

Raising Self-Esteem and Preventing Drug Abuse Among Sixth Graders: Effects of an Adventure Experience

Dana R. Cason, Lee Gillis, Heather Schwarz, and Sandy Bell

The transition period from childhood into adulthood can be difficult in a society where adult alcohol and drug use is an acceptable cultural norm. In a meta-analysis of secondary school drug prevention programs, Tobler (1986) identified five modalities on which prevention programs were based: 1) knowledge only; 2) affective emphasis only; 3) peer programs; 4) knowledge plus affective emphasis; and 5) alternatives. Although the peer programs were effective for the general population, only the alternative programs (with an emphasis on one-on-one relationships, job skills, tutoring, and physical adventure) proved effective for the at-risk population. Tobler speculated that adventurous experiences like mountain climbing can improve disadvantaged adolescents' attitudes by giving them the opportunity to control a part of their lives, perhaps for the first time.

This article describes the effects of an adventure experience program on sixth-grade students. The goals of the program were 1) improvement of student self-esteem as a component of drug abuse prevention, and 2) improvement of student behavior.

Adventure Experience Programs

In the last 30 years, a great deal of attention has been focused on the premise that physically challenging experiences allow individuals to learn about themselves and others. Essentially, this is learning by doing. The adventure-insight principle led Dr. Kurt Hahn, a German educator, to develop an adventure education program called "Outward Bound" for young seamen during World War II (Schoel et al. 1988). Hahn believed that creating stressful situations would unify groups, and that hard-won successes would establish confidence

and a more positive self image (Wilman and Chun 1973). Hahn started several schools that emphasized wilderness skills, physical fitness, craftsmanship, and service to the community (Shulze 1971). The success of his schools led to the establishment of many similar programs all over the world.

In the Hahn tradition, Jerry Pieh, a high school principal in Hamilton, Massachusetts, sought in 1970 to incorporate experiential ideas into the standard high school curriculum. With the help of many teachers and a three-year federal grant, he wrote adventure-based activities into the physical education, English, history, science, theater arts, and counseling departments in a program that became "Project Adventure" (Schoel et al. 1988).

The adventure trend begun by the staff of Project Adventure grew to encompass many educational institutions in addition to schools: camps, prisons, colleges, YMCA centers, and corporate training facilities. The flexibility of wilderness adventure therapy has also fostered special programs for sex offenders, rape victims, schizophrenics (Bacon and Kimball 1989), and group counseling for couples and families (Gillis and Bonney 1986).

In the last 10 years, there have been many practical how-to manuals published for setting up and conducting adventure activities (Rohnke 1984; 1988; 1989; and 1991). There are also specific examples of ways to adopt adventure into a school curriculum. For instance, a book published by Project Adventure, *Teaching Through Adventure* (Lentz et al. 1976), contains very specific descriptions of adventure programs that have been established and refined in middle schools and high schools. One English teacher used a rock-climbing expedition to help her students reach "new heights." The students

Dana R. Cason is a graduate student, Lee Gillis is an associate professor, and Heather Schwarz graduated from the Psychology Department of Georgia College, Milledgeville, Georgia. Sandy Bell is a guidance counselor at Boddie Middle School, Milledgeville, Georgia (Baldwin County School District, enrollment 6,679).

were asked to write about their experience and their teacher observed the quality of work done afterwards and compared it to the quality of their previous work.

Shulze (1971) describes the reasons that 12 high schools gave for establishing their adventure education projects. Examples included:

- to improve student-to-student relationships;
- to relax racial attitudes;
- to improve student-staff relationships;
- to foster class unity.

The evaluation procedures used for Shulze's study were observations of classes, discussions with a variety of school personnel, and questionnaires. Although the evaluations were somewhat subjective, the teachers involved in these adventure education experiences reported identifying more closely with their students, and the students reported an increased sense of accomplishment and potential.

Research studies yielding empirical data from which causal relationships can be interpreted are hard to come by in the adventure education field. There are many fluctuating variables beyond the control of the evaluator, including weather, group dynamics, and the level of stress (Bandoroff 1990). However, five pretest/posttest studies on the effect of wilderness-adventure therapy on delinquent youth reported significant increases in self-esteem or self-concept (Kelly and Baer 1969; Porter 1975; Kimball 1979; Gibson 1981; and Weeks 1985).

