

ED2.2/D84/1972

C.1

COLORADO STATE PUBLICATIONS LIBRARY
ED2.2/D84/1972 local

/Summary report of the Colorado Drug Edu



3 1799 00000 5918

Colorado Drug Education Evaluation Project Summary Report 1970-1971



cde

Colorado Department of Education
Donald D. Woodington, Commissioner

Spring 1972

COLORADO STATE BOARD OF EDUCATION

William I. Israel, Chairman..... (Member-at-Large)	Sterling
Lewis E. Stieghorst, Vice-Chairman..... (Second Congressional District)	Littleton
Alva B. Adams..... (Third Congressional District)	Pueblo
Robin Johnston..... (First Congressional District)	Denver
Allen B. Lamb..... (Fourth Congressional District)	Windsor

Price: \$1.00
No Charge to Colorado Public Schools
ILU 12
May 1972
2500

SUMMARY REPORT
of
THE COLORADO DRUG EDUCATION EVALUATION PROJECT
AS CONDUCTED BY
THE COLORADO DEPARTMENT OF EDUCATION
1970 - 1971

Compiled by
IMPROVED LEARNING UNIT
Frank A. Anderson, Director
Janice R. Schneider, Consultant

COLORADO DEPARTMENT OF EDUCATION
E. Dean Coon
Associate Commissioner

Donald D. Woodington
Commissioner

Denver, Colorado
April, 1972

CONTENTS

	Page
INTRODUCTION	
House Bill No. 1136.....	1
Federal Funding.....	1
COLORADO DRUG EDUCATION EVALUATION PROJECT	
Project Purpose	2
Project Design	2
Project Procedures.....	2
Project Limitations and Restrictions.....	4
Data Used in Project Report.....	5
SUMMARY OF PROJECT RESULTS	
Student Characteristics	5
Knowledge Results.....	6
Attitude Results	7
Drug Education Program Components	9
Financial Expenditures for Drug Education ...	10
CONCLUSIONS AND RECOMMENDATIONS.....	10

INTRODUCTION

House Bill No. 1136

Recognizing the critical need for health education emphasizing problems of alcohol and drug abuse in Colorado schools, the Forty-seventh General Assembly enacted House Bill No. 1136 making an appropriation to the Colorado Department of Education for the fiscal year ending June 30, 1971.

The appropriation totaled one hundred fifty-three thousand five hundred dollars (\$153,500). One hundred forty thousand dollars (\$140,000) of that appropriation was designated as flow-through monies to school districts of the state on the basis of the estimated average daily attendance entitlement of pupils in that current school year, to be used for programs of health education emphasizing alcohol and drug abuse problems. The Department of Education employed one consultant to work with Colorado school districts and with the Interdepartmental Committee on Alcohol and Drugs.

School district leaders, including superintendents, directors of Boards of Cooperative Services, and presidents of local school boards, were notified of the availability of state funds for school district programs by August of 1970.

Districts were requested to submit to the Department of Education a plan for use of funds in alcohol and drug abuse education programs. Submission of such a plan verified a district's intent to participate in the state drug education effort. Upon receipt of that plan, funds were mailed to the districts.

Boards of Cooperative Services coordinated efforts of their participating districts in development of a plan for alcohol and drug education, implementation of that plan, and coordination for dissemination of appropriations.

One hundred thirty-eight of the states' one hundred eighty-one school districts elected to utilize their appropriation before the January, 1971, cut-off date. At that time it was necessary for the balance remaining in the appropriation to revert to the general fund.

Federal Funding

Federal funds were made available to the Department of Education through the Education Professions Development Act as part of the National Drug Education Program. These funds (\$40,000) were used by the Department of Education to enhance the total state effort by providing intensive training for a state team. The state training team then conducted a series of workshops during the fall of 1970 in order to train local task forces composed of educators, students, health professionals, and community leaders from all areas of the state. Reports on the activities of the state team and local task forces were made in January and June, 1971, by the Interdepartmental Committee on Alcohol and Drugs.

