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ABSTRACT

This report is concerned with drug use and programs at the elementary school level, as well as the secondary school level. Included are discussions of drug education with relation to (1) background considerations, (2) educational techniques, (3) teaching methods, (4) summary descriptions of curricula, (5) judgmental evaluations of curricula, and (6) a review of the evaluation research of drug-related instruction. Also included are results from a survey of elementary and secondary schools, dealing with their perception of problems, their practices, and evaluations of the drug education programs. (Author)

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Table of Contents

Introduction

As indicated in a number of sources, the classical stereotype of the drug user is a person who is a musician, a minority group member, or a mugger. Rarely was the traditional picture drawn to include any significant segment of young people, other than possibly a few athletically inclined individuals whose ethics are marginal. However, a number of survey results show that the classical picture is not the picture of today. All of the studies from which these results were taken deal with the relationship between use of marihuana and age, and are given in more complete detail in Volume I of the Appendix to the First Report of the Commission (National Commission, 1972, p. 283-285). Among these results concerning drug use are the following figures: 25% of current users are under 18 (Gallup, November, December 1971); 40.5% of persons who have ever used marihuana are in the age range 18-24 (Manheimer, et al., 1969); 19.3% of regular users are in the age range 16-18 (Nisbet and Vakil, 1970); 41% of a sample of college 17-year-olds had tried marihuana (Playboy, 1970). Udell and Smith (1969) report that of 800 high school students, (sophomore through senior) 23% had tried marihuana, with 20% of the user group being sophomores. A survey by the California Department of Health and Welfare (1970) indicates a 100% increase in use for both boys and girls between the seventh and eighth grades.

Despite the fact that the data shown above are limited to marihuana use, it is reasonable to suspect that the early use is not limited to marihuana. It is reasonable to surmise, for example, that the family medicine chest is more likely to contain barbiturates and pep pills than

marihuana, and hence the accessibility to these drugs may be even higher for young children. Clearly, to delay the development of knowledge and healthy attitudes toward drug use until adult perspective has formed is to wait too long. The opportunity to engage in drug use exists for children in the early teen-age years; in some cases the use may have serious consequences. Thus, it is apparent that the need to be concerned with drug problems extends into the elementary grade level. If it is reasonable to suppose that important attitudes are being formed when children are young, and if education is to have an effect on drug use, then it is reasonable to attach importance to education about drugs down into the elementary level. A program of drug education at this level is probably desirable even if the school administration is not aware of the existence of an immediate drug problem on the school grounds. The need for such education at the secondary school level is well known.

This report is concerned with drug use and programs at the elementary school level, as well as the secondary school level. Included are discussions of drug education with relation to (1) background considerations, (2) educational techniques, (3) teaching methods, (4) summary descriptions of curricula, (5) judgmental evaluations of curricula, and (6) a review of the evaluation research of drug-related instruction. Also included are results from a survey of elementary and secondary schools, dealing with their perception of problems, their practices, and evaluations of the drug education programs.

Drug Education

Background Considerations

In 1964, the National Institute for Mental Health published a Resource Book for Drug Abuse Education. This section of the present report stems from viewpoints expressed in that publication (Levy, 1964) and (Fineglass, 1964).

1. School drug programs for students must begin in the elementary years when concepts, attitudes, and behavior are developing.

2. The program should examine societal conditions that promote drug use and abuse, i.e., not only drugs per se, but why people use them.

3. The program should include the pharmacological properties as well as the abuse potentials and legal ramifications of drugs. That is, the program should given the facts about drugs and distinguish between drug use, misuse, and abuse.

4. The program at the high school level should emphasize health aspects - psychological and physical - of drugs, which is what these students seem to want, rather than legal or moral implications. The elementary school level is preferable for presentation of the legal implications.

5. Effective drug education should take into consideration that we live in a drug-using society.

6. Some drug use in school stems from disaffection with the educational process. The school, therefore, must try to have every student achieve success in some part of the educational program.

7. In distinguishing between drug use and abuse, abuse may be defined as occurring when use interferes with social, psychological, physical, or academic well-being--recognizing that many substances have abuse potential.

8. The basic deterrents to drug abuse, for the most part, are not directly connected with drugs, but are more related to the alternatives to drug use offered in school, home, and the community.

9. Many young people think that marihuana use is not very different from the use of alcohol, tobacco, or pills. Thus, educational efforts that do not cover the entire spectrum of drugs, including tobacco and alcohol, are considered by students to be adult hypocrisy.

10. Young people can be categorized as (a) those who will not take drugs, or if they try them, can easily be prevented from abusing drugs; (b) experimenters; and (c) abusers.

11. The emphasis in drug education depends on the age of the students and on the nature and extent of drug use in the particular school.

12. An "all school" program with student assemblies while classes stop is more likely to increase rather than to suppress drug use. This approach may cause many teen-agers to feel that they are missing something if they have not tried drugs.

13. Exaggeration, distortion, sensationalism, and moralizing are techniques which destroy the effectiveness of drug education.

14. School policies should support rather than punish, and enlist rather than alienate.

Educational Techniques (Langer, 1970)

In 1970, the Bureau of Narcotics and Dangerous Drugs prepared Guidelines for Drug Abuse Prevention Education for a workshop for educators, and has since made it available on a national level. In addition to material by Levy (1964) and Fineglass (1964), it contains material by Langer (1970) on which this section is based.

1. Scare tactics. This approach must be based on valid information

about the hazards, otherwise it can bring about disrespect, incredibility, and resistance to all teaching about drugs.

2. Pro and con arguments. This approach may serve its intended purpose of providing a logical basis for decisions for older students after judgement has developed.

3. Authorities for source credibility. This approach can be used to convince students of the validity of the message. For example, internists, psychiatrists, and ex-addicts, if they can operate as subject-matter specialists, may be called on for their expert opinions in high school, whereas policemen and clergymen perhaps can be used in elementary school.

4. Student-teachers. This approach depends on the principle that children will learn when rewarded by greater responsibility or status in a current or desired future role, e.g. when acting as student-teachers transmitting drug information to their peers.

5. Organization of concepts in conceptual structure. This traditional approach uses course guides and outlines or scope and sequence formats so that students can achieve a new cognitive understanding about drugs and draw conclusions against drug abuse.

6. Therapy techniques. This approach must be used with caution and only by qualified persons.

Teaching Methods

Two approaches to incorporating drug education into the overall school program are identifiable.

One approach is to make the drug curriculum a major component of a comprehensive health program (Langer, 1970). The drug and health

curriculum is then developed as a basic course. In the development of health concepts, students msut be encouraged to assume personal responsibility for preventing and correcting health problems.

A curriculum which emphasizes basic drug and health information assumes that, once in possession of the necessary facts, students will act intelligently. Unfortunately, schools implementing such drug programs have found that these information-giving methods have not been very effective for the following reasons:

a. students are often knowledgeable about drugs, whereas the teacher may not be familiar with the actual drug abuse scene in the community.

b. The students and teacher often have different value systems.

c. Motivation to apply the facts to daily living is more important than health information.

Another approach is to fit drug education into the regular instructional program of the school with aspects of drug education being taught in appropriate related courses (Michigan Department of Education, 1970). The chemistry and pharmacology of drugs, for example, belong in science, and the psychological and social factors are part of social studies. The integration of drug abuse education with the content of several courses as an entire planned, integrated program, however, is difficult. Careful coordination is required to develop such an integrated instructional program which is meaningful.

Summary Descriptions of Printed Curricula

Curriculum plans for schools contemplating new programs in drug education, or modifications of their existing ones, will probably be put in outline form at an early stage. Some of these are available through

ERIC or from state departments of education. In fact, a large quantity of informative books and tracts are available, though the acquisition of information in this form is ancillary to curriculum planning. A more important step in planning a curriculum is the development of statements of objectives, related content points, and associated activities, articulated by grade. Such development has been done by a number of communities and states, and the results of their efforts have been made available through the sources mentioned above. As an example of the type of material which is available, part of the curriculum guide entitled Drug Abuse Education, A Curriculum Guide, Levels Kindergarten Through Twelve, Clark County School District, Las Vegas, Nevada (1969) appears below. This particular source is chosen because it can be relatively briefly summarized, and because it is organized by grade levels and serves as an example of the materials intended for both primary and secondary school students. The items which are listed under each grade level are component ideas relative to desired objectives of knowledge, attitudes, and behavior. To avoid redundancy, the objectives are not listed here since the component ideas constitute their explication. The objectives themselves are given in the Curriculum Guide along with suggested methodology and suggested multi-media sources. The listing of component ideas from the Curriculum Guide follows.

Grades Kindergarten through Three

Good health is important.

The goal of healthy living is dependent upon the early development of good personal health habits.

The family works together to establish, protect, and maintain good health.

Community helpers aid us in maintaining good health.

Medicine, when properly used, helps maintain good health.

Advertising is used to persuade us to buy a product.

Non-food substances may be harmful to the body.

Non-food substances should be properly stored.

Surplus and old, outdated medicines should be properly disposed of.

It may be dangerous to accept any treat, such as candy or a favor, from a stranger.

Laws are made to protect us.

Grades Four through Six

There is a lack of agreement on the age at which concrete data on drugs can be effectively taught.

Good health and good health habits are the most significant goals an individual can have. Everyone must strive, individually and as a society, to maintain these precious possessions.

Good mental health is dependent upon the adjustments we make in life and not upon external substances taken into the body.

Some people attempt to find enjoyment, or to solve the problems of living, by consuming things which may be harmful to their health.

Man's search for ways to relieve pain and suffering has led to the discovery and development of many chemical combinations known as drugs.

We live in a society which is becoming increasingly drug-oriented.

Grades Four through Six (Continued)

There is a pill or potion for every minor discomfort, stress, pain, and minor illness available at our modern drug stores and advertised in our mass media.

Every substance taken into the body by any means enters in to the complex functioning of the body and affects its condition.

Public concern about the harmful effects of all dependency-producing substances is increasing as scientific data accumulates.

Glue sniffing, or more accurately solvent sniffing, is a dangerous and grossly over-rated method of obtaining a "kick."

No person should ever inhale the fumes of a volatile chemical if it can be avoided.

There are dangerous poisonous plants growing in our community which can be harmful to individuals.

The most common method of classifying drugs is by their effects on the central nervous system, especially the brain. The three principal classification are stimulants, depressants, and hallucinogens.