Genesis of the Boddie Middle School Program

In 1990, school officials at Boddie Middle School in Milledgeville, Georgia, decided something extraordinary had to be done for its sixth-grade class, in light of the class's behavior problems and disturbing knowledge of drug-related lifestyles.

Assistant principal Becky Brock and guidance counselor Sandy Bell chose an adventure-based program to help the students improve their classroom behavior, develop coping skills to deal with alcohol and drug abuse in their homes, and increase their ability to make good decisions. They wrote a grant proposal requesting funding to incorporate adventure-based activities into their school. The proposed program included the building of a "low ropes" course and implementation of an outdoor educa-

tion retreat experience. It was hoped that the participants' self-esteem scores would increase and that higher self-esteem would help them make good decisions concerning drug use. In January of 1991, the Baldwin County School System was awarded a \$102,000 federal grant under the Drug-Free Schools and Communities Program (MacDonald 1991).

Description of the Program

Camp DETOUR (Drug Education Through Outdoor Utilization of Recreation) was a four-day outdoor education experience for sixth-grade students, held at Unicoi State Park in the northern Georgia mountains. In all, about 150 sixth graders attended.

Planning of the experience began in early 1991. After taking an informal drug use survey, school officials developed a curriculum. In February, letters were sent home explaining the adventure education project. In April, students were assigned to 12 teams, with team leaders chosen from among the teachers. These leaders planned curricula and adventure-based activities for the retreat.

In May, letters were sent home to parents describing what sort of clothes and equipment to pack, and the students were briefed on ways to behave while on the trip. Three team meetings were held in which the students and teachers got acquainted and comfortable with each other by playing some name games and engaging in trust-building activities.

Camp DETOUR took place for four days in May 1991. During this retreat, classroom-type instruction and outdoor activities were used to promote wellness (physical, mental, and emotional), with an emphasis on living a chemical-free life.

Each of the 12 teams of students took part in a variety of 40-minute classes on topics such as Native American culture, forest ecology, assertiveness/resistance techniques, multicultural awareness, first aid, and alternatives to drugs and sexuality. Other activities included crafts, non-competitive games, volleyball, and hiking. During the evenings, activities included square dancing, movies, bingo, and campfires with ghost stories or Native American stories.

Volunteers from the community (county and city law enforcement personnel, a drug consultant, Georgia College personnel, counselors,

teachers, board of education members, and parents) assisted in leading activities and teaching the retreat classes.

Program Evaluation

Participants —

Of the 155 sixth graders who participated in Camp DETOUR, complete data were collected for 60 participants (40 percent). Of these, 19 (32 percent) were black females, 15 (25 percent) white males, 14 (23 percent) white females, and 12 (20 percent) black males.

Evaluation Instruments —

Self-Esteem Inventory. To assess changes in self-esteem, students were given a pretest and posttest of Battle's Culture-Free Self-Esteem Inventory (CFSEI) for Children, Form B. The CFSEI for Children consists of 30 items divided into two groups: those that indicate high self esteem and those that indicate low self esteem. The student checks each item either "yes" or "no." The instrument contains five subscales: general self-esteem; social/peer-related self-esteem; academics/school-related self-esteem; parents/home-related self-esteem; and "lie" items (items that indicate defensiveness).

Child Behavior Checklist. Pretests (in April) and posttests (in May) of the Teacher's Report Form of the Child Behavior Checklist (CBCL) were given. The CBCL is designed to obtain teachers' descriptions of their students' behavior in a standardized format. For each gender/age group, eight or nine behavior problem scales exist. Although some of the descriptive labels given to the scales correspond to traditional diagnostic terms, none of the scales is directly equivalent to any clinical diagnosis. Additionally, the problem behavior scales categorize behaviors as either internalizing (social withdrawal, depression, immaturity, obsessive-compulsive tendencies, and uncommunicativeness) or externalizing (delinquent, aggressive, hyperactive, sex problems, or cruelty).

Behavioral Observations. A measure of attendance and tardiness was taken in the first two months of the school years preceding and following the adventure experience. Suspension records were kept for the entire year of the experience and for the first semester of the school year following the experience. All

suspensions, whether in school or out, were weighted equally.