Seventy-four school districts participated in the training program. The training workshops reflected the partnership arrangement of the Colorado Drug Education Program combining state and federal resources. Such a partnership was also reflected in that districts utilized their state appropriations from House Bill No. 1136, or other district sources, to provide travel and/or release time for school personnel to participate in the federally-funded training program. These school personnel often assumed the leadership within their districts to plan and implement drug education efforts.

COLORADO DRUG EDUCATION EVALUATION PROJECT

Project Purpose

In order that accountability for House Bill No. 1136 funds be established, the Department of Education developed the evaluation design to make a preliminary investigation of the impact that the state financial resources for drug education had on public school students in Colorado. This report presents the results of that investigation.

Project Design

The evaluation project was designed to produce summative information related to 1) students' knowledge and attitudes about alcohol and drug use; 2) utilization of alcohol and drug education funds by school districts; 3) program components utilized by school districts in conducting alcohol and drug education programs; 4) students' perceptions of and attitudes toward the various program components, whether entirely or in some part funded under House Bill No. 1136.

No premeasures of students' knowledge and attitudes about alcohol and drug use were available. Information collected through this project was to serve as baseline data for future investigations regarding students' knowledge and attitudes about alcohol and drug use. Such information would also provide guidelines for drug education program planning and baseline data for evaluation of the effectiveness of on-going school-related drug education programs.

Project Procedures

The project involved two major activities: 1) the collection of certain information from the central administration in those Colorado school districts that received House Bill No. 1136 funds; 2) the collection of information from a sampling of Colorado public school students in grades three, six, nine, ten, eleven, and twelve.

A. Administrative Reports

The superintendent of each of the one hundred thirty-eight participating school districts received two self-report instruments for use

in providing information about the district's drug education program. When completed, the two instruments provided a general description of how the district expended House Bill No. 1136 funds and which program components were utilized at each grade level as part of their total alcohol and drug education program.

B. Student Reports

The second activity involved collection of data from a sampling of students in Colorado public schools to measure their knowledge and attitudes about alcohol and drug abuse.

Ten school districts through which such data would be collected were identified on the basis of geographic location and population. Districts were divided into four groups: 1) those districts containing an area classified as a suburb of a large city; 2) those districts containing one or more cities with a 1970 population of between 30,000 and 500,000 and not a suburb of a large city; 3) those districts containing one or more cities with a 1970 population of between 10,000 and 29,999 and not a suburb of a large city; and, 4) those districts containing no cities with a 1970 population of at least 10,000, or no area that is classified as a suburb of a large city.

Districts were arbitrarily selected to represent each population group as well as the geographic regions of Colorado.

Each superintendent of schools in the ten districts was personally contacted by the Department of Education to explain the project and acquire permission for district participation in the project. All districts, schools, and students involved in the sample were guaranteed anonymity and therefore are not identified in this report.

The Department of Education randomly selected the elementary, junior high, and senior high schools in the ten districts where data would be collected from students. School administrators were asked to assist in the random designation of students and/or classes to be involved in the project.

Collection of data from students was to be accomplished in two ways. First, approximately one hundred fifty students, equally distributed over grades three, six, and nine were to be individually interviewed.

One week prior to her visit, the interviewer contacted the district to make arrangements to receive a listing of students enrolled in the selected schools. Using a table of random numbers, the interviewer, upon arrival at each school, selected those students to be interviewed.

In some instances school administrators identified the students in order to acquire parental permission for the interviewer to conduct the interview with the student.

The interviewer utilized an interview schedule with twenty-nine items.

Students were asked each question orally, using terminology appropriate to their grade level. These students were not given alternatives from which to select answers. Rather, their verbal responses were noted, then categorized by the interviewer.

