This study field-tested a decision-making program for groups of 20 at-risk seventh grade students who met for 45 minutes once a week for nine weeks to learn health and physical education, math, English, social studies, science, and decision-making. One hundred and five students, some of whom served as control group by not participating in the program, were studied. Although it was not found that participation in the program improved at-risk students' attendance, grades, behavior ratings, or disciplinary actions, the study did show that it was possible to easily identify at-risk students from existing school records. At-risk students in both the treatment group and the control group remained at risk. Observational and anecdotal data of students' participation in the program showed that students did receive benefits sufficient to make them willing to continue their involvement in the program, although their level of improvement was minimal. Two tables illustrate the data. A list of 17 references is included. (BJV)
EVALUATION OF A DECISION-MAKING PROGRAM TO IMPROVE SCHOOL SUCCESS WITH AT-RISK MIDDLE SCHOOL STUDENTS

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The problem of improving school success rates among our least successful students is a growing concern (Cardenas & First, 1985; Mann, 1985; Natriello, McDill, & Pallas, 1985; Sinclair & Ghory, 1987; Teachers' College Record, 1986). The high school dropout rate nationwide is conservatively estimated at 25 percent (Mann, 1985). In the urban areas of Miami and Chicago dropout rates reported are closer to 40 percent (Stephenson & Wilbur, 1986; Toles, Schultz, Rice, Brauer, & Harvey, 1986).

Emerging from a review of the dropout literature is a profile of students who have experienced difficulty in school: multiple retentions in grade; poor grades; a history of truancy; and behavior problems that result in disciplinary action (Catterall & Stern, 1986; Farnworth, Schweinhart & Berrueta-Clement, 1985; Hess & Greer, 1986; Peng, Takai, & Fetters, 1983). Dropouts tend to be from lower SES families, live in single parent homes, and have parents with less than college educations (Rumberger, 1983). Past studies have primarily focused on identifying factors common to students who drop out, rather than testing strategies to prevent students from dropping out.
While little can be done by the schools to change the demographic factors associated with high school dropouts, the schools can do something to address the negative school events experienced by many students prior to dropping out. Hinkley (1979) found that the decision to dropout of school was made at the point where students felt they could no longer cope with an alienating environment. Strother (1986) in a review of dropout prevention programs concluded that in addition to improving students' basic skills and providing work-study experiences, schools need dropout prevention programs staffed by teachers who believe in the potential success of these students and a curriculum that is centered on real-life problem solving.

Casebolt (1988) successfully used a self-contained, multi-grade junior high school classroom to improve 15 at-risk students' grades, attendance, and behavior, using individualized instruction and an aide who served as student advocate. Using a year-long program to foster positive self-concept and decision making skills among middle school students, Scott (1984) found students in the study participated more in decision making and increased achievement in six subject areas. Brown and Greenspan (1983) found significant differences in teachers' perception of at-risk students' behavior, after implementing a social competence curriculum for an hour each week for nine weeks.

Building on the existing literature and particularly on the work done by Brown and Greenspan (1983), O'Sullivan (1988) developed a model of school success which proposed that improving at-risk students' decision-making skills would positively influence student retention. The purpose of this study,
therefore, was to investigate the following question: Could a decision-making program for at-risk middle school students, meeting 45 minutes a week for nine weeks, improve at-risk students' attendance, grades, behavior ratings, and disciplinary actions? Further, the study investigated how at-risk middle school students reacted to participation in the program.

Description of the Study

The study field tested a decision-making program for 20 at-risk middle school students that met for 45 minutes once a week for nine weeks. One middle school among six middle schools in a mid-size city in North Carolina participated in the study. Discussions with the middle school principal led to the identification of a five-teacher team within the school that was willing to work with the researcher. The five teachers taught, 109 seventh grade students in the team, health and physical education, math, English, social studies, and science.