The drugs known as depressants reduce activity, produce drowsiness, and cause mental dullness.

The drugs known as hallucinogens produce dream-like states of hallucinations.

One attempt to deal with the dependence-producing drugs has been the enactment of more restrictive legislation and stricter enforcement of all related laws.

The ability to refuse the opportunity to experiment with the use or misuse of tobacco, alcohol, or dangerous drugs is a learned behavior.

Rather than using dependence-producing substances to solve the problems of life or to find excitement and thrills, a person should strive to achieve emotional maturity, including how to get along well with others.

Grades Seven through Nine

A basic need of most adolscents is peer group acceptance.

One way peer group acceptance is realized is through experimentation.

Some junior high students are experimenting with marijuana to gain peer group acceptance.

Grades Seven through Nine (Continued)

Marijuana is derived from a plant which is grown in many parts of the world.

In the United States marijuana is ordinarily used in cigarette form.

Marijuana has been recognized for its narcotic properties since 200 A.D.

There is much confusion between authorities on the psychological, pertaining to the mind, and physiological, pertaining to the physical body, dependence of marijuana.

The results of the use of marijuana are basically psychological and sociological.

The use of marijuana has many legal implications.

Some junior high students are experimenting with amphetamines and barbiturates to gain peer group acceptance.

Properly used, many drugs are of great value to mankind. Improperly used, they can damage the individual and interfere with his success in life.

Amphetamines and barbiturates are synthetic chemicals that are marketed legally only on prescription.

There are many social dangers associated with abuse and dangerous drugs.

The ability to refuse the opportunity to experiment with or misuse dangerous drugs.

The production of dangerous drugs has reached astronomical proportions in the United States. Billions of barbiturates and amphetamine capsules and tablets are manufactured every year.

One attempt to deal with dependence-producing drugs has been the enactment of more restrictive legislation and stricter enforcement of all related laws.

Dangerous drugs, particularly barbiturates, are thought by many to be more dangerous than the narcotic drugs.

Barbiturates are central nervous system depressants.

Amphetamine is a central nervous system stimulant best known for its ability to combat fatigue and sleepiness.

Amphetamine users do not develop total dependency, but they may develop psychological dependence upon the drug.

Grades Ten through Twelve

Many secondary school pupils already have considerable information and misinformation about drugs.

LSD (lysergic acid diethylamide), an odorless, colorless, and tasteless drug, is the most potent member of drugs which also includes mimethltryptamine (DMT), peyote, mescaline, and psilacybin. These have the power to bring about radical and often dangerous changes in human behavior.

Researchers have found, even in carefully controlled studies, that the psychological response to LSD cannot be predicted and neither is there consistence in response within an individual.

Because LSD is relatively new, a complete and well-authenticated catalogue of dangers of use and abuse cannot be compiled.

The Federal Drug Abuse Control Amendments of 1965 provide strict penalties for anyone who illegally produces, sells, or disposes of dangerous drugs like LSD.

Limited research is being conducted to discover beneficial uses of LSD. The National Institute of Mental Health has 58 research projects authorized through the Center for Studies of Narcotic and Drug Abuse.

Other hallucinogens equally tempting and dangerous to the adolescent include DMT, Psilocybin psilocin, mescaline, and ibogaine.

The term narcotic refers, generally, to opium and pain-killing drugs made from opium (e.g., heroin, methadone, paragoric, and codeine).

The abuse and possession without prescription of narcotics and dangerous drugs is against the law.

Opium is dark brown or black tarry gum which is obtained from the dried milky juice of the unripe seedpod of the opium poppy. It has a faint odor and a bitter taste.

The opium derivatives are morphine, an odorless, white crystalline substance; codeine; and heroin.

Heroin is the most widely abused narcotic nationally on today's drug scene. The heroin user jeoparidzes his health and is in danger of dying from an overdose.

A heroin user can develop a total drug dependence and become enslaved by the drug. Law enforcement officials attribute the need to secure money to pay for the habit as the reason for theft and prostitution among abusers.

Grades Ten through Twelve (Continued)

Use or possession of heroin in the United States is prohibited except for authorized research.

Percodan (oxycodone), meperidine (demerol), and methadone (dolpnine) are synthetic opiates which have caused increasing concern because of their abuse.

Because of the societal and human costs of drug dependence, rehabilitation is a major concern of universal nature.

All national and international law enforcement agencies are working together to control and eliminate drug abuse. Each of us has a part to play.

In addition to the component ideas given above, an extensive set of ancillary materials is included or referenced as follows:

Bibliography

Books, Authored Pamphlets and Booklets, Annonymous Pamphlets and Booklets, School Syllabuses, Serial Publications, Journal Articles, Films, Recommended Subscriptions, Resource Agencies

Appendices

A Guide to Some Common Drugs Which Are Subject to Abuse

Glossary of Narcotic Slang

Nevada Revised Statutes Regarding Narcotics, Poisons, Dangerous and Hallucinogenic Drugs, and Hypodermics

Clark County School District's Regulations Regarding Harmful Drugs and Alcoholic Beverages

The complete Curriculum Guide covers 219 pages and contains many referenced materials. As mentioned above, it was chosen for presentation chiefly because of its relative brevity and because it was broken out by grade levels, but not because it is particularly better or worse than others. The following brief evaluative comments are therefore not to be construed as differentially critical of the Clark County effort as compared to others.

When examined from the point of view of the background considerations given above, the Curriculum Guide has both strong and weak points. For example, it does respond to age differences as recommended by Levy, though the grade ranges included at each level are broader than some others. Where integration of the material into other courses would be required, this outline might be somewhat less helpful than some other which would give component ideas for each grade. The outline does contain points dealing with pharmacological properties of the drugs but very little on the subjective effects, or on health aspects.

The Curriculum Guide differs explicitly from Levy's background considerations in two additional ways. One is that it does not include material about alcohol or tobacco. The inclusion of material on these topics is viewed as essential as both of these substances are favorites of the older generations who may be viewed as playing down their own foibles, while criticising those of todays' students. The other aspect is that the approach is basically punitive rather than supportive. That is, there is a decided emphasis on laws and punishments in a number of the component ideas and a substantial portion of the Appendices deal with laws and regulations. What is needed is more material about how to live comfortably and harmoniously in the students' immediate realities.

Finally, the fourth point in the list for grades ten through twelve (see p. 11) is an example of a tendency for distortion which can be observed in many drug education writings. The statement under discussion is as follows, "Because LSD is relatively new, a complete and well-authenticated catalogue of dangers of use and abuse cannot be compiled." It could as accurately have been said that "Because LSD is relatively new, a complete

and well-authenticated catalogue of benefits of use cannot be compiled." The propagandistic nature of either statement is apparent, and the authors could just as well have said "The effects of LSD are not well documented yet because it is relatively new." The latter statement makes the main point just as well, that the quality of experience of a trip on LSD is unpredictable at the present time. In the list, the third component idea covers this point nicely and would have been sufficient. The authors have, however, avoided the unfounded implication of probable genetic damage associated with LSD to which some authors are prone.

The Curriculum Guide given above differs from others in a variety of ways. One of these is that the emphasis on physiological background and other scientific information is greatly reduced. Such material receives strong play in some of the other guides (Aafedt, D., et al., 1971; Los Angeles City Schools, 1970; Murphy, H. M., 1970b, 1970c; Spragg, E., et al., 1971a, 1971b) and is coordinated with grade levels in the typical format of a health-oriented outline. Also, as compared to some other guides, the Nevada Curriculum Guide reduces emphasis on pathological outcomes where such outcomes are physical. Other outlines (Aafedt, D., et al., 1971; Burcat, W., 1969; Dade County Public Schools, 1970b; Dallas Independent School District, 1970; Los Angeles City Schools, 1970; Spragg, E., et al., 1971a, 1971b) place more emphasis on the brain damage associated with inhaling volatile solvents; where smoking is the topic, cancer and heart problems get much attention (Aafedt, D., et al., 1971; Dade County Public Schools, 1970c; Fodor, J. T., et al., 1970; Murphy, H. M., 1970c; Spragg, E., et al., 1971a, 1971b); where LSD is the topic, possible genetic damage is often at least mentioned (Fodor, J. T., et al., 1970; Aafedt, D., et al., 1971; Spragg, E., et al., 1971a, 1971b).

Another respect in which the Nevada outline differs from others is in its reference to the advertising of industrial interests. In the material on smoking particularly, the sharp differentiation between the motive of selling and the motive of personal health is drawn (Clark County School District, 1969; Aafedt, D., et al., 1971). Perhaps the problem of conflict of personal interest with the interest of the related industry is not yet an issue outside of the fields of tobacco and alcohol.

The practices in some of these courses as outlined vary according to whether the information to be presented is given in a separate drug-related instructional program, (New York State Education Department, 1970; Anastas, R., et al., 1970; Carlisle Area School District, 1970; Dade County Public Schools, 1970a, 1970b; Chapel Hill City Schools, 1970; Montgomery County Public Schools, 1970; Aafedt, D., et al., 1971) or whether the material is integrated into other courses (Laredo Independent School District, 1970; Washington Office of the State Superintendent of Public Instruction, 1966; Washington Office of the State Superintendent of Public Instruction, 1969; Texas Education Agency, 1970; National Clearinghouse for Drug Abuse Information, 1970). Some of the curriculum authors indicated that integration into other curricula would be desirable though no outline for doing so was offered (Dade County Public Schools, 1970c; Clark County School District, 1969; Fodor, J. T., et al., 1970; Dallas Independent School District, 1970). Where separate curricula were implied the assumption is made, usually explicitly, that the more student involvement the better. It seems to be well recognized that the lecture does not have the same place

in drug education that it has in mathematics. Student projects, discussions, and debates are greatly encouraged. It is true, however, that most of the curricula supply large quantities of factual material for dissemination.

An important influence on the curriculum is the format of material which serves as a course outline. Usually it is in printed form and reasonably brief. The methods of dissemination that are currently available at this time are, in fact, of this type. One must assume that at least some potential readers may not have access to a film, for example, so that a course must be producible from the course outline whether the film is available or not. Even if available, some consumers of the materials, because of marginal motivation or finances, will be less likely to proceed with the acquisition of additional materials. A first try at a drug education course would seem more likely to materialize to the extent that the original outline is a reasonable point of departure for a course in its own right. For whatever reason, it seems desirable to allow a maximum of the course to be based on the original course outline, supplemented by do-it-yourself materials.