The second means for collecting student data involved a written self-report instrument or questionnaire that was to have been completed by approximately two thousand one hundred senior high students.

Instructions for the proctors, information for the school principals regarding administrative procedures to be followed, and the questionnaires were delivered or mailed to the districts' central administrative offices by May 15, 1971.

C. Performance Criteria

A jury, composed of four professional persons working in alcohol and drug education, was engaged by the Colorado Department of Education to establish the criteria or expected performance levels for Colorado students in grades three, six, nine, ten, eleven, and twelve.

Each jury member was provided a list of the knowledge items included in the interview schedule and the student self-report instrument with the preferred or correct response indicated. The jury designated the percentage of students that they would expect to give the preferred or correct response for each knowledge item, at each grade level.

The percentage of students who provided the preferred responses was then compared with the established criteria levels to demonstrate the proportion of items on which students met or exceeded the expectations of the jury.

Project Limitations and Restrictions

Due to the lack of financial resources, it was necessary to generate a research design that would allow for expeditious hand processing and analysis of data. Three volunteer student aides assisted secretaries in tabulating the student self-report instruments.

With a limited number of personnel available to conduct the project, it was necessary to utilize a small sample of districts and students. Though arbitrarily selected, it is not possible to generalize the project results to the entire student population of Colorado, or even to all one hundred thirty-eight districts who received House Bill No. 1136 funds.

Performance criteria as established by the jury of educators in drug education should be considered as best estimates of student knowledge based on their experiences in drug education. Lack of financial resources limited the number of persons involved in the jury and the extent to which additional estimates might have been gathered and

statistically analyzed.

Any form of comparative analysis between school districts or students was virtually impossible because of the innumerable variables that must be taken into account in considering alcohol and drug education programs. Such variables must include but are not limited to, the variety of programs conducted, student responsiveness to programs, and the fact that alcohol and drug education is not exclusively a school program.

Data Used in Project Report

A. Administrative Reports

Self-report instruments were mailed to the one hundred thirty-eight school districts receiving House Bill No. 1136 funds. One hundred thirty-one districts returned the forms to the Department of Education. A small number of these could not be used in compiling the final report. Eight districts returned incomplete administrative reports, indicating that their Board of Cooperative Services would provide the data. However, no report was received from the Board of Cooperative Services.

B. Student Interviews

The project design indicated that a total of one hundred fifty students would be interviewed. Due to the termination of the school year and the unexpected illness of the interviewer, one hundred fourteen interviews in eight districts were completed.

C. Student Reports

A total of two thousand one hundred questionnaires, along with directions for administration and envelopes for return of materials, were delivered or mailed to the ten districts involved in the sampling. One thousand fifty-four completed questionnaires were returned to the Department of Education by twenty-one high schools throughout nine school districts. One school district failed to distribute the questionnaires to students before the school year had ended.

SUMMARY OF PROJECT RESULTS

Student Characteristics

Data was collected from students in grades three, six, and nine through personal interview. The total number of students interviewed provided approximately 7% of the total number of students in the project sample.

Students in grades ten, eleven, and twelve completed written questionnaires. There was a fairly equal representation of students at each of the senior high grade levels. Of the total number of students in the project sample, approximately 30% were tenth graders, 34% were eleventh graders, and 29% were twelfth graders.

Knowledge Results

Students' responses to all knowledge items showed that they were generally less knowledgeable about drugs than the adult jury had predicted. This was particularly true for the sixth and ninth graders; the jury anticipated that 52% of the sixth graders and 72% of the ninth graders would give the preferred responses. Actual student performance showed that only 19% of the sixth graders and 36% of the ninth graders did give preferred responses.

At the third grade level 9% of the students were expected to give preferred responses; 8% of the third graders did actually respond correctly. At the tenth grade level, 54% of the students were expected to give correct responses, while actual performance showed that 47% of the tenth graders did give correct responses; at the eleventh grade level, 60% of the students were expected to give preferred responses but 51% actually gave the correct answers; at the twelfth grade level 63% of the students were expected to give preferred responses while 48% of the twelfth grade students did give correct responses.