After meeting with the team teachers and discussing the research project, it was decided that 60 students of the 105 students in the team would be identified and matched based on an at-risk rating scale using information available from the first six weeks of the semester. During all design aspects of the study a conscious attempt was made to minimize the disruptiveness of the study in terms of additional data collection requirements burdening both teachers and participating students. The assumption was made that any intervention tested would need to be practically replicable in regular school situations, if it were deemed successful.
Students' progress reports, attendance records, team disciplinary actions, and teacher ratings were to be used in the calculation of at-risk ratings for all students in the team and the 60 students with the highest ratings were divided into 30 matched pairs. From each of the matched pairs one student was to be randomly selected and invited to participate in the study. The remaining 30 students would serve as the control group.

Evaluation of the program used both quantitative and qualitative procedures. At the end of the nine classes, participating students' attendance, grades, behavior ratings, and disciplinary actions for the second nine weeks of the semester were to be compared with those of the matched control group. In addition an outside observer was to attend sessions 1, 5, and 8 of the program. The outside observer would note teacher-student and student-student interactions during the three observed sessions and report any process changes over time. Finally student work and actions were to be recorded and used to gauge student reaction to participation in the program.

Subjects

All 105 students in the team were assigned an at risk rating based on information primarily available from regular teacher records. The school district's policy is to report student progress for the first six weeks of a nine-week grading period, so that parents and students have had some notice prior to report card grade assignments. Grades, conduct ratings, and attendance records were taken from these progress reports. The middle school teacher teams also regularly keep records of team disciplinary
actions, i.e., warnings to students, phone or face-to-face conferences with parents, or referrals for administrative discipline that provided information for the rating of disciplinary actions.

Teacher recommendations for participation in the study were the only data collected outside of the regular record keeping scheme. This was accomplished with an average invested teacher time of less than ten minutes. Each of the teachers assigned a rating of "at-riskness" (0 = not at-risk to 4 = greatly at-risk) to each of the students in the team from a previously compiled list. The rating scale was calculated as follows: each grade of F for five major subjects counted as one point, each conduct rating indicating a need for improvement counted for one point, absences counted as one point for every day missed, the number of team disciplinary actions taken were weighted on a scale of one to three by severity of the action and summed, days spent in in-school or out-of-school suspension were totaled, and teachers rating of at-riskness were averaged. At-risk ratings ranged from one child receiving 34.2 points to seven children receiving no points.

Students were ranked on their at-risk ratings and matched. One exception to matching was made in the case of the student who received the highest at-risk rating (34.2). Since he was rated five points higher than the second highest student (29.2), the decision was made to invite him into the program but exclude him from the study. The 30 pairs ranged in points from 29.2 to 6.0 and within pairs had less than one rating point difference. Students were then randomly assigned by pairs into the treatment
and control groups. All identified students were invited to an orientation session, where the purpose and content of the program were explained, student agreement to participate was elicited, and letters were sent home to obtain parental permission.

Of the 30 students invited to participate in the program, 20 returned parental permission slips and participated in the program. Control group students were correspondingly dropped from the study with their pair mate. Only three pairs were dropped from the upper half of the students rated as most at risk versus seven from the lower half. Of the 20 participating students, 12 were black and 8 were white, including 8 females who were divided evenly on race.

A check for group equivalence was conducted for treatment and control groups. Means and standard deviations on the at-risk ratings and the component measures of the ratings are summarized in Table 1. The results of the group comparisons revealed no apparent differences between the two groups. Students in both groups were on average: in danger of failing one to two major subjects, had received teacher comments for improvement on their progress reports more than five times, had been absent 2 or fewer days out of 30 since the beginning of the school year, had already received one to two disciplinary actions from the team, and were considered at-risk by their teachers.

Insert Table 1 about here.
Measurements

Information available from first semester (second nine weeks) report cards and the team disciplinary action record for the second nine weeks were the primary data sources used to judge the effectiveness of the decision-making program. Observational data were used to describe changes in student-teacher and student-student interactions. In addition student work was collected and teacher observations recorded as part of the decision-making program.

