	9
11.	I would like to change some parts of my body.....	11
25.	I am satisfied with my moral behavior.....	25
27.	I am satisfied with my relationship to God.....	27
29.	I ought to go to church more.....	29
43.	I am satisfied to be just what I am.....	43
45.	I am just as nice as I should be.....	45
47.	I despise myself.....	47
61.	I am satisfied with my family relationships.....	61
63.	I understand my family as well as I should.....	63
65.	I should trust my family more.....	65
79.	I am as sociable as I want to be.....	79
81.	I try to please others, but I don't overdo it.....	81
83.	I am no good at all from a social standpoint.....	83
95.	I do not like everyone I know.....	95
97.	Once in a while, I laugh at a dirty joke.....	97

Responses	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	1	2	3	4	5

8.	I am neither too tall nor too short.....	8
10.	I don't feel as well as I should.....	10
12.	I should have more sex appeal.....	12
26.	I am as religious as I want to be.....	26
28.	I wish I could be more trustworthy.....	28
30.	I shouldn't tell so many lies.....	30
44.	I am as smart as I want to be.....	44
46.	I am not the person I would like to be.....	46
48.	I wish I didn't give up as easily as I do.....	48
62.	I treat my parents as well as I should..... (Use past tense if parents are not living)	62
64.	I am too sensitive to things my family says.....	64
66.	I should love my family more.....	66
80.	I am satisfied with the way I treat other people.....	80
82.	I should be more polite to others.....	82
84.	I ought to get along better with other people.....	84
96.	I gossip a little at times.....	96
98.	At times I feel like swearing.....	98

Responses	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	1	2	3	4	5

13.	I take good care of myself physically.....	13
15.	I try to be careful about my appearance.....	15
17.	I often act like I am "all thumbs".....	17
31.	I am true to my religion in my everyday life.....	31
33.	I try to change when I know I'm doing things that are wrong	33
35.	I sometimes do some very bad things.....	35
49.	I can always take care of myself in any situation.....	49
51.	I take the blame for things without getting mad.....	51
53.	I do things without thinking about them first.....	53
67.	I try to play fair with my friends and family.....	67
69.	I take a real interest in my family.....	69
71.	I give in to my parents..... (Use past tense if parents are not living)	71
85.	I try to understand the other fellow's point of view.....	85
87.	I get along well with other people.....	87
89.	I do not forgive others easily.....	89
99.	I would rather win than lose in a game.....	99

Responses	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	1	2	3	4	5

14.	I feel good most of the time.....	14
16.	I do poorly in sports and games.....	16
18.	I am a poor sleeper.....	18
32.	I do what is right most of the time.....	32
34.	I sometimes use unfair means to get ahead.....	34
36.	I have trouble doing the things that are right.....	36
50.	I solve my problems quite easily.....	50
52.	I change my mind a lot.....	52
54.	I try to run away from my problems.....	54
68.	I do my share of work at home.....	68
70.	I quarrel with my family.....	70
72.	I do not act like my family thinks I should.....	72
86.	I see good points in all people I meet.....	86
88.	I do not feel at ease with other people.....	88
90.	I find it hard to talk with strangers.....	90
100.	Once in a while I put off until tomorrow what I ought to do today.....	100

Responses	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	1	2	3	4	5

DIRECTIONS

On the following three pages there is a series of questions and statements for you to think about. At the start of each question or statement there is a space to mark "Yes" and a space to mark "No". If you agree with the statement or question, make an "X" in the space under "Yes". If you disagree with the statement or question, make an "X" in the space under "No". There are no right answers, so just mark the answer that comes closest to your opinion.

Since your name does not appear on this questionnaire, no one will know how you have answered any question or statement. An honest response is most important.

Do not leave any question or statement unanswered.

Thank you for your cooperation.

Yes No

- — When friends or family get mad at you, it's usually because of something you did to make them mad.
- — Many times the amount of work and practice you put in has little to do with how well you can dance.
- — If you are invited to a party is it probably because nearly everyone is being invited?
- — The way others treat you depends mostly on how you act towards them.
- — When you do well in a game like darts or horseshoes, is it mostly luck?
- — If you didn't do well in school, it's probably because the teachers gave you especially hard work to do.
- — If members of a family get along well together, it is mostly luck.
- — Some people are just meant to be lonely, no matter how hard they try to make friends.
- — If you want to, you can solve hard problems by spending time thinking about them.
- — When you do better than usual at a sport, is it probably because those you played with didn't play as well as they normally do?
- — Do you feel that there is little you can do about how strong you are?
- — If people think you are smart, is it probably because you act that way most of the time?
- — When someone doesn't like you, there's little you can do about it.
- — Do you believe that you will get the grades you are getting no matter how hard you try to do better?
- — Winning at cards is mostly luck.
- — If a person tried to learn to swim but failed, it would most likely be because he didn't get the right help.
- — When you get blamed for something, does it often seem that it's for no good reason at all?
- — Suppose someone tells you, "You aren't a very good leader". Would he probably say this to you because you haven't tried very hard to act like a leader?
- — Many times the questions on tests have so little to do with what is covered in class that studying for the tests is really useless.
- — When you read a story and don't remember much of it, it's probably because the story isn't well written.
- — In sports like golf and basketball, winning depends a lot on the "breaks" of the game.
- — If you have a hard time doing well in a sport, more than likely it is because the sport is difficult for everybody.