Evaluation of Drug Education Curricula

1. A basic concept in the Conceptual Guidelines for School Health Programs in Pennsylvania is that "through accurate knowledge of drugs and narcotics, their benefits and liabilities, drug abuse shall be avoided" (Pennsylvania Department of Education, 1970). This concept, expressed in different ways, is the pervasive theme of all the drug curricula reviewed.

The basic deterrents to drug use, as previously observed in the section, Background Considerations, are mostly related to alternatives in the school, home, and community. If this is so, teaching about drugs in elementary and high schools is not likely to have the desired effect on drug experimentation and abuse. The drug education curricula reviewed, however, tend to assume that students make rational decisions about drug use. On the contrary, the decision of students to experiment with drugs or to continue their use appears most often to be impulsive.

2. The educational technique most frequently employed in the drug education curricula under review is the organization of concepts through the use of course guides and outlines or of scope and sequence formats. Although the various curricula may be somewhat different qualitatively and quantitatively, as will be discussed later, this educational technique, more than any other, is dependent upon the teacher for its effectiveness. The teacher, in fact, is more important here than the educational technique. A good teacher using a simplistic course guide and outline is likely to achieve better results than a poor teacher with the most appropriate guide and outline for her particular students.

3. The preference of students for help with a drug problem may in part reflect their feelings about the present drug education programs in their schools. High school students have reported a preference for a doctor, immediate family members, friends, and ex-drug user to a teacher or school drug counselor for help with a drug problem.

4. The most telling evaluation of a drug education program would be its effects, both immediate and long-range. Unfortunately, "we are still quite ignorant about the effects of drug abuse education"

(Langer, J. H., 1970). However, non-users, experimenters, and abusers undoubtedly will be affected differently by a school drug problem. A realistic goal for such a program, in any event, is not the complete elimination of drugs, but a reduction in drug abuse, except perhaps for use of marihuana, by a significant number of students.

Evaluation of Drug Education Curricula: Specific Factors and Individual Programs

The evaluation of individual drug education curricula includes the following specific factors: accuracy of information; completeness and clarity of curricula; logical sequence of content; student involvement; and appropriateness of content in respect to age/grade level, educational techniques, and teaching methods.

The information presented in all the curriculum guides reviewed seemed to be accurate though they differed to some extent in completeness and clarity of curricula. The Framework for Health Information in California Public Schools was excellent in this respect (Fodor, J. T., et al., 1970). The organization of concepts through the use of course guides and outlines is the main educational technique in all of the drug curricula reviewed. Many of the curriculum guides, however, also make use of authorities in several different fields for source credibility and, at the high school level, pro and con arguments.

Almost all of the curriculum guides emphasized student involvement through activities such as panel discussions, role playing, and reference work, and seemed to present the content in a logical sequence appropriate for the different age/grade levels. For example, medicines and drugs used by the family and found in the home medicine cabinet were

covered in Kindergarten to Grade 3; and topics such as the abuse of drugs as an individual and community problem, and the treatment and rehabilitation of drug misusers were covered in senior high school (Levy, M. R., 1970, p. 21-68).

Of the two teaching methods discussed, those guides which developed the drug curriculum as a major component of a basic course in comprehensive health education were clearer and were more logically and appropriately presented. One curriculum in attempting to fit drug education into the regular instructional program of the school (the second method), for example, had the following "motivating questions" in elementary school mathematics and civics units: "If 94% of 222 males used marihuana, how many are we talking about?" and "Did the hypodermic needle enhance the drug problem?" (Laredo Independent School District, 1970).

A Review of Evaluative Studies of Drug-Related Instruction

What effect, if any, do drug education programs have on their students? Surprisingly, few systematic attempts to answer this question have been made. This section reviews studies in which attempts have been made to evaluate objectively the effects of instructional programs related to drugs and their use and abuse. The studies reviewed encompassed a limited range of approaches and target groups. Hence, the conclusions which can be drawn are limited. The only generalizations which can be made are summarized as follows:

1. Drug education programs can significantly increase knowledge and information about drugs. In all studies where increments in knowledge served as a criterion, significant gains resulted from drug-related instruction.

2. In some cases, drug-related instruction can change attitudes towards drugs, but these changes are not necessarily related to changes in information or knowledge.

3. The effect of drug education on actual use and abuse of drugs has not really been systematically evaluated. Of the studies reviewed, only two reported any attempts to assess the impact of instruction on use. The first reported an increased use of drugs after instruction, and the second reported decreased use. In both cases, however, the lack of controls and small sample sizes prevented firm conclusions from being reached.

Studies Reporting Success in Changing Attitudes or Behavior

The most comprehensively reported study of a drug education program is that described by Geis (1969). The report details the development, implementation, and evaluation of a special instructional program which was planned and presented with the help of ex-addicts. Perhaps the unique aspect of the program was the use of the ex-addicts as group discussion leaders in the classrooms. The instruction covered approximately a 5-week period and was aimed at increasing knowledge about drug-related topics as well as prevention of use.

Four junior high schools in a predominately Mexican-American community participated in the experiment. Two schools were given the usual drug-related instructional program, and the two remaining schools were given the experimental program.

Tests measuring drug knowledge and related attitudes were administered in both experimental and control schools before and after the drug instruction phase of the regular health education sequence. Experimental school students showed significantly greater gains in knowledge and significantly different changes in attitudes in the direction desired. No firm evidence was reported concerning the impact of the experimental program on drug use.

A second study which reported significant changes in both knowledge and attitudes related to drugs described an evaluation of a one-day program at Temple University (Swisher and Horman, 1968). The program, geared for both faculty and students, consisted of discussions led by a variety of experts working in the area of drug abuse (e.g., psychiatrists, pharmocologists,

law enforcement agents) and included two films on drug abuse. In addition, each participant was given a packet of related literature. In order to assess the effects of the program, a control group was established, and pre- and post-tests of information and attitudes were administered to both groups. Random assignment was not employed, but the control group, which received no instruction, was roughly similar in terms of make-up. Gains in knowledge for the experimental subjects were highly significant. Attitude shifts occurred for experimental subjects in the following three specific areas:

1. Attitudes toward the legalization of marihuana were less favorable;
2. subjects became less likely to view marihuana as producing greater insight;
3. subjects increased in the degree to which they perceived the drug user as alienated.

A pilot study of a high school program which employed "sensitivity training," though not a full-scale evaluative study, is nonetheless worth mentioning because of the uniqueness of the approach used and also because of the program's explicit rejection of the thesis that changes in information about drugs results in changes in usage. The program consisted of group sensitivity training sessions centering around the subject of drug use. Two groups of 12 high school students were observed in the pilot program. Of the ten students who were admitted users in the two groups, four reportedly stopped using drugs, and the remaining six decreased their consumption of drugs (Deardon and Jekel, 1971).

Studies Reporting Failure to Change Attitudes or Behavior

A community team workshop evaluated by Shapiro (1971) was less successful in changing participants' attitudes. The goal of this particular program was to provide comprehensive training for teams consisting of a student, teacher, and community youth worker, so that teams could return to their communities to implement drug education programs. Since no control group was available, results had to be assessed solely on the basis of pre- and post-test differences. Despite significant gains in knowledge for all three types of team members, no changes in attitudes were reported. In addition, a significant increase in student use of drugs was reported. Since there was no control group, it is difficult to assess completely the impact of this program. The findings are not encouraging, however.

Two well-designed and highly similar studies (Swisher, 1971) contrasted each of the following three alternative approaches to teaching about drugs with a standard health unit (as a fourth research group):

1. Group conseling using relationship techniques, in addition to the standard health unit;
2. group counseling using model reinforcement techniques and a role model who has not abused drugs, in addition to the health unit;
3. group counseling techniques using model reinforcement techniques and a role model who is a reformed drug abuser, in addition to the health unit.

The first experiment assigned high school students (9th and 11th graders) randomly to each of the four treatments. Counselors were also randomly

assigned. An attempt was made to control for intelligence by random assignment to treatment within each of the three levels of intelligence. All four approaches resulted in significant gains in knowledge about drugs, though no single approach emerged as best. None of the approaches has any significant impact on attitudes or actual use of drugs.

The second study was carried out in a college setting and was virtually identical to the first in design. Results differed, however, in that, in addition to gains in information using all four approaches, attitudes shifted in a more "liberal" (i.e., pro-drug use) direction. No significant increase in use was reported.

A somewhat different result of the effects of instruction on attitudes was reported by Cobb et al. (1970). An evaluation of a five-day workshop for students and school personnel compared pre- and post-test scores on measures of knowledge and attitudes. The program included "...information about the social, medical, moral and legal implications of drug use." Again significant gains in knowledge were reported (though there was no control group). A questionnaire soliciting opinions or attitudes toward drug-related topics showed shifts towards both extremes of opinions. Strangely, the investigators do not report on the substantive nature of the shifts.

The final study which will be considered was a relatively well-designed evaluation of a short-term program of instruction for parents of teenagers (Thomas et al., 1971). Eighteen families were randomly assigned to a control group, and eighteen to an experimental group. The experimental program consisted of one initial informal meeting at which reading material

was given to the parents, followed up by a more formal lecture and group discussion session. Measures of information, attitudes, and family communication served as criteria. Only on the information measure did the experimental group differ significantly from the control group in terms of pre- and post-test differences. Attitudes and family communications were essentially unaffected.

Discussion

If the primary criterion for judging the value of drug education is increasing knowledge or information, then there is little question that drug education programs can be successful. If, however, the primary goal is seen as changing attitudes or behavior related to drugs, then the value of some types of drug education may be questionable. Certainly, the premise that increased knowledge about drugs leads to anti-use attitudes, which in turn lead to decreased use, has been challenged by the findings.

As stated at the outset, the little research which has been done permits only a few general conclusions to be made. One of the reasons for the lack of evaluative research on drug education programs may be the difficulty in conducting such research. The sensitive nature of the subject matter, combined with the usual problems in conducting evaluative research, can make evaluation of drug education programs an extremely difficult undertaking. A number of problems in conducting such research have emerged.

1. As Brotman and Suffet (1972) point out, much of the relevant behavior is illegal. In some cases students may be reluctant to admit use. In other cases students may either treat the questionnaire lightly and give inaccurate responses or engage in a form of boasting and claim

to have used drugs when in fact they have not. The latter problem has often been countered by including fictitious drug names in questionnaires to catch the "boastful" student.