Procedures

The researcher served as teacher for the decision-making program and met with the students on eight times instead of ten due to two snow days. The first meeting was an orientation session for all selected students at which time the researcher explained the purpose of the program to students and the expected outcomes. The second session was an all-day outdoor group problem solving set of activities known as a Ropes Course. The researcher and all five team teachers worked with the participating students under the leadership of two facilitators, collectively responding to physical tasks (e.g., getting a group of people across a course using tires without anyone touching the ground, helping everyone climb a 20-foot wall). The Ropes Course was suggested by the school counselor and endorsed by the team teachers as an excellent beginning activity. It provided the students with a common positive experience, built group cohesion for the participants, and allowed the researcher to become better acquainted with the students prior to beginning the decision-making program.
During the following six sessions students followed the decision-making curriculum under the supervision of the researcher. The final session included an evaluation of the program by the students. The six 45-minute decision-making sessions held with the students followed the SAVY curriculum developed by Brown and Greenspan (1983) with some modifications made by the researcher. Major topics covered included: School and the World of Work; Decisions We Make; Influences on Decision-Making; Different Types of Decisions; Goal Setting; Decisions and Alternatives; Identifying Important Decisions; Decisions, Alternatives, and Consequences; Problem-Solving Decisions; Problems and Feelings; School Problem Decisions; Peer Problem Decisions; Social Problem Decisions; and Decision-Making for the Future. Individual written assignments, group discussion, and role playing were the key teaching strategies used to convey the material.

Students met with the researcher once a week during two alternating 45-minute time periods. Both periods were during the students' elective courses. The team teachers felt that this would be the least disruptive to regular school progress. Elective teachers were notified in advance which classes the students would be missing for the second nine weeks of the semester and were instructed to contact the school principal if they had any objections. No objections were raised by elective teachers, but two of the students did not want to miss band practice and attended only four of the eight sessions. Reasoned cooperation was seen as an integral component of the program, and
when students presented in advance good rationales for not missing
a particular elective course, they were excused from the decision-
making session. Student attendance averaged six and a half
sessions out of a total of nine.

The outside observer recorded student-teacher and student-
student interactions during sessions one and five. Due to snow
the eighth scheduled session was not held. During her first visit
the outside observer was introduced to the students and her role
was explained. Her presence during the fifth session was also
noted. No apparent change in student behavior was noted
by the researcher attributable to the presence of the outside
observer who did not participate in the group's activities.

Results
Treatment and Control Group Comparisons

The first purpose of the study was to see if participation in
the program would improve at-risk students' attendance, grades,
behavior ratings, and disciplinary actions? Table 2 below
summarizes data collected on these indicators for the treatment
and control groups for the second nine weeks. Also included is a
second at-risk rating for the students based on the second nine
weeks that was calculated in a manner similar to the first at risk
rating with the exclusion of teacher ratings. From Table 2 very
little difference can be seen between the treatment and control
groups. The largest difference is on the second at-risk rating
which is more sensitive to the cumulative minor changes
experienced over the component indicators. What is striking about
the data is that both treatment and control groups did not change
in the level of their at-riskness. Neither the decision-making program nor the regular school program changed the direction of failure for these students.

Insert Table 2 about here.

Effects of Participation on the Students

The second purpose of the study was to investigate how at-risk middle school students reacted to participation in the program. Data from the two session observed, students work, and records of student activity during the program show more positive results than appeared from comparison of treatment and control groups on the outcome measures. The results also demonstrate that the need for expanded resources for at-risk middle school children is great.

Observations

Observations of classroom interactions during the first and fifth sessions showed marked differences in student-teacher and student-student interactions. The initial observations noted distinct inattention from the students. Instances of inappropriate discussions between students while the teacher was leading the discussion, frequent stops in the presentation by the teacher to regain quiet, and lack of student eye contact with the teacher were recorded. On three separate occasions students
asked questions that had already been answered, indicating that they had not attended to the prior discussion. It was not until the discussion in preparation for the Ropes course (a high interest activity) that students seemed to pay more than cursory attention to what was taking place.