- — It's almost impossible to say why some people are liked and admired more than others.
- — How well you do in physical activities depends on how much you prepare for them.
- — If you do better than usual on a test, it is probably because the test was easy.
- — If you want to be a member of a special club or group but don't get to be, is it probably because it's very hard to become a member?
- — To become a fast runner, it is more important to have a good coach than to practice hard.
- — Is there anything you can do about how popular you are?
- — People who are good in math just seem to be born with a talent for it.
- — If your parents say to you, "Your school work isn't very good", is it probably because you haven't been studying enough?
- — If you don't get good grades, it is probably because you don't act very intelligent.
- — The more you practice, the farther you can throw a ball.
- — If you finish a puzzle fast, is it because you worked on it carefully?
- — Can you usually do well in sports when you want to?
- — Suppose that more people than usual start telling you they like you and start saying nice things about you. Would this most likely happen because you tried harder to be friendly?
- — If you are good at riding a bicycle, it's mostly because it's easy to do.
- — Being good looking or having a good personality makes a lot of difference in how many "dates" you have.
- — Most of the time do you feel that you have a lot to say about what your friends decide to do?
- — Suppose you want to jump high, but you don't succeed. Would this probably happen because you didn't try hard enough?
- — If you want to, you can learn to lift heavy weight.
- — In the long run, you get all the respect you deserve.
- — If you want to make friends with someone but you fail, would it probably be because it's just not very easy to make friends?
- — If a teacher gives you a bad grade, would it probably be because she "had it in for you"?
- — Suppose you don't do as good as you normally do in a game like baseball or tennis. Would this probably be due to bad luck more than anything else?
- — When you want to learn how to play a new card game, but don't seem to understand how to play, is it probably because you didn't spend enough time trying to learn?
- — Generally speaking, there is little you can do to become better at most sports.

DIRECTIONS

Please answer the questions as best you can. Remember there are no right or wrong answers. The why questions will be the most difficult, but they help us understand how you really think or feel about problems.

INTERPERSONAL AWARENESS INTERVIEW

WHO COMES FIRST: YOUR FRIEND OR YOUR GROUP?

Jerry had just moved to a new school and was feeling pretty lonely. He didn't know anyone, didn't have any friends, so every day after school he would just come right home and watch TV. Jerry was beginning to feel like he would never like his new school, until one day when a guy named Bob came up to Jerry and introduced himself. "Hi, Jerry. My name's Bob. I heard one of the teachers say you were new here. If you're not doing anything after school today, how about coming over to shoot some baskets?" Soon the two of them were talking about sports, where Jerry was from, and the kind of things he could do in his new school. Each day Jerry and Bob would get together after school and pretty soon they became good friends. They would do everything together, and when one had a problem, the other would always help out.

One day Jerry was out shooting baskets by himself when the basketball coach saw him and invited him to try out for the team, the Redman Raiders. Jerry made the team without any problem. Every day after school he would practice with the rest of the team, and he began to feel part of the group. The team was more than just sports. After practice they would go out. Some of them, including Jerry, even formed a club with meetings and a president.

But as Jerry spent more time with the group, he saw less and less of Bob, his old friend. It seemed as though the group was kind of replacing Bob, and Jerry wasn't sure he wanted it that way. Later that week Bob called Jerry up. The conversation was tense since Bob knew that Jerry had become friends with that group of guys. "Jerry, this is Bob. Say, I was wondering if you're not too busy on Thursday night my family is having a little birthday party for me. Maybe you could come over for dinner that night." Jerry didn't know what to do. He had already promised the guys he would make it to the club meeting they were going to have that night. But if he didn't go to the party he would be letting down his first and best friend in the new school. The meeting was a pretty important one, since Jerry thought he had a good chance to be elected president that night. But a friend's birthday party is pretty important, too. Jerry couldn't decide which was more important, his best friend or the group.

1. What do you think Jerry should do, go to his best friend's birthday party or stay with the whole group of friends. Why?

2. If Jerry feels guilty about not being with his best friend, why would that be?

3. If someone, like Bob, was too shy to make friends, what do you think would have made him that way?

4. If someone were shy when they were young, do you think they would be shy when they grew up? _____ In what ways do people change as they get older?