2. A related problem is that of confidentiality. In most cases researchers either do not identify students or use some complicated system of identification which insures confidentiality. Although this type of approach probably assures more accurate information at the time a particular questionnaire is given, it does create problems in following up students at later points in time.

3. Besides actual use, the typical criteria used in drug education research are knowledge about drugs and attitudes towards drugs. Virtually all investigators have employed some type of paper and pencil inventory, but the content of the inventories may vary from investigator to investigator. Knowledge about drugs, for example, can mean knowing the latest slang expressions for various drugs, knowing the history and chemical composition of drugs, or knowing about the negative consequences of drug abuse. The relative emphasis given to these different categories of information can, however, have a serious effect on the interpretation of a study. A result which showed that knowledge of slang terms for drugs was greater among heavy users would be interpreted quite differently from a result which showed that knowledge of the deleterious effects of drug use was greater for heavy users. Yet both types of information have commonly been subsumed under one score. A similar problem exists with respect to attitudes. Attitudes toward the present legal penalties for drug use should not be equated with attitudes toward actual use, for example.

5. Another more general program with the criteria used in drug education research is the varying quality of the instruments themselves. A number of studies, which were not reviewed have based their evaluations on student opinion as to the adequacy or merits of various aspects of the instruction. The lack of validity and the subjective bias inherent in such instruments makes the data collected virtually meaningless for evaluative purposes. Even seemingly more appropriate instruments may be inadequate, however. In some cases instruments were not pre-tested; in others no attempt was made to assess the reliability of the instruments. Without some indication that a test possesses sufficient reliability, it is impossible to determine whether a low relationship between the test and another variable is caused by lack of a valid relationship, or whether it is occurring because the test lacks sufficient reliability.

6. Methodological problems are another source of difficulty in conducting and interpreting drug education research. Random sampling and random assignment to treatments are always desirable but often difficult to employ especially when participation is voluntary. Despite this, it may be possible in many situations to employ what have been termed quasi-experimental designs (Campbell and Stanley, 1963) which would allow stronger inferences than might otherwise be made.

7. As Brotman and Suffet (1972) point out, measuring the behavioral effects of drug education programs may be extremely difficult not only because of the confidentiality issue but also because of variables beyond the experimenter's control; for example, a sudden reduction of supply of a particular drug in a community. Extraneous events such as this may wash out whatever effects might have been observed.

Conclusions

It has become cliché when writing about a particular topic to say that "not enough research has been done." This is certainly true of evaluative research in drug education. Though most of the research reviewed was well-designed and executed given the constraints and problems that accompany evaluative efforts of this type, each of the studies represents only an isolated attempt to assess a particular program for a particular group. As indicated earlier, the studies encompass only a limited range of approaches and a limited range of target groups. As Richards (1969) points out, some approaches may work better than others with certain groups. A well-planned large scale research effort is needed to determine whether this is true or not, and if so what approaches are best for each group.

Overview of the Survey Results

The return rate for both samples was rather low. Twenty-four percent of the elementary school sample and 36% of the secondary school sample returned usable questionnaires in time for this project. Examination of descriptive data suggest that, except for the absence of religiously affiliated and private schools in the elementary school sample, the two samples were comparable in terms of religious, socioeconomic, and racial composition.

A telephone survey of 50 randomly selected non-respondents suggests a sampling bias in favor of schools having drug education programs of some kind.

Most schools saw drugs either as a minor problem or as no problem at all. Secondary school respondents showed a greater tendency to indicate that drugs are a problem, a fact reflected in the higher reported figures for use and sale of drugs in the secondary schools. Tobacco and alcohol are the most heavily used substances, according to the respondents, with marihuana the next most frequently used substance. The vast majority of elementary schools reported no use of drugs at all (excluding tobacco and alcohol), and only quite rarely did elementary schools report use by more than 10% of the students. In secondary schools, a substantial percentage indicated use by at least a minority of the students of all drugs listed. The most frequently used drug appears to be marihuana followed by amphetamines and barbiturates. The majority of secondary school respondents indicated no use of LSD, cocaine, heroin, or volatile solvents, however.

Most elementary schools saw little change in trend over the past five years for drug use, but where some change was perceived it was more likely to be an increasing one. Secondary school respondents were more likely than elementary schools to see an increasing trend in all drug use except in the case of volatile solvents where a slight decrease was more often indicated.

Where schools had some written drug policy, it was likely to have been adopted within the last three years. Policy, in general, appeared to be written in broad terms, and a good deal of discretinary interpretation of policy seemed to be the rule. The most likely action to be taken when a student was discovered using or in possession of drugs was notification of the school principal. Police were notified in many cases and frequently had access to records related to student drug use.

Respondents indicated that 77% of the elementary and 83% of the secondary schools have, or plan to have, instruction on drug-related topics. Most frequently, the programs had been in existence two or more years, with the secondary school programs being somewhat older. The most frequently cited event leading to the establishment of these programs was the knowledge of increased use by students, increased local drug-related crime, and the influence of nearby schools. Increased rates of drug-related offenses by students also played a role. The impetus for the establishment of these programs came most commonly from the school administration, the staff, and the district, state, or higher organizational levels.

For the academic year 1972-73, there was an increase in the scope of emphasis of the programs for both elementary and secondary schools, as compared to the academic year 1971-72. The most popular topic was the effect

on the user. In secondary schools, more emphasis was placed on federal, state, and local laws, and on the legal consequences of apprehension or conviction, as compared to the elementary schools which emphasized more the care in use of medicine, beneficial effects of drugs, volatile chemicals, and the appropriate evaluation of tobacco advertising. Planned expansion of the programs was far more common than reductions.

The most popular goals of the programs were to increase student knowledge about the physiological and psychological effects of drugs, to change the students attitudes about drugs, and to give students knowledge about the appropriate use of drugs. There was, for the secondary schools, a frequent emphasis on rational decision making. From the students' point of view, as perceived by the respondents, the most common concern was to learn about the physical and psychological effects of drugs and their relative harmfulness. In the secondary schools, the students are believed to have become more concerned with how to help a friend with a drug problem, and the legal consequences of conviction.

The most frequently used approaches to drug education were audio-visual presentations, discussion sessions, and lectures by a law enforcement officer. Instructor workshops had some popularity. In-service training to instructors is given, in part by the local district, and not required. Materials for the students' courses are available from a variety of sources, with about half of the schools using materials from a state agency. The use of materials prepared by the local district was more common for the elementary schools, but all other sources were more common for the secondary schools.

The person frequently charged with drug-related instruction was the homeroom teacher and the health teacher in the elementary schools; in the secondary schools the persons frequently charged with drug-related instruction were the health teachers, the science teachers, the physical education teachers, and the social studies teacher. The most common method of imparting drug-related material was as an integrated part of other courses; the use of separate drug education courses was relatively infrequent.

When asked about evaluations of their drug programs, about half of the respondents either did not respond or indicated that no evaluations were carried out. About 40% of the elementary schools indicated that evaluation had been conducted by in-house personnel, as did 48% of the secondary schools. No other agency of evaluation had been used for as many as 10% of the schools, though future plans indicated that 10% to 15% would have evaluations by a group from the community at large, or by a special committee of students. For those evaluations which had been carried out, the techniques were mixed, with no strong method predominating. Encouragement can be taken from the fact that about 10% of the schools used random assignment of students to instructional programs, a procedure which is necessary for proper evaluation and which is not used in other areas of educational evaluation.

For those evaluations which did occur, about a quarter of the schools received no knowledge of results as they should have. However, about two-thirds of the respondents believed that their programs were adequate. About a fourth of the schools thought that reviews should be held once a year, and slightly more than two-thirds indicated either that no formal review was contemplated or that no regular schedule of reviews was anticipated.

Reactions of various community groups to the drug programs of the schools was almost never "disapproval" or "strong disapproval." As a general trend, about 25% to 35% of the schools indicated that feedback from community groups indicated indifference or was not received, and the balance was "favorable" or "strongly favorable."

A Survey of Drug-Related Programs and Policies in Elementary and Secondary Schools

Introduction

The purpose of this survey was to provide information for the Commission concerning drug-related instruction, programs, policies and problems in elementary and secondary schools. The questionnaire used for the survey is appended to this report, but its content may be briefly described as covering the following five basic areas:

1. School descriptive information
2. Estimates of drug abuse within the school
3. Punitive and other administrative policies with respect to drugs
4. Extent and content of drug related instruction
5. Extent and nature of evaluative efforts related to drug instruction

Samples

Two separate national probability samples were taken for the present survey. The first sample was taken from a basic sampling list consisting of all schools having enrollments in grades 2, 4, or 6 and appearing on the 1970-71 School Universe Tape. The following stratification variables were used:

1. Census region
2. Degree of urbanization
   a. Large city (over 500,000)
   b. Moderately large city (200,000 to 500,000)
   c. Suburb of a large or moderately large city
   d. Middle-size city (50,000 to 200,000)
   e. Suburb of a middle-size city
   f. Small city or town (less than 50,000)
   g. Rural area near a large city
   h. Rural area near a middle-size city
   i. Rural area not near a large or middle-size city
   j. Unknown
3. School size (total enrollment in grades 2, 4, and 6)
   a. Under 50
   b. 50 to 99
   c. 100 to 199
   d. 200 to 499
   e. 500 or greater
4. Percent minority enrollment
   a. Less than 5 percent
   b. 5 to 9.9 percent
   c. 10 to 19.9 percent
   d. 20 to 39.9 percent
   e. 40 to 59.9 percent
   f. 60 to 79.9 percent
   g. 80 percent and over

5. County median income (1960 census)

   a. Less than $2,000

   b. $2,000 to $2,999

   c. $3,000 to $3,999

   d. $4,000 to $4,999

   e. $5,000 to $5,999

   f. $6,000 to $6,999

   g. $7,000 to $7,999

   h. $8,000 to $8,999

   i. $9,000 to $9,999

   j. $10,000 and over

A total of 1,436 elementary schools was sampled for purposes of the survey.

A second sample was drawn using as a sampling frame the Preliminary Scholastic Aptitude Test (PSAT) mailing list. The PSAT list is a reasonably complete list of the United States secondary school universe. Only one variable, census geographic region, was used to form strata. A total of 1,000 secondary schools was drawn for survey purposes.