Results and Discussion

The goal of the program was to increase the students' self-esteem through adventure and traditional classroom activities. It was assumed that higher levels of self esteem would help the students resist peer pressure and abstain from using drugs.

An unexpected but welcome outcome of the adventure experience was the establishment of greater rapport and trust between the sixth graders and the school faculty. Observing the students the following year as seventh graders, Assistant Principal Becky Brock noted great improvement in their behavior and their attitudes. She remarked that these students tended to look on adults as people to whom they could go with their problems, and this knowledge created a new spirit of cooperation.

Self-Reported Self-Esteem —

An analysis of variance (ANOVA) for repeated measures revealed a significant difference between pretest and posttest total Culture-Free Self-Esteem Inventory scores ($F[1,59]=6.49$, $p=0.0135$), and between pretest and posttest scores on the general subscale ($F[1,59]=10.25$, $p=0.0022$) (see Figure 1, page 41). No significant differences were found for any other scales.

The increased scores on the Total and General Subscales of the Culture-Free Self-Esteem Inventory suggest that the retreat was successful in providing the students with opportunities to challenge themselves and emerge more self-confident and assured. Exactly which specific activities enhanced the CFSEI scores is unknown; the enhanced scores may merely be the result of the Hawthorne Effect. The fact that the students were receiving special attention could conceivably be enough on its own to raise their self esteem. It is important to note that race and gender were not significantly related to any outcome measurements.

Teacher Ratings of Student Behavior —

As shown in Figure 2 on page 41, the students' problem behavior scores were significantly *higher* after the adventure experience on both the internal ($F[1,59]=23.45$, $p=0.001$) and

Figure 1.—Self-Esteem Inventory (SEI) Scores of Sixth Graders, Before and After Camp DETOUR