5. Why are good friends important?

6. What do you think makes for a real close friendship like Bob and Jerry have?

7. Do you think trust is important for a good friendship? _____ Why?
What is trust, anyway?

8. Do you think Bob might be jealous of Jerry's being with the group?
_____ What does it mean when somebody is jealous?
9. If friends get into an argument, what is the best way to settle it?
Why is that a good way?
10. What usually makes friendships break up?
11. When you have a group, like Jerry's, what holds it together?
Do you think a kind of team spirit among the members would help?
What do people mean by team spirit?
12. One problem that sometimes happens in a group is that a person
will go along with what the group is doing, even though he
doesn't really want to, just because the rest of the group is
doing it. Why is that?

13. Why do groups usually need rules?
14. How should a group decide what rules they will have? Should the leader decide or should everybody decide? Why?
15. What sort of things make a team work well together? Would teamwork help? What is teamwork, anyway?
16. Does it help a group like a team or just a group of friends to have some kind of leader? Why?

TEAM COMPACT

Over the past few weeks we have learned how to work together as a team. Each week a challenging game or task or problem was set up for us to solve. These initiative tests were designed to help us learn more about ourselves as individuals and as a group. We learned about some of our personal weaknesses and strengths. We learned how our behavior contributes to the success and/or failure of the team.

Now the games are over. Next week we will embark on a day long expedition in the mountains. We will climb the Maiden Cliffs. A mountain is awesome and it commands respect. If we do not navigate skillfully -- we will get lost. If we do not plan carefully -- we will be hungry and cold. If we do not know first aid -- we will risk pain. If we behave foolishly or callously on the initiative test we will compromise group morale and the team's resolve to succeed.

With the little time available to us we have tried to prepare for this expedition intellectually and psychologically. We have learned certain technical skills and how to work together as a team. Each of us has acknowledged one personal behavior or habit or characteristic that might be unhelpful to the team. This document is a Team Compact. In signing this Team Compact, we accept responsibility for our actions as individuals and as a team, and we commit ourselves to positively support each team member in a helpful manner.

APPENDIX B

Summary of Robert Selman's Developmental Theory of Interpersonal Awareness

The Selman Interpersonal Awareness Scale is a cognitive developmental measure of interpersonal awareness as defined by Professor Robert Selman of the Harvard Graduate School of Education and the Judge Baker Child Guidance Clinic. Selman has described five stages of interpersonal awareness.

Stage 0, Egocentric and Physicalistic Connections.

At this stage, the psychological qualities of individual or social relations are generally reduced to their physical expression, i.e., the physical presence of a playmate. The child understands social interaction as being governed by physical realities, i.e., toys and games, rather than feelings or interpersonal bonds established through collaborative effort.

Stage 1, Individual Intentions and Unilateral Relations.

At this stage, children have become aware that each person's actions are informed by unique and separate feelings or intentions. Though able to understand the possibility that someone else's intentions could very well be different from their own, children at this stage are incapable of coordinating those different feelings/intentionalities or able to consider more than one feeling or thought within any given social context. Friendship, as such, consists largely of friendly acts, i.e., one-way assistance.

Stage 2, Introspective Bilateral Partnerships.

The child now has the cognitive ability to simultaneously coordinate two perspectives. Instead of seeing group relations as unilateral actions by each participant, group relations are now seen as bilateral feelings of affection. The social group is perceived, metaphorically, as a chain

in which each link is represented by a pair of friends. As such, each individual is, bilaterally, linked to only two other participants in this associative chain at any one time. There is still an inability to perceive groups as larger, shared communities. The group is now understood more as a collection of specific individual relationships and/or a string or reciprocating interactions.

Stage 3, Stability, Mutuality and Homogeneous Community.

At this stage, the individual sees the social world as a stable, yet relatively simple, social system. The group is perceived as a complete unit, bound together by common feelings and governed by consensus. Community and closeness are equated with homogeneity of values. Because homogeneity of values is considered the foundation of community and interpersonal closeness individuals at this stage express a high concern for uniformity, equality and mutual sharing.

Stage 4, Pluralistic Self and Social Systems.

The individual views the world as a set of interdependent subsystems. Groups are viewed from a larger, sociological perspective. Any particular group can be recognized as a multifaceted system interacting with individual differences. Both the society-at-large and individual social groups are seen as pluralistic communities in which individual differences are not suppressed, but coordinated in the service of shorter or longer term goals. The complex relationship between individual autonomy and interdependence is recognized and resolved through an understanding of the pluralistic nature of social relations (Lieberman and DeVos, 1984).

In order to present the above brief overview of Selman's stage theory, the investigator has collapsed a number of categories and concepts that Selman has taken great care to make clear and distinct. While unravelling the "warp" and "weave" of the "social fabric", Selman follows four specific "strands" as they weave through the stages of development. He identifies each strand as a specific domain of interpersonal understanding. The four domains are: Individual, Friendship, Peer Group and Parent/Child Relations. In the process of empirically validating his theory, Selman further narrowed his foci and identified a series of specific interpersonal issues that are particularly characteristic of each domain.