Mailing and Follow-up Mailing

The questionnaires were mailed to the 1436 elementary schools in mid-September. The initial secondary school mailing took plate during the second week of October. Follow-up questionnaires for both samples were mailed to all non-respondents approximately three weeks after the initial mailings. As a final step, telephone contacts were attempted with a small random sample of non-respondents within each sample. The telephone interviews were done in mid-November and were an attempt to determine some of the reasons

for the low return rate, as well as possible sources of bias. The interviews were very brief and covered the following questions:

1. Did the school receive the questionnaire?
2. What was the reason for not responding?
3. Is instruction related to drugs provided for in separate courses at the school?
4. If drug education is not treated in a separate course, is it treated as a topic within any subject as part of the regular curriculum? If so, what subjects include treatment of drug related topics?
5. What individuals have responsibility for instruction related to drugs?

Returns

The results reported in this study are based on the responses of 342 (24% of those sampled) elementary schools and 363 secondary schools (36% of those sampled). The general descriptive data for respondents are shown in Tables 1 through 8. The elementary school sample, since it was drawn from a sampling frame of public schools, contained no private or religiously affiliated institutions. The secondary school sample, however, contained non-public institutions with the largest percentage indicating affiliation with the Catholic religion (see Table 1).

The data on percentages of students in various grade levels (Table 2) show that some schools in both samples served a range of grade levels beyond that indicated by the designation "elementary" or "secondary," though predominant frequency of grades is in agreement with these designations. In terms of religious, socioeconomic, and racial composition, the two samples appear roughly comparable to each other (see Tables 3, 4, and 5). The slightly higher percentages of Catholic schools in the secondary school sample (as well as the lower figure for Protestant schools) shown in Table 3 can probably be attributed to the exclusion of religiously affiliated schools from the elementary school sample. Data on per pupil expenditures shown in Table 6 indicate a tendency for the secondary schools to report slightly higher figures. The percentages of students entering post-secondary education are shown in Table 7 for the secondary school sample and indicate that for the great majority of schools a substantial proportion of students go on to some form of post-secondary education.

Table 8 shows figures for housing arrangements of students, and, as might be expected, only a small percentage of secondary schools reported

anything other than the usual family home for the majority of their students. With respect to drug education, 23% of the elementary schools and 17% of the secondary schools reported no drug education programs whatsoever. As Table 9 shows, most schools reported spending relatively little money specifically on drug education.

Non-Respondents

Because of the low response rate, it was decided to attempt to contact a random sample of non-respondents in an effort to determine some of the reasons why schools did not respond, and also to get some rough idea of the extent of drug education programs for non-responding schools. Accordingly, a random sample of 50 non-responding schools (30 from the elementary school list and 20 from the secondary school list) was drawn (see appendix for outline of telephone survey). Of these, 45 were successfully contacted. Despite the two mailings, eleven schools claimed never to have received the questionnaire. Two schools offered plausible explanations for not having received the questionnaire, and the rest constitute 20% of those contacted. No plausible explanation for this disturbingly high percentage can be given.

Of the remaining schools contacted, 5 said they were uncertain as to whether the questionnaire had been received, 10 said they had completed or were in the process of completing the questions and would send them back soon. An additional 7 said they would fill out the questionnaire when they had the time. The remaining 12 schools contacted said they did not intend to complete the questionnaire for a variety of reasons. Eighteen non-respondents stated that they had no drug education program. This represents 40% of those contacted and is substantially higher than the percentages of respondents (23% for elementary and 17% for secondary) who report no drug education. Furthermore, this figure jumps to 62% if the telephone contacts for which no clear determination could be made concerning drug education are eliminated (no determination could be made in 16 cases). Although the

number of people contacted is not large, the replies suggest a marked sampling bias in favor of schools having drug education programs. Furthermore, information on some of the remaining items was rather sketchily obtained, but supports results given later that of those schools giving some drug education within the regular curriculum most stated that health and general science classes treated drugs as a topic,

Results Pertaining to the Use and Sale of Drugs Within the Schools

Most schools apparently see drugs either as a minor problem or as no problem at all. This is particularly true of elementary schools where 65% of those responding reported no problem with drugs. Table 10 summarizes the respondents' opinions and shows that, in general, drugs are perceived as a more severe problem in the secondary schools. However, very few schools in either sample indicated that drugs were the most important problem in their school.

The data on estimated use for elementary schools are supportive of the notion that for most schools drugs are a minor problem. As Table 11 shows, the great majority of schools reported no use whatsoever of the substances listed, except for tobacco. The use of "hard" drugs, such as cocaine and heroin, appeared to be almost non-existent in these schools. As might be expected, the student selling drugs at the elementary school level was a relatively rare case. Only 8% of the schools reported any sale of marihuana by their students, and the figures for the other substances were even lower.

In the secondary schools, where there was a greater tendency to see drugs as a problem, estimates of use and sale were higher for all categories (see Table 12). Tobacco was reported as the most heavily used substance, followed by alcohol as the next most heavily used substance. Of the remaining substances, marihuana was most often estimated as being used by more than 10% of the students. More than half of the secondary schools reported some use of marihuana, amphetamines, and barbiturates, and less than half reported some use of LSD, cocaine, heroin, and volatile solvents. A majority of schools reported no selling of drugs at all.

The percentage of schools reporting some selling of drugs is certainly not inconsequential, however. Forty percent reported some selling by students of marihuana which was apparently estimated to be the most frequently sold drug, followed by amphetamines (32%), barbiturates (30%), and LSD (20%). Some selling of cocaine and of heroin was reported by 9% of the schools.

It should be emphasized that most of the estimates of use were made subjectively. As Table 13 shows, only a small percentage in each sample was based on anything other than opinion. It is interesting to note that, though estimates of disciplinary action for use or sale of the various substances (see Table 14 and 15) are lower, the patterns are quite similar to those observed for estimates of use. The number of students disciplined for use of drugs in a school would certainly be one major source affecting the estimates of use and sale, and it is reasonable to assume that the number of users would exceed the number of students disciplined for use. In any case, this may have been how many respondents made their estimates.

Besides estimates of current use and sale of drugs, respondents were asked to describe the trend in student drug use for the last five years. These results are reported in Table 16. Elementary school respondents, in general, saw little change in trend over the past five years. Of those reporting change, however, more saw an increasing trend. Secondary school respondents were more likely to see changes over the past five years. Increased use of marihuana was the most frequently perceived trend (61%), followed by alcohol (50%), amphetamines (44%), and barbiturates (43%).

Interestingly, slightly more respondents (22%) perceived decreases in the use of volatile solvents than increases (18%). LSD, cocaine, and heroin were somewhat more likely to be seen as increasing in use, though most secondary schools saw little or no change in the use of these substances.

School Policy and Practices Related to Drugs

The survey instrument contained a number of questions regarding the drug-related policies and administrative practices of schools. Over one-third of the secondary schools reported having no written policy at all. Of those having a written policy, most have adopted their policy relatively recently and have also made recent revisions. Sixty-two percent reported revisions within the last year, and 29% revised their policies within the last three years. The percentage data on policy revision are identical for secondary and elementary schools and are presented in Table 17 along with the data for policy adoption.

Leadership in the formulation of school drug policy had apparently been most frequently exerted by local school districts. There was also a tendency for school principals and faculty to have played a greater leadership role in drug policy formulation in secondary schools than in elementary schools (see Table 18). The participation of students in setting and implementing drug policy was more likely to occur in secondary schools. Students most often participated in committees with faculty and were also likely to serve in advisory capacities in drug policy formulation and implementation (see Table 19).

Tobacco and alcohol were the substances most likely to be covered by written policy in both elementary and secondary schools. The percentages for coverage of drugs are somewhat less than for the coverage for tobacco and alcohol but highly similar across the various substances listed, suggesting that policies either cover tobacco and alcohol only, or cover alcohol and tobacco plus all of the substances listed (see Table 20). The lower percentages for all substances in elementary schools are consistent with the lower rate of reported written policy for elementary schools.

Table 21 reports further results for aspects of policy coverage. The results with respect to specific substances differ from the results of Table 20 probably because of differences in the phrasing of the questions on which these two tables are based. One question (Table 20) asked whether written policy coverage extended to the various substances either explicitly or implicity, whereas the other question simply asked whether written policy included the various substances. As might be expected, percentages for coverage of various substances are higher in Table 20, but the patterns are quite similar except for the relatively lower coverage of alcohol and tobacco in elementary schools.

One-tenth, or less, of the elementary and secondary schools reported written policy which distinguished between the sale and casual transfer of drugs, possession and sale, and possession and use of various drugs. This suggests that written policy tends to be set forth in general terms for the most part, and that where distinctions exist they are more likely to be effective than written.

Written policy is only about one-half as likely to cover school employees as it is students. The percentages for policy coverage of elementary school employees are about the same as those for high schools. The frequency of coverage for students is somewhat less in elementary schools, however.

As Tables 22 and 23 show, most schools tended to allow either complete discretion or discretion within established guidelines in handling individual drug cases. The most likely action to occur where a teacher did encounter a student in possession of drugs was to refer the student to the school principal (see Tables 24 and 25). In elementary schools, the

second most likely action was to notify parents regardless of the type of drug. In secondary schools, this action holds for tobacco and alcohol, whereas for other substances the police were notified almost as frequently as parents. Referring students to a guidance counselor appeared to be the least likely action for drug cases at both the elementary and secondary levels. The salient characteristic of the data shown in Table 26 is that roughly three-fourths of responding schools require that an incident of using or selling drugs must be reported to the school principal.

The most common disciplinary measures taken by schools for drug-related cases were warnings and suspension, which, for the most part, occurred for only a few of the students within any given school. As the data in Table 27 indicate, elementary schools rarely disciplined students for drug-related incidents. This is consistent with the figures discussed earlier which indicate that drugs are only a minor problem or no problem at all in the elementary schools. The most severe form of punishment listed, expulsion, was reported by 21% of the secondary schools and 4% of the elementary schools, but in neither sample was expulsion reported for more than 10 students.

Other categories of penalties include prohibiting participation in certain school activities. Representing the school in athletic or other events was by far the most frequently reported activity from which drug users are excluded. The fact that 80% of the elementary school sample and 53% of the secondary school sample gave no response to this question suggests that many schools have no specific policy on exclusion of drug users from activities (see Table 28).