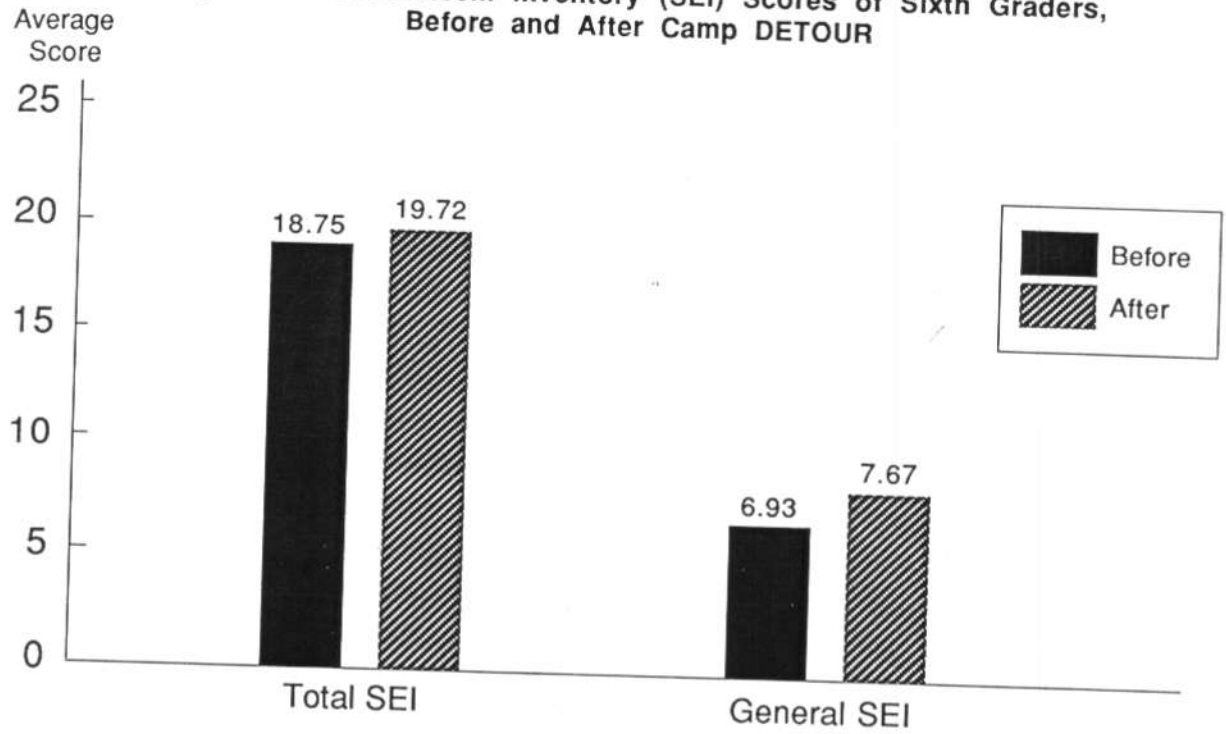
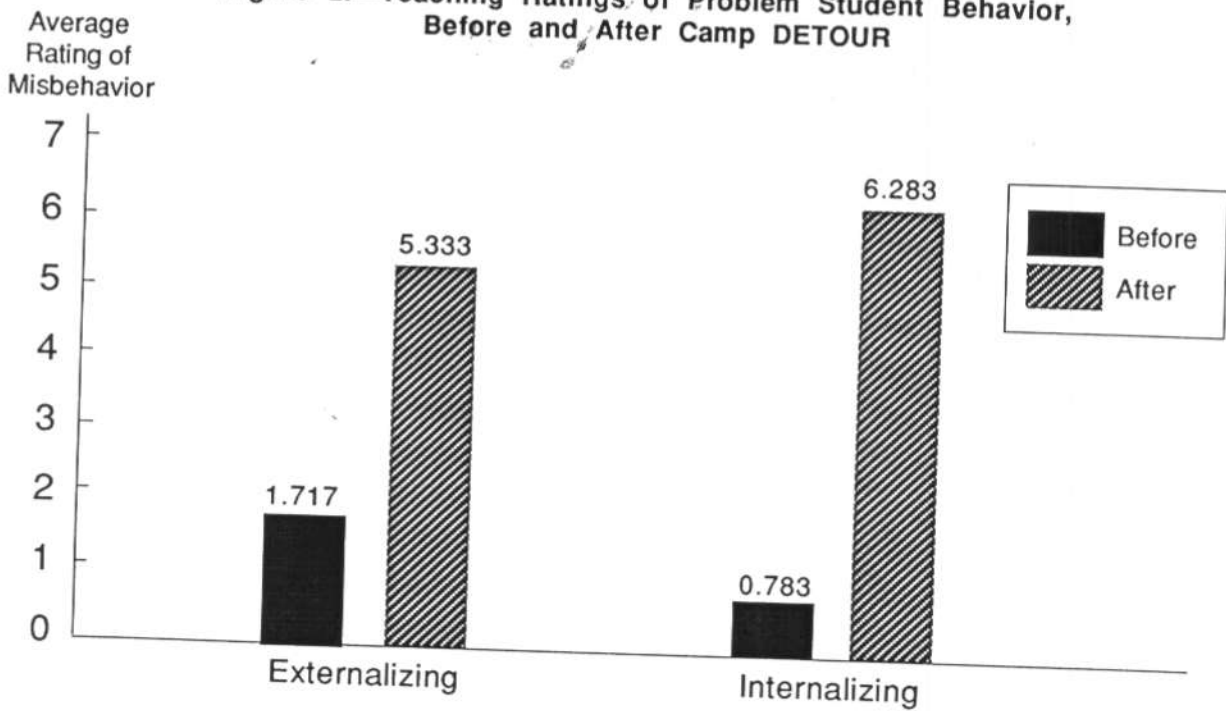


Figure 2.—Teaching Ratings of Problem Student Behavior, Before and After Camp DETOUR



the external ($F[1,59]=9.81, p=0.0027$) behavior scales of the CBCL Teacher Report Forms.

The increase in the teacher-rated problem behaviors exhibited by the students following the retreat was surprising to the researchers, especially since the suspension data did not concur with this finding. However, upon closer inspection, many possible explanations for this finding are raised.

For instance, the CBCLs may have been filled out in haste by teachers. There were some contradictions between the written comments and the numerical ratings given to the students, and many of the forms were not correctly nor completely filled out. Because evaluations were given near the end of the school year when teachers are usually bombarded with a great deal of paperwork, the haste is understandable. Additionally, when students are anticipating summer vacation, it is intuitively obvious that their behavior could worsen because their interest in school has decreased.