Senior high students showed little difference in their levels of general knowledge about drugs. There was an increase in students' knowledge about drugs between grades three to six, grades six to nine, and grades nine to ten.

There were twenty-one knowledge items in the questionnaire for senior high students; on ten of these items an average of 50% or more of the senior high students gave the correct answers. Those ten items and the average percentage of senior high students giving the preferred responses were as follows:

- 1) "Drugs that are more likely than others to cause dream images are hallucinogens." (86%)
- 2) "Hallucinogens are sought because they cause varying illusions and escape from reality." (71%)
- 3) "Physical dependence on drugs is a condition in which the body needs the drug." (64%)
- 4) "Tolerance has developed when the body gets used to the drug." (73%)
- 5) "Misuse of barbiturates is likely to cause broken speech, slowness of thought, poor balance, and drowsiness." (71%)
- 6) "Drugs that stimulate the central nervous system and give a feeling of being pepped up are amphetamines." (50%)
- 7) "The long history and widespread use of marijuana have created confusion about the effects of the drug." (54%)
- 8) "Marijuana does not cause physical dependence." (55%)
- 9) "Some cough medicines can cause drug dependence if misused because they contain codeine." (73%)
- 10) "Abuse of airplane glue, gasoline, and other solvents causes intoxication, confusion, tissue damage, and comas." (56%)

Of the eight knowledge items given to third, sixth, and ninth graders, there was only one item to which an average of 50% or more of the students gave

the preferred response. That item dealt with the results of abuse of volatile substances; an average of 57% of the third, sixth, and ninth graders gave the correct response.

The remaining knowledge items and the average percentage of students giving the preferred responses were as follows:

- 1) "A condition that may be caused by misuse of amphetamines is the need for larger doses." (16% of senior high students)
- 2) "A person who has taken an amphetamine is likely to be talkative and restless." (44% of senior high students)
- 3) "Amphetamines are used medically for the relief of drowsiness and mild depression." (40% of senior high students. An average of 8% of the third, sixth, and ninth graders gave the expected response, "diet pills".)
- 4) "Which of the following drugs causes psychological dependence but not physical dependence?" (The correct response, benzedrine, was given by an average of 15% of the senior high students)
- 5) "A dose of cocaine would most likely cause the body to become stimulated." (45% of senior high students, 4% of third, sixth, and ninth graders)
- 6) "The most common medical use of barbiturates is to produce sleep." (43% of senior high students, 14% of third, sixth, and ninth graders)
- 7) "Barbiturate users are likely to fall asleep easily." (40% of senior high students, 0% of third, sixth, and ninth graders)
- 8) "Continued use of barbiturates over a period of time can cause tolerance, physical dependence, and emotional dependence." (39% of senior high students)
- 9) "The strongest of the following opium drugs is morphine." (10% of senior high students)
- 10) "The effects of heroin will most likely cause a dulling of senses of fear, tension and anxiety." (45% of senior high students, 12% of third, sixth, and ninth graders)
- 11) "The effects of marijuana on the body are closely related to those caused by none of these: stimulant drugs, depressant drugs, hallucinogenic drugs, opiate derivatives." (18% of senior high students)

Attitude Results

Responses to the attitudinal items showed 1) that students are not in total agreement with one another regarding drug-related issues, and, 2) that students in grades nine through twelve appear to have more concerns about drug-related issues than do students in grades three and six.

Senior high students were asked to respond to 24 attitudinal items while the third, sixth, and ninth graders were asked to respond to 15 attitudinal items. Their responses were selected from a continuum or scale of alternatives, including those ranging from "definitely false" to "definitely true," and "strongly disagree" to "strongly agree."