The question of access of school administrative officials and outside agencies to information concerning student drug use was posed. Only 5% of the elementary and 1% of the secondary schools reported that access to such information would never be permitted to school officials (see Table 29). Table 30 shows data indicating that the local police were more likely than any other outside agency to have access to information concerning student drug use. The second most likely outside agencies to have access were other elementary and secondary schools.

In elementary schools, a student indicating curiosity about drug-related matters apparently is most likely to be sent to the school principal. In secondary schools, however, the most likely action is to send the student to a guidance counselor (see Table 31). The data in Table 31 may be compared with the data in Table 32 which lists the sources students might be likely to seek out informally. In elementary schools, any instructor, other students, and the guidance counselor were most frequently checked; in the secondary schools, guidance counselors and other students were the most likely informal sources.

The most frequently given reason for choosing the person to whom a student is sent was for information on drug-related matters that the individual is knowledgeable on drug-related matters. The next most popular reasons would appear to involve the individual's ability to relate to students, since being well liked by students and being a good counselor were frequently given responses (see Table 33).

Results Concerning Instructional Practices

Respondents to the questionnaire were asked to indicate if they did not have and did not plan to have drug-related instruction. Of the 342 responding elementary schools, 78 (23%) made such indication, and of the 363 secondary schools, 61 (17%) revealed no present or future plans. Thus, 77% of the elementary and 83% of the secondary schools have, or plan to have, instruction on drug-related topics. The drug education courses given by the respondents have been in existence for varying periods of time, as indicated in Table 34. The largest percentages are associated with programs in existence for two, three, and more than five years. Not surprisingly, the secondary school programs seem to have been in existence for the longest period of time.

The relative frequencies of incidents leading to the establishment of these programs are given in Table 35, for both elementary and secondary schools. In secondary schools, the impetus for the establishment of these programs seemed to have come from a knowledge of increased rates of drug-related offenses and increased use by students. In the elementary schools, increased use of drugs by students played a role, but increased drug-related offenses did not. For both elementary and secondary schools, increased local drug-related crime and the influence of nearby schools played a part.

The relative frequencies with which groups or persons in various roles influenced the establishment of drug-related programs are given in Table 36. Perhaps a slightly greater tendency for parents to play a role was indicated for elementary schools, in contrast to greater student influence

in secondary schools. In both cases the school administration, the staff, and the district, state, or higher organizational levels were the major instigators.

A wide variety of practices with respect to drug-related instruction existed among the respondents who indicated that such instruction occurred. Such variation is to be expected since it is not presently clear that there is a "best" form of drug educational practice. One aspect of interest is the frequency with which various topics received emphasis during 1971-72 and during the present academic year. Table 37 presents results on emphasis for elementary schools, and indicates that, for both the last academic year and the present one, the topic most often receiving emphasis was that of the physical and psychological effects of drugs on the user; the relatively low frequency of emphasis on topics other than these listed may indicate that the list covered the topics presented. By comparing the first and second data columns in Table 37, it can be seen that in no case did the number of schools emphasizing any topic decrease. The greatest increase in the number of schools occurred in the emphasis on the social and economic consequences to the individual.

Table 38 contains results concerning the emphasis on topics in the responding secondary schools. As in the elementary schools, the most popular topic was the effects on the user, and a very low frequency of topics other than those listed in the table was found. Two topics declined slightly in popularity: federal, state, and local drug laws, and the legal consequences of apprehension on conviction for drug law violations.

Examination of Tables 37 and 38 shows that the relative order of the frequencies of emphasis was virtually identical for the two academic years,

but that the order of the frequencies differed somewhat from elementary to secondary schools: the major increase in the secondary schools was on federal, state, and local laws, and on the legal consequences of apprehension on conviction for drug law violations; the major decreases were on care in use of medicine, beneficial effects of drugs, volatile chemicals, and tobacco advertising.

Data on plans for the 1972-73 academic year are presented in Table 39 and agree with those in Tables 37 and 38 in part, in that an expansion of programs was indicated far more often than any reductions. This trend holds for both elementary and secondary schools.

Tables 40 and 41 give results on the goals of the drug education programs. In both of these tables, the most cited purposes were to increase student knowledge about the physiological and psychological effects of drugs, to change the student's attitudes about drugs, to help the students make rational choices about drugs. The relative importance of the various purposes is quite similar, but the secondary school data, Table 41, shows a relatively stronger emphasis on rational decision. Perhaps this emphasis accounts for the increased emphasis, from elementary to secondary, on laws and legal consequences. Clearly the purposes are more closely related to the influencing of behavior than they are to imparting a part of the common culture.

In addition to the goals of the programs, the respondents indicated the drug-related problems which they thought were of concern to the students. These results are presented in Tables 42 and 43 for the elementary and secondary schools, respectively. In the elementary schools, the most common problems were the relative harmfulness of drugs and the physical and

psychological effects. Of least concern were the securing of legal assistance, the effects of mixing drugs, and the laws related to drugs. In the secondary schools, it can be seen that the problem of how to help a friend with a drug problem became more common. In Table 43 the emphasis on laws related to drugs was more commonly rated as being of some concern than it is in Table 42, as might be expected from the increased emphasis on drug-related law in the secondary schools. Of greater concern in secondary schools were the legal consequences of convictions.

The variety of approaches to drug education used in both the elementary and secondary schools is indicated by the data presented in Tables 44 and 45. The relative frequencies of the various approaches were quite similar at both school levels and for both academic years. The techniques most used were audio-visual presentation, discussion sessions, and a lecture by a law enforcement officer. After these three approaches, the use of instructor workshops was popular though a good deal less so than the others. The small frequency indicating that other approaches were used indicates that most of the techniques were covered by the list.

Tables 44 and 45 indicate some interest in instructor workshops, and data in Table 46 relate to other practices in instructor presentation. This table indicates that in-service training was given, in part by the local district, and not required. Materials for student instruction were available to the instructors from a variety of sources as indicated in Table 47. Private sources were used to a relatively larger extent for secondary than for elementary schools, though the data do not indicate the precise nature of these sources.

All of the preceeding information was obtained for the schools as a whole. However, some data have been broken down by grade; such information

will first be given for the secondary schools. Table 48 gives frequencies and percentages by position and by grade level, and the number and percentage of instructors charged with drug-related instruction for each position. For example, the upper right hand entry in Table 48 indicates that 156 physical education instructors had responsibility for classroom instruction in drug-related courses, and the 1st row of the 12th grade column indicates that 71% of these 156 (or 110 physical education instructors) gave such instruction to the 12th grade. Examination of the right hand column of Table 48 shows that for these secondary schools the health teacher, followed by the science teacher, the physical education teacher, and the social studies teacher in that order, had the responsibility for drug-related instruction.

The secondary schools, with which Table 48 deals, were not restricted exclusively to the secondary grades as can be seen in the table. However, since the schools were drawn from a sampling frame for secondary schools, the highest frequencies and highest percentages occur in those sampling grades. Similarly, in the tables for elementary schools (Table 52 through 55) the larger percentages will occur at the low grades. Thus, the meaningful comparisons should be restricted to lines within each type of school. Of these lines, the last two in Table 48 are based on two and eight cases, and the percentages on these lines are not reliable. Examination of other lines in Table 48 shows that the school nurse, principal, and homeroom teacher were involved early and continuously, though the involvement of the homeroom teacher diminished in the upper grades. Among all personnel listed, the most striking increase in involvement was that of the guidance

counselor. That is, while not as many schools involved the guidance counselor as other school personnel, virtually all (97%) of the guidance counselors received responsibility for drug education in the 10th, 11th, and 12th grades.

Data showing the inclusion of drug-related topics into various courses, by grade, are given in Table 49. As one might expect, these topics were most frequently included in health and in biology courses, followed by social studies. In addition, such instruction was included in connection with health courses throughout all the grades.

Drug-related instruction need not, of course, be given only as part of a course, as indicated in Table 50. Respondents indicated that a separate drug education course was not the preferred method of achieving such education, but that the integration of drug-related material into other topics was the preferred method from kindergarten on. That trend continues in 1972-73 as can be seen in Table 51. While drug-related instruction will be given in 267 secondary schools, it will be given as a separate course in only 57 schools, and the relative frequency of use of separate courses holds at all grade levels.

Data similar to the foregoing for the secondary schools are given for the elementary schools in Table 52, and the higher frequencies and percentages appear among the lower grades. This table also indicates that the separate course was not the preferred method of instruction at any grade level, again reflecting the fact that integration of drug-related materials with other topics was the preferred instructional approach at all grade levels.

Table 54 gives data on the frequencies and percentages of elementary schools in which drug-related instruction is given as a part of various courses by grades. As with the secondary schools, health was the course which most frequently included drug-related material. In contrast, physical education played a less important role at the elementary level, and the social studies course played a more important role. Note that the pattern involvement of psychology, biology, and chemistry was far more concentrated in the higher grades as in the secondary school sample. This tendency was strong enough to override the far greater frequency of courses at the lower levels.

The data indicating the frequencies and percentages of various individuals who have responsibility for drug education are given in Table 55. Those most often responsible were the homeroom teacher and the health teacher. The role of the principal was less than the secondary school teacher, as was that of the physical education teacher. Since these schools primarily include grades K-6, it can be assumed that the increase in frequencies and percentages from grades kindergarten to six indicates a increasing tendency to give drug-related instruction as the child matures.

Results Concerning Evaluations

The respondents to the questionnaires indicated by far the most evaluative steps have been and would be taken by the principals or teachers of the schools involved. Table 56 shows that about half the schools, both elementary and secondary, had no evaluation or did not respond. About 40% of the elementary schools and about 46% of the secondary schools had had some evaluation by in-school personnel; other agencies participated in evaluations at only a few places. Respondents were asked to indicate which of a number of important features applied to possible evaluations of their drug education programs. Their responses are given in Table 57. The percentages in Table 58 refer to those who indicated that any characteristic applied to their evaluations; i.e., it includes all the schools which responded other than "none." Examination of Table 57 indicates that, with the exception of personality tests and random assignment, many of the techniques were used fairly frequently. However, there is no tendency for a few characteristics to stand out over the others such as might occur if there were a generally agreed upon procedure for evaluating drug education programs. Of particular interest is the fact that about 10% of the schools used random assignment as a part of the evaluation paradigm.