In the future, researchers should work more closely with teachers to make sure that the most important aspects of data collection are understood by all. For example, in this study it seemed that more time and care were put into the qualitative comment section of the CBCLs by one teacher rather than the numerically scaled questions. Although the qualitative comments can increase understanding of a par-

ticular student's behavior, they cannot be statistically analyzed like the quantitative data.

Behavioral Observations —

An ANOVA for repeated measures revealed a significant decrease in the number of suspensions before and after the adventure experience ($F[2,59]=6.86, p=0.0112$). Follow-up data taken one year later showed that suspensions were still down, but the difference was not significant (see Figure 3).

There were no significant differences between the number of days that students were tardy or absent before and after the study.

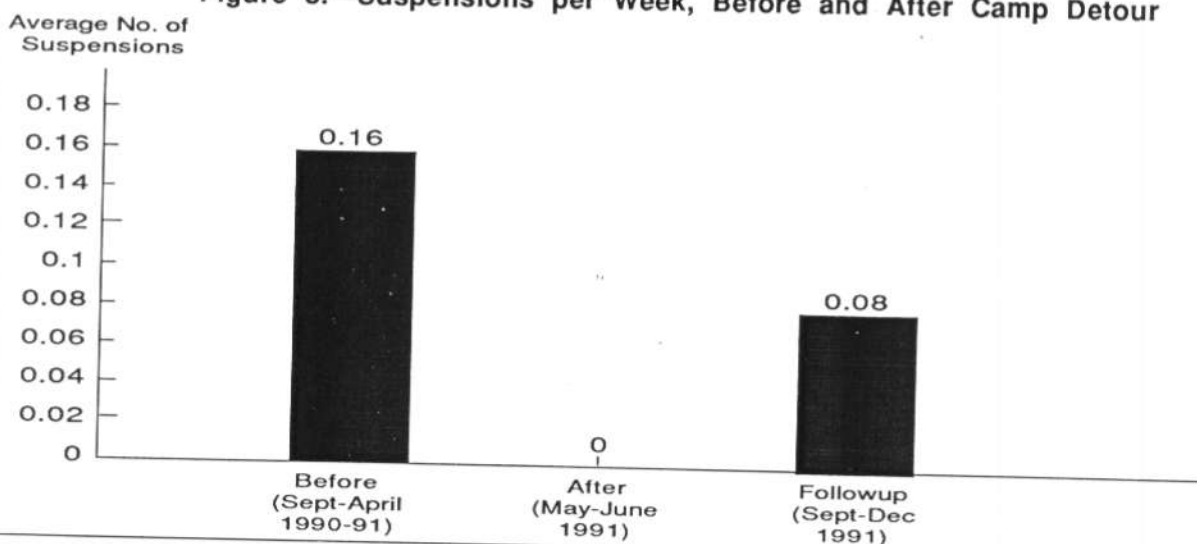
The student suspension data seem to contradict the teachers' ratings of student behaviors. The number of suspensions significantly decreased after the experience, and they were still down (although not significantly) a year later.

Conclusion

Camp DETOUR has been repeated for new sixth-grade classes in subsequent years. In addition, the original group of Camp DETOUR students have participated in follow-up activities as seventh and eighth graders (including a "Unicois Revisited" day camp) to build on the foundation laid by their original outdoor education experience.

This study supports the hypothesis that experiential learning and adventure-based

Figure 3.—Suspensions per Week, Before and After Camp Detour



education can have a positive effect on student self-esteem. The researchers do not assume that the adventure education experience alone is responsible for the increase. In order to be able to make a definite, causal statement about the effects of adventure education, several changes would need to be made to the design:

- random assignment of students to either an experimental group or a control group;
- control group that leaves the normal school environment but does not do adventure activities;
- control of more independent variables.

Although these textbook conditions are needed to make causal inferences, they are difficult to orchestrate in a school with a budget constraint and an immediate need for drug education/intervention. It is, unfortunately, impossible to discern which parts of the experience were the most effective. The many process variables mentioned in the introduction (weather, instructor style, etc.) make the determination of effective processes difficult.

Some evidence in this study indicated an improvement in classroom behaviors and student attitudes, but these findings were mixed. Overall, the most positive finding of the study was a strong, immediate improvement in sixth graders' self-esteem. The assumption is that this will contribute to the students' ability to resist becoming involved with drug abuse. Both students and faculty at Boddie Middle School rated the program a success. □

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