The items and the average percentages of students responses were as follows:

- 1) "There is scientific evidence to indicate that physical dependence can be established with use of marijuana." (Senior high students: 50% "false," 19% "true")
- 2) "Most people who use marijuana will also try heroin." (Senior high students: 45% "false," 37% "true"; ninth graders: 33% "agree," 51% "disagree"; third and sixth graders: 64% "agree," 19% "disagree")
- 3) "LSD is addicting in the sense of producing physical dependence." (Senior high students: 31% "false," 43% "true")
- 4) "Families who have good channels of communication between parents and children are less likely to have drug abuse problems." (Senior high students: 31% "disagree," 60% "agree")
- 5) "Drug abuse by an individual is merely a symptom of a deeper underlying personal problem." (Senior high students: 21% "disagree," 65% "agree")
- 6) "Every community has a potential drug abuse problem." (Senior high students: 12% "disagree," 81% "agree")
- 7) "There are as many causes for drug abuse as there are drug abusers." (Senior high students: 13% "disagree," 69% "agree")
- 8) "It is possible to identify drug users by their physical appearance." (Senior high students: 34% "disagree," 57% "agree"; ninth graders: 49% "disagree," 38% "agree"; third and sixth graders: 16% "disagree," 68% "agree")
- 9) "The mass media have made the use of illegal drugs appear attractive to youth." (Senior high students: 37% "disagree," 41% "agree"; ninth graders: 38% "disagree," 36% "agree"; third and sixth graders: 37% "disagree," 24% "agree")
- 10) "The great majority of drug abusers are youth under age 21." (Senior high students: 29% "disagree," 58% "agree"; ninth graders: 23% "disagree," 54% "agree"; third and sixth graders: 16% "disagree," 59% "agree")
- 11) "Alcoholism is our primary national addiction problem." (Senior high students: 16% "false," 71% "true"; ninth graders: 23% "disagree," 64% "agree"; third and sixth graders: 38% "disagree," 36% "agree")
- 12) "Adults must modify their use of drugs such as tobacco and alcohol before they can expect youth to modify their use of drugs such as marijuana and LSD." (Senior high students: 28% "disagree," 56% "agree")
- 13) "There can be no single successful method of prevention or treatment of drug abuse for all individuals." (Senior high students: 25% "disagree," 62% "agree")
- 14) "The elimination of dangerous drugs from society would only bring about the abuse of other dangerous substances." (Senior high students: 22% "disagree," 59% "agree")
- 15) "One of the best solutions to the drug abuse problem is to crack down on the users by enforcing stiff penalties." (Senior high students: 53% "disagree," 37% "agree")

An average of 83% of the third, sixth, and ninth graders indicated that "in their opinion, there is a drug and alcohol problem". These same students then rated "elimination of drugs" as "the best way to eliminate the drug problem".

Responses to other attitudinal items showed that students think their peers

do use drugs mainly out of curiosity while the main reason for their peers not using drugs is their "fear of the possible harmful physical effects of drugs".

Students rated their doctors and friends as the people best informed about drugs whereas parents and teachers were the people least informed. While senior high students and ninth graders responded they talked to friends most about drugs, to teachers and parents least, the third and sixth graders responded that they talked about drugs most with parents and teachers.

Ninth graders were the group least comfortable in talking to their parents about drugs; however, the ninth graders and the senior high students were pretty much in agreement that students and parents have trouble communicating about drugs because 1) the value systems of the two groups are too different, and, 2) parents are uninformed about drugs and drug-related problems. These same students responded they would seek help with drug problems first, from a drug center, if one were available; secondly, from their friends. Third and sixth graders responded they would seek help first from a doctor, secondly, from their parents. At all grade levels, students responded they would seek help last from teachers.

In their ratings of different experiences pertaining to alcohol and drugs, third, sixth, and ninth graders responded that school-related experiences helped them learn most about drugs; however, the senior high students ranked their school-related experiences and their friends as almost equally important in their understanding of and attitudes toward alcohol and drug use.