The observations made during the fifth session showed distinct changes in student and teacher behavior. Fewer students were present and rather than the traditional rows of tables and chairs arrangement, students were seated in a circle of chairs. Students stayed on task more and were obviously more engaged in the activity. Dialogue among teacher and students characterized the quality of discussion. Students still called out and disruptive behavior was observed, but on this occasion there were far more instances of students listening to what other students and the teacher had to say. Never did the teacher have to stop the flow of the session to restore order.

**Student Work and Activities**

_The Ropes Course._ The Ropes Course was a memorable, positive experience for both the students and the teachers. From both the formal and informal evaluation data collected, the outdoor group problem solving experience was extremely successful. During the course of the day group trust was built. Teachers and students who were initially hesitant found that they could trust others in the group to lead them blindfolded down a forest path. Students who usually lack success in a school situation were valued for qualities that often go unnoticed in an academic setting. The smallest male in the group became the key person, due to his
agility, in managing the group across a series of suspended tires. The final activity, helping the entire group scale a 20-foot wall, saw a blending of group trust and accomplishment that was amazing. By the end of the day, everyone felt good about themselves and the group.

The Decision-Making Course. Participation in the decision-making course was revealing in terms of the students' situational realities. After initial objections to participation in the course (reflex action on the part of the students denying they needed any help), students were able to write down goals for the second nine weeks. To a child they all wanted to do better in school and could all identify the elements central to that success (i.e., do my homework, stop talking out in class, study and get better grades on tests, and pay attention). Where they had extreme difficulty was in reducing these global goals down to manageable sizes that were accomplishable. For example, in the breadth following the statement that they had to act better in school it was not uncommon for an inappropriate noise or a provoking statement to a neighbor to escape. One of the most successful activities in the class was when students contracted for a week to improve one set of behaviors in one particular teacher's class. Verification of the contracts with the teachers showed that students were able to meet these specific short term goals.

During the hypothetical problem solving activities conducted in the course, it became clear that one of the reasons students fail to deter actions with negative consequences is that they lack a repertoire of reasonable alternative actions. The child still
within these at-risk early adolescents has difficulty generating abstract possibilities they have not directly experienced. One student in the group when faced with a hypothetical conflict over television watching with a younger sibling said that his only alternatives were giving in to the sibling or force the sibling to watch his show. When one of the students suggested a compromise, it was obviously something that would never have occurred to him.

Another issue that emerged was identification with and loyalty to the peer group over adult authority. With a hypothetical shoplifting situation and a broken curfew incident, none of the students saw the merit in cooperating with adults. With both exercises, the students generally agreed that it was better to get in trouble themselves than have adult authority take control.

**Student Evaluation of Their Participation.** When asked to respond in writing to the positive and negative aspects of their participation in the course, the most common student response was that there was nothing positive or negative about the experience. When queried in group discussion during the same session as to whether they would choose to continue their participation, all but two children responded positively. Interestingly, the two who did not want to continue participation had received the lowest at-risk rankings in the group and their second nine weeks' grades were above average. The contradictory evidence between written and oral statements is representative of the difficulties experienced while working with this at-risk group.
Conclusions

Although the data did not support that participation in the program improved at-risk students' attendance, grades, behavior ratings, and disciplinary actions, the study did show that it was possible to easily identify at-risk students from existing school records and that at-risk students in both the treatment and control groups remained at-risk. Observational and anecdotal data of students' participation in the program showed that, while not necessarily enough of an effort to demonstrate change on the outcome measures, students did receive benefit sufficient to make them willing to continue their involvement.