Though a 10% frequency is not high, it is quite encouraging from a methodological point of view to note that randomization, which is the cornerstone of experimental inference, is used in any amount. In other areas of education, such as early education and remedial education, it is very difficult to accomplish evaluation research in which random assignment of treatment methods is a feature. Usually the sponsors of such research resist randomization on the grounds that more benefit can

accrue to the participants if assignments of students to treatments is done on judgmental grounds. This destroys the value of the results of the experiment in favor of the supposed (but actual under examination) benefit to the participants. If 10% of schools would be willing to cooperate with experimental procedures which include random assignment of subjects to treatments, the field of evaluation of drug education programs should be quite a promising one.

Table 58 gives the results of those formal evaluations which did occur. The results in this table are similar for both elementary and secondary schools. These data reveal that about a quarter of the schools received no indications of the results of the evaluations as they should have. Remembering that the great majority of evaluations carried out were undertaken by in-house personnel who certainly would provide knowledge of results, it is apparent that most agencies which do evaluations do not report the results back to the schools where the studies were done. It should be pointed out that giving such knowledge of results after the completion of the study in no way damages the validity of the evaluation experiment.

The respondents' judgments of the adequacy of their programs, summarized in Table 59, indicated that their evaluation of the schools involved is more often favorable to the program than are the evaluation studies, since about two-thirds of the respondents gave their own programs a rating of "adequate." Such an attitude would probably not suggest a commonly felt need for repeated evaluations, and, indeed, Table 60 indicates that 64% of the elementary and 70% of the secondary schools feel that no formal reviews are needed or at least that no regular schedule is anticipated. Of those who set a schedule, most set it at every year.

Table 61 gives, for the elementary schools, the respondents' estimates of the reactions of various groups to their drug education programs. According to the figures in Table 61, dissatisfaction with the drug programs is rarely perceived, and approval, in fact, is the most common reaction for all of the groups about which the respondents were asked. Apparently also the respondents must have received some feedback from these groups because the percentages of "don't know" responses, with the exception of local government, are less than twenty. It may be rather difficult for the respondents to recognize as an official position an opinion expressed by a government official who happens to belong also to one or more of the other groups given--indeed it probably most often is not. But where government officials express an opinion as such, it seems to be one of approval. Table 62 does not convey the notion that the respondents perceive alarm and concern in the communities or their components, about the necessity for drug-related education.

Table 62 gives results analogous to those in Table 61, but for secondary schools. As has been the case for many other aspects of drug education reported above, the results for the secondary schools very closely parallel those for the elementary schools; that is, where the reactions of the various groups are perceived by the respondents, they are perceived as approving or strongly approving in most cases.

Conclusions and Policy Implications

For the reader who desires a summary of the survey, the section entitled "Overview" was placed prior to the more detailed presentation of the results. This section makes some interpretations of the survey results, for example, in relation to the background considerations presented earlier, and draws possible implications for policy or practice.

In terms of some of the background considerations described in the first section of this report, the emphasis on drug education in the schools appears to be primarily aimed at describing the physical and psychological effects of drugs on users. Less attention appears to be paid to legal and societal issues related to drugs, and even less to pharmacological properties. It was pointed out in the background considerations that drug programs which do not include alcohol and tobacco may be perceived as hypocritical by students. This is certainly not the case, however, for the schools surveyed. Alcohol and tobacco, in fact, are the most often treated substances in school drug programs. In addition, for most of the schools, drug education has been integrated into the school curriculum; therefore the "all-school" special program cautioned against appears to occur only rarely.

One of the background considerations cited earlier suggested that, since some drug use stems from dissatisfaction with the educational process, schools would do well to provide opportunities to have every student achieve success in some part of the educational program (Levy, 1970). Punitive policies which tend to exclude student drug users from school activities may in the long run promote even more use by denying students alternative modes of self-expression and recognition. That most schools reported no prohibitions from activities is indicative of some agreement

with this consideration. Schools that automatically prohibit participation in school activities should reexamine this policy since it may in the long run only further alienate the student and increase the likelihood of further drug use.

In preparing drug education materials for general use, one should keep in mind the majority practice in the use of the materials. In general, the practice will be to embed them in the context of a more general course either as a discrete topic, or worked in with the other material. The health teacher will be involved in many cases, but materials may also be used by the homeroom teacher, a physical education teacher, or a science teacher. If the context is one of a physical educaticnal course, one would need to reach some position about whether or not the class is or should be integrated by sex. One would need also to take into account the research results which indicate that the existence of an effect of drug instruction on attitudes is doubtful at best but that information and knowledge about drugs can be changed. Programs should perhaps, as many do, have as a primary aim providing students with information that they need in order to make rational decisions concerning use.

Fewer elementary schools than secondary schools had drug education programs of some kind, and, considering the probable bias in the response sample discussed earlier, there is some likelihood that schools with drug education programs are overrepresented. A number of elementary schools noted on their questionnaires that perhaps they were contacted by mistake, since (in their view) as elementary schools they were not appropriate locations for a drug education survey. As has been pointed out, however, drug education should begin in the elementary schools as an integrated

part of the curriculum. It appears reasonable that the elementary schools might at least consider their possible role in preparing their students for the later phases of drug education.

From the survey results, it is evident that the existence of an active drug education program is the exception rather than the rule. This finding is consistent with the related one that in almost all cases the drug problem is rated at most as one of many problems in importance, and, indeed, for a majority of schools it is at most a minor problem. Of those schools who had a drug education program, about half had had an evaluation of any kind, and about two-thirds contemplated no formal review or at least none on a regularly scheduled basis. Admittedly, the returns to the survey were not large, constituting a third of the sample after one follow-up. Of those not responding, the results of the very limited telephone follow-up indicate that the obtained sample would overrepresent those who had drug education programs. Some respondents exhibited concern in that about a fifth of the elementary school respondents and a third of the secondary school respondents who had drug education programs noted serious deficiencies in those programs. But, for the most part, the impression one receives is that the drug problem is not one of major concern to the schools, either elementary or secondary.

Such concern as there is about drug education seems to be relatively recent, since about four-fifths of the elementary and three-quarters of the secondary schools who have programs have initiated them in the last five years. The impetus for these programs stems not from pressures in the concerned community but from the staff, the school board, and the higher organizational levels of education. Perhaps one might interpret these agencies as representing the force of community opinion, but it should be

noted that the respondents could have but did not, indicate that the impetus for the establishment of the programs came from the PTA or from parents. They could have, but did not, record community dissatisfaction with their programs. Thus the concern for drug education seems to be concentrated in the educational establishment. This is not to imply that the communities are unconcerned about the problem, but they have not communicated to the schools a desire for expanded drug-related education.

Considering the results and conclusions stated in the paragraph above, one might question the wisdom of pursuing the matter of drug education with increased effort, particularly research effort. However, the result of such questioning could very well be that increased emphasis on drug-related education is desirable. If so, it is felt that a program of hard-nosed, empirical research would help to clarify the methodological issues in this type of education. At present, it can be inferred from the wide variety of evaluation procedures used that no generally accepted evaluation procedure has been established. An attempt to develop such a procedure, or perhaps a limited set of standard procedures, would speed up and improve the process of evaluation and the accumulation of knowledge in this field. For example, the existence and desirability of randomization procedures in program evaluation has been commented on favorably, and it is felt that the use of such procedures, as well as pre- and post-test procedures, is not sufficiently widespread. Most professional researchers would consider it a great advantage that such procedures be used. It is even more crucial that these experimental controls be applied when the evaluation is done by the staff that administers the program since their very participation

in the program would tend to limit their objectivity. Furthermore, it is clear that in this, as in other areas of educational practice, the needed research should begin with the development of a standard set of criteria with which to assess the effects of drug-related instruction. The research should evaluate as broad a range of instructional approaches and as wide a variety of target groups as possible. The considerations could be represented in a handbook or set of standard procedures that could be used for program evaluation. Probably there should also be an agency which could collect the results of drug program evaluation studies, such as might be conducted at a local level, and which could disseminate the accumulated and digested results of evaluations of which it has been apprised.

TABLE I

Affiliation of Responding

Elementary and Secondary Schools

	Elementary	Secondary
Public	96%	81%
Private	0%	4%
Catholic	0%	8%
Protestant	0%	2%
Jewish	0%	1%
Other	4%	4%

TABLE 2

Grade Level Composition of Samples:

Percentages Indicating a Majority

of Students in Various Categories

Grade Category	Elementary	Secondary
K - 6	75%	9%
7 - 9	6%	2%
10 - 12	0%	53%
Ungraded	1%	1%
No Majority or No Response	17%	36%

TABLE 3

Religious Composition of Schools:

Percentages Indicating a Majority in Various Categories

	Elementary	Secondary
Catholic	8%	15%
Protestant	53%	47%
Jewish	0%	1%
Other	1%	1%
Unaffiliated	3%	1%
No Majority or No Response	35%	34%

TABLE 4

Socioeconomic Status of Students in Sampled Schools:

Percentages of Respondents Indicating

A Majority in Various Categories

	Elementary	Secondary
Lower	10%	6%
Lower-Middle	23%	21%
Upper-Middle	19%	16%
Upper	1%	1%
No Response or No Majority	47%	56%

TABLE 5

Racial Composition of Schools:

Percentages Indicating a Majority in Various Categories

	Elementary	Secondary
American Indian	0%	1%
Black, Afro-American, Negro	4%	3%
Brown, Chicano, Mexican-American, Puerto Rican, Spanish-American	2%	1%
Oriental, Asian-American	1%	1%
White, Caucasian	86%	88%
No Majority or No Response	7%	7%

TABLE 7

Percentages of Students

Entering Post-Secondary Education*

Estimated Percentage of Students	Percentage of Schools Responding
None	2%
1 to 10%	3%
11 to 25%	12%
26 to 50%	35%
51 to 75%	34%
76 to 100%	13%

*Secondary Schools Only

TABLE 7

Percentages of Students

Entering Post-Secondary Education*

Estimated Percentage of Students	Percentage of Schools Responding
None	2%
1 to 10%	3%
11 to 25%	12%
26 to 50%	35%
51 to 75%	34%
76 to 100%	13%

*Secondary Schools Only

TABLE 8

Housing Arrangements of Students:

Percentages Indicating a Majority for Various Categories

	Elementary	Secondary
Family	95%	91%
On-Campus Housing	0%	4%
No Response	5%	5%

TABLE 9

Total Expenditures for Drug Education:

Percentages Responding to Various Categories

	Elementary	Secondary
Less than $1000	80%	74%
$1000 to $5000	15%	17%
More than $5000	5%	9%

TABLE 10

Respondents' Opinions as to Whether Drugs Are a Problem in Their School

	Elementary	Secondary
Unable to cope with the problem	0%	2%
The most important problem	1%	3%
One of many problems	18%	42%
A minor problem	26%	37%
No problem	65%	29%

TABLE 11

Percentages of Respondents' Estimates of Use and Sale of Various Substances Within Elementary Schools

	Use			Sale		
Substance	None	1% to 10%	More than 10%	None	1% to 10%	More than 10%
Tobacco	33%	51%	16%	*	*	*
Alcohol	66%	25%	9%	*	*	*
Marihuana	80%	18%	2%	92%	8%	0%
Amphetamines	86%	13%	1%	96%	4%	0%
Barbiturates	87%	12%	1%	97%	3%	0%
LSD	95%	5%	0%	99%	1%	0%
Cocaine	98%	2%	0%	99%	1%	0%
Heroin	97%	3%	0%	99%	1%	0%
Volatile Solvents	81%	18%	1%	*	*	*

*Not Asked

TABLE 12

Percentages of Respondents' Estimates of Use and Sale of Various Substances Within Secondary Schools

	Use			Sale		
Substance	None	1% to 10%	More than 10%	None	1% to 10%	More than 10%
Tobacco	3%	21%	76%	*	*	*
Alcohol	6%	33%	61%	*	*	*
Marihuana	23%	44%	33%	59%	39%	1%
Amphetamines	40%	49%	11%	68%	31%	1%
Barbiturates	42%	47%	11%	70%	30%	0%
LSD	57%	39%	4%	80%	20%	0%
Cocaine	79%	21%	0%	91%	9%	0%
Heroin	76%	24%	0%	91%	9%	0%
Volatile Solvents	60%	37%	3%	*	*	*

*Not Asked

TABLE 13

Basis of Estimations

of Use and/or Possession

	Elementary	Secondary
School Survey	2%	6%
Educated Guess	26%	34%
Personal Observation	45%	34%
Completely Impressionistic	2%	1%
Other	18%	9%
Mixture of Responses	6%	16%

TABLE 14

Percentages of Respondents' Estimates of Disciplinary Action For Use of Various Substances Within Elementary Schools

Substance	None	1% to 10%	More than 10%
Tobacco	73%	26%	1%
Alcohol	88%	10%	2%
Marihuana	93%	7%	0%
Amphetamines	96%	3%	1%
Barbiturates	96%	4%	0%
LSD	98%	2%	0%
Cocaine	99%	1%	0%
Heroin	99%	1%	0%
Volatile Solvents	95%	5%	0%

TABLE 15

Percentages of Respondents' Estimates of Disciplinary Action For Use of Various Substances Within Secondary Schools

Substance	None	1% to 10%	More than 10%
Tobacco	46%	43%	11%
Alcohol	50%	46%	4%
Marihuana	70%	29%	1%
Amphetamines	82%	18%	0%
Barbiturates	84%	15%	1%
LSD	90%	10%	0%
Cocaine	98%	2%	0%
Heroin	96%	4%	0%
Volatile Solvents	91%	9%	0%

TABLE 16

Trend Over the Last Five Years with Respect to Student Use of Various Drugs: Percentages Responding to Various Categories

Substance	Increase		Little or No Change		Decrease	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
Tobacco	23%	38%	71%	52%	7%	10%
Alcohol	21%	50%	78%	45%	1%	5%
Amphetamines	15%	44%	82%	41%	3%	15%
Barbiturates	14%	43%	83%	44%	3%	13%
LSD or Other Hallucinogens	7%	28%	87%	50%	6%	22%
Cocaine	5%	17%	90%	72%	5%	11%
Heroin	4%	20%	91%	67%	5%	13%
Marihuana	21%	61%	75%	30%	4%	9%
Volatile Solvents	13%	18%	81%	61%	6%	22%

TABLE 17

Adoption and Revision of Written Policy Related to Drugs

	Adopted		Revised*	
	Elementary	Secondary	Elementary	Secondary
Within last year	10%	12%	62%	62%
Within last three years	18%	24%	29%	29%
Within last five years	7%	7%	6%	6%
More than five years ago	3%	6%	3%	3%
No policy	36%	29%		
Policy unknown	4%	6%		
Other**	21%	16%		

*Percentages based only on those having policy.

**A variety of written responses were obtained but have not been categorized.

TABLE 18

Principal Authority Responsible for Formulation of Drug Policy:

Percentages Checking Various Categories

	Elementary	Secondary
State Department of Education	15%	9%
Local School District	38%	34%
School Principal	10%	27%
School Faculty	1%	15%
State Law	9%	9%
Students	2%	8%
PTA	4%	3%
Other	32%	28%
No Policy	6%	9%
No Response	20%	13%

TABLE 19

Roles of Students in Formulating and Implementing School Drug Policy

Role	Formulation		Implementation	
	Elementary	Secondary	Elementary	Secondary
None	49%	40%	48%	46%
Joint Committee with Faculty	19%	29%	15%	21%
In Separate Committees	2%	4%	3%	5%
As Individuals	8%	15%	9%	15%
Advisory	11%	20%	8%	18%
Voting Members	2%	3%	2%	2%
Joint Committee with PTA	5%	5%	4%	2%
Other	23%	2%	2%	2%

TABLE 20

Percentages Indicating Coverage of Written and Effective Drug Policy for Various Categories of Drugs

Substance	Covered by Written Policy		Not Written But Effective		No Response	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
Tobacco	38%	68%	32%	20%	30%	12%
Alcohol	37%	63%	27%	23%	36%	14%
Amphetamines	32%	44%	27%	33%	41%	23%
Barbiturates	32%	44%	27%	33%	41%	23%
LSD or Other Hallucinogens	32%	44%	27%	32%	41%	24%
Cocaine	31%	44%	27%	32%	42%	24%
Heroin	32%	43%	27%	32%	41%	25%
Marihuana	32%	45%	27%	32%	41%	23%
Volatile Solvents	32%	39%	28%	32%	40%	29%

TABLE 21

Percentages Indicating Coverage of Various Topics by Written and Effective Policy

	Elementary		Secondary	
	Effective	Written	Effective	Written
Discriminates between sale and casual transfer	18%	8%	32%	7%
Discriminates between possession and sale	20%	10%	36%	11%
Discriminates between possession and use	19%	12%	31%	11%
Differentiates among types of drugs	19%	8%	29%	6%
Applies to students	41%	31%	59%	39%
Applies to faculty	34%	19%	47%	19%
Applies to administration	32%	19%	45%	18%
Applies to other employees	31%	16%	42%	15%
Includes tobacco	35%	21%	44%	39%
Includes alcohol	37%	24%	53%	44%
Includes marihuana	33%	23%	56%	31%
Includes amphetamines	31%	22%	52%	29%
Includes barbiturates	31%	22%	52%	29%
Includes LSD or other hallucinogens	30%	22%	51%	29%
Includes cocaine	30%	21%	49%	28%
Includes heroin	30%	21%	50%	28%
Includes volatile solvents	31%	19%	47%	23%

TABLE 22

Initial and Final Authority for Setting Penalties or Determining Action with Respect to Individual Drug Violations

	Elementary		Secondary	
	Initial	Final	Initial	Final
All penalties set by policy and no discretion allowed	10%	9%	12%	7%
No response	90%	91%	88%	83%

TABLE 23

Discretion Given to Faculty in Handling Individual Drug Cases

	Elementary	Secondary
Complete	20%	22%
Within Established Guidelines	46%	59%
No Discretion	15%	13%
Other*	19%	6%

*A variety of written responses were obtained but have not been categorized at this time.

TABLE 24

Action Normally Taken When Teacher Finds Student in Possession of Various Substances: Percent Indicating for Elementary Schools

Substance	Refer to Guidance Counselor	Notify Parents	Refer to Principal	Notify Police
Tobacco	9%	29%	59%	3%
Alcohol	8%	26%	42%	4%
Amphetamines	6%	21%	35%	10%
Barbiturates	6%	21%	34%	10%
LSD or Other Hallocinogens	6%	20%	34%	10%
Cocaine	6%	20%	34%	10%
Heroin	6%	20%	34%	10%
Marihuana	6%	21%	35%	10%
Volatile Solvents	7%	20%	35%	7%

TABLE 25

Action Normally Taken When Teacher Finds Student in Possession of Various Substances: Percentages Indicating for Secondary Schools

Substance	Refer to Guidance Counselor	Notify Parents	Refer to Principal	Notify Police
Tobacco	7%	18%	56%	1%
Alcohol	10%	30%	56%	9%
Amphetamines	15%	25%	43%	16%
Barbiturates	14%	26%	43%	17%
LSD or Other Hallucinogens	13%	24%	40%	20%
Cocaine	12%	21%	38%	21%
Heroin	11%	21%	38%	21%
Marihuana	15%	27%	44%	22%
Volatile Solvents	11%	23%	39%	14%

TABLE 26

Persons to Whom a School Employee Must Report Upon Finding a Student Using or Selling Drugs: Percentages Responding to Various Categories

	Elementary		Secondary	
	Sale	Use	Sale	Use
Parents	8%	10%	5%	7%
School Principal	77%	78%	75%	72%
Local Police	10%	7%	8%	4%
Guidance Counselor	4%	8%	6%	13%
School District Superintendent	10%	10%	8%	9%
No One	5%	6%	9%	12%
Other	1%	2%	6%	7%
No Response	14%	11%	7%	5%

TABLE 27

Number of Students Receiving a Variety of Penalties for Possession or Sale of Drugs or Alcohol: Percentages Indicating Various Frequencies

	None		1 to 10		More than 10	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
Warning	76%	44%	20%	42%	4%	14%
Probation	88%	62%	9%	32%	3%	6%
Suspension	85%	50%	13%	43%	2%	7%
Expulsion	96%	79%	4%	21%	0%	0%
Extra Duties	97%	90%	2%	8%	1%	2%
Detention after regular school hours	96%	88%	3%	10%	1%	2%

TABLE 28

School Activities from Which Drug Users Are Prohibited:

Percentages Responding to Various Categories

	Elementary	Secondary
Receiving academic awards	4%	6%
Representing school in athletic or other events	19%	45%
Holding school