Drug Education Program Components

School districts were asked to indicate at which grade levels eight possible program components were utilized during the 1970-71 school year. These components were: audio visual materials, printed materials, former drug users, medical personnel, legal personnel, other visiting resource personnel, teacher presentations, and class discussion. Students were also asked to indicate which of these eight program components they had observed and to then rate the importance of the observed components.

The districts reported they utilized audio-visual materials, printed materials, and class discussion more than any other of the program components. Students' observations of these components coincided with the district's reports. Students ranked most of these observed components as being of "questionable importance"; however, they reported that class discussion and the use of former drug users were "very important" components.

Students were asked to rate the potential value of the eight program components in alcohol and drug education. The component selected by the greatest number of students as having potential value was "former drug users". They selected the component, "teacher presentation" as having the least potential value.

Financial Expenditures for Drug Education

School districts were asked to report expenditures of state funds for drug education during the 1970-71 school year according to eleven general categories. These categories were: audio-visual materials, printed materials, former drug users, medical personnel, legal personnel, other visiting resource speakers, teacher presentations, class discussion, travel, local inservice, and other.

The two categories for which the largest percentage of funds were expended were 1) printed materials, and, 2) audio-visual materials. Twenty-four percent of the total number of dollars (state funds) were spent for printed materials and 16% of the total was spent for audio-visual materials.

Districts reported spending least in the following categories: 1) class discussion, 2) former drug users, and, 3) teacher presentations.

Comparison of Proposed and Actual Drug Education Program Component

School districts presented plans for proposed use of state drug education funds before actual distribution of those funds in the fall of 1970. In comparing districts' proposed plans for utilization of funds with their reports of actual expenditures, it is shown that, 1) more districts spent money in every category, except evaluation, than originally anticipated; 2) while 73% of the districts proposed expending funds for evaluation, only 3% of the districts reported that they did spend funds for evaluation; 3) twenty-two percent of the districts reported that drug education monies were unencumbered by the end of the 1970-71 school year.

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the data received and on the observations of those persons involved in conducting the evaluation project:

1. Students do not have as much factual knowledge about drugs, their use/abuse, as the adult jury employed for this project had anticipated. This may be indicative of a lack of information or the existence of misinformation among students. The adult jury members may well have been too optimistic in their expectations for the students.
2. Students in grades nine through twelve demonstrate more concern for drug issues and have more knowledge about drugs than do third and sixth grade students. This can be related to what is written about adolescent development; the young person is less cautious, more impulsive, more willing to take a chance, and is fascinated by the current drug scene. It follows, then, that youth in this age group will be more informed and more likely to expose themselves to drugs and drug issues. It should also be noted that many schools have concentrated drug education efforts at the junior and senior high levels, than in the elementary grades.

3. Student attitudes toward the drug problem reflect the so-called "generation gap" between students and adults. This is most obvious for the students in grades nine through twelve who reported they do not and would not discuss drug issues with parents and teachers because the value systems of adults and students are too different and because the adults are uninformed about drugs and related problems.
4. Although students definitely want class discussion as part of the educational experience, they reported the class discussions they had experienced were of limited value. This may reflect a difference in teacher and student opinion of what constitutes a "good" discussion and/or that the students were not comfortable in expressing personal attitudes and ideas in the teacher-led discussions.
5. School districts reported they used former drug users the least of all drug education program components. However, the majority of students were in agreement that the former user should be a part of a drug education program. It appears that students find the former user more credible than other experts involved with drug programs. Students want to hear the facts, they want to know what it's really like to use drugs, and they want to hear about it from the person who has actually experienced drugs.
6. Although almost half of the monies spent by school districts for drug education was for audio-visual and printed materials, the evaluation of these components by the senior high students indicated that such materials were not as valuable as they could be. It would appear that "good" audio-visual and printed materials either do not exist or that they are not being utilized by the schools.
7. A high percentage of the third, sixth, and ninth graders gave "I don't know" as a response to the interview questions. The overall results of their responses could be suspect because students may have been somewhat threatened by the individual interview, because these students were not given alternative responses from which to select answers, or they may have lacked appropriate vocabulary. The senior high students were given printed questionnaires that provided them personal anonymity as well as opportunity to possibly guess the correct answers. Therefore, one must be cautious in making comparisons between the responses of those students who were interviewed and those who completed the questionnaire.
8. Since no premeasures of students knowledge and attitudes were available, the project data does not show how effective districts' programs were in transmitting knowledge about drugs or in modifying students' attitudes about the use of drugs.
9. There were major differences in the ways in which school districts proposed to implement their drug education efforts as compared to the ways in which they actually did implement their programs. More districts involved their personnel in some form of teacher inservice