Lack of change on the outcome measures can be traced to a number of flaws in the study. The major weakness was probably the limitedness of the treatment. Eight 45-minute sessions over nine weeks was not enough time. Another possible weakness was the small sample size. Individual differences, successes and failures by student, would not necessarily register in the comparison of group averages. Had the sample been increased to two classes the use of average comparisons might have shown some difference. Otherwise with such small samples, provision for the collection of data on an individual case basis needs to be made.

The observational and anecdotal data demonstrate a number of cogent issues about the study and at-risk middle school students. The students in the study are definitely deficient in decision-making skills. They are reluctant to acknowledge problems. Once acknowledged, they are unable to approach the problem in positive, actionable ways. They lack the experience base to
provide viable positive alternatives to problem situations and have come to view adults as other than problem solving assistants.

Messages are often mixed and probably symptomatic of confusion within the students themselves. They are not an easy group to teach. Often their disaffection with school, in part due to their lack of success, makes them appear uncaring and unreachable. Certainly, the clearest message is that what has gone on to date is not the answer. More of the same will not remedy the situation.

In future, this type of decision-making program should be better integrated with the regular academic program. These students do have difficulty with succeeding in school and should have time where they can receive instruction that will assist them with their problem. The value and viability of working with these at-risk children in groups has been demonstrated. At the same time, however, the relationship between the decision-making and academic consequences needs to be more consistent than was possible in this study. Ideally, at-risk middle school students should spend part of each day in a resource classroom designed to optimize their learning and socialization. Some part of the academic program should be taught using individualized instruction while also providing students with strategies to assist with their regular school experience. Their regular teachers need insights into workable teaching strategies with these students and systematic staffing of students between resource and regular teachers would provide this. If at-risk middle school students are to be turned around, the mandate to develop and document successful approaches is compelling.
References


(1986). A study of variation in dropout rates attributable to
effects of high schools. Paper presented at the annual meeting
of the American Educational Research Association, San
Francisco, CA.
Table 1.

**Mean Comparisons for Group Equivalence on At-Risk Rating Scale and Component Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Treatment n=20 (SD)</th>
<th>Control n=20 (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At-Risk Rating</td>
<td>13.3 (5.61)</td>
<td>13.2 (5.69)</td>
</tr>
<tr>
<td>Number of F-Grades</td>
<td>1.5 (0.51)</td>
<td>1.6 (1.05)</td>
</tr>
<tr>
<td>Behavior Ratings</td>
<td>5.8 (0.61)</td>
<td>5.3 (0.56)</td>
</tr>
<tr>
<td>Absences</td>
<td>1.3 (1.63)</td>
<td>2.1 (3.09)</td>
</tr>
<tr>
<td>Team Disciplinary Actions</td>
<td>2.4 (3.39)</td>
<td>1.7 (2.13)</td>
</tr>
<tr>
<td>Teacher 1 Rating</td>
<td>1.7 (0.29)</td>
<td>1.6 (0.32)</td>
</tr>
<tr>
<td>Teacher 2 Rating</td>
<td>2.4 (1.05)</td>
<td>2.1 (1.02)</td>
</tr>
<tr>
<td>Teacher 3 Rating</td>
<td>2.1 (1.49)</td>
<td>2.0 (1.80)</td>
</tr>
<tr>
<td>Teacher 4 Rating</td>
<td>2.7 (1.27)</td>
<td>2.7 (1.35)</td>
</tr>
<tr>
<td>Teacher 5 Rating</td>
<td>2.3 (0.79)</td>
<td>2.3 (1.30)</td>
</tr>
<tr>
<td>Outcome Measure</td>
<td>Treatment</td>
<td>Control</td>
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<tr>
<td>-------------------------------------</td>
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</tr>
<tr>
<td>n=20</td>
<td>(SD)</td>
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<td>Second At-Risk Rating</td>
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</tr>
<tr>
<td>Number of F-Grades</td>
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<tr>
<td>Behavior Ratings</td>
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<td>1.9</td>
</tr>
<tr>
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<td>Team Disciplinary Actions</td>
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