drug education, possibly the result of the state conducted (federally funded) training programs as well as the availability of state monies that the districts could use to support involvement in the above mentioned programs.

The fact that very few districts conducted an evaluation of their drug education program as they had originally planned may indicate that districts did not have the necessary funds, time, or personnel with which to conduct a needs assessment and/or evaluation of their program.

The schools certainly have an important role to play in providing alcohol and drug education, especially in consideration of the fact that the school is a place where children and young people spend a large proportion of their time. The following recommendations are suggested in order that students in Colorado schools may develop and demonstrate positive attitudes and respect for drugs, for the human body, and that they will make intelligent decisions about their own use of alcohol and other drugs.

1. Alcohol and drug education should begin in the elementary grades, if not before. Information about alcohol and other drugs should be factual and accurate, non-judgmental and non-moralistic. Students should be able to, among others, differentiate between use and abuse, develop an understanding of the reasons why people use or abuse alcohol and drugs, and the alternatives to use and abuse of alcohol and other drugs.
2. School programs should be flexible and conducted in ways appropriate to the target audience. A variety of program methods or approaches should be utilized to meet the diversified attitudes and needs of students. Junior and senior high students, especially, should have opportunity to discuss use of alcohol and other drugs with their peers as well as with adults, but with openness and impartiality. School drug education programs should enable the students to discover what is best for themselves.
3. Educational materials (i.e. films, tapes, pamphlets, etc.) should be selected with extreme care, possibly with assistance from students. Schools could invest fewer monies in the commercially prepared materials and utilize student and teacher abilities to develop meaningful instructional aides for use in alcohol and drug education programs.
4. Resource people from outside the school should be used to provide varying points of view on the issue. Former drug users, for example, can facilitate and stimulate learning but they should be carefully selected and provide but one aspect of the educational experience.
5. Effective alcohol and drug education in the schools can be accomplished only if school personnel are cognizant of causes of drug use/abuse, of individual student needs and developmental patterns, and are enabled to meet their responsibilities for dealing with alcohol and drug related issues. The school should

facilitate and organize educational opportunities for their personnel as well as for parents to deal with the issue of alcohol and drug use/abuse. Students should be involved in such programs to provide opportunities for adults and youth to communicate, to confront problems and together discover ways of dealing with the problems.

6. Schools should include evaluation as a necessary component of their alcohol and drug programs in order to know how effective such efforts are. Evaluation should deal with attitudes as well as knowledge, should be continuous and long range, and should provide feedback to the schools for redirection of their efforts.

Evaluative efforts at the state level should provide an overall picture of the prevalence and incidence of alcohol and drug use/abuse among the student population in Colorado, of the levels of student and teacher awareness of alcohol and drug issues in order that districts be assisted to modify their programs as appropriate.

7. With regard to this evaluation project, it is recommended that a similar design be replicated, but utilizing a larger sample of students. The evaluation project should be implemented on a pretest - posttest basis to show modifications and changes that may take place over a period of time, and possible causes for modification and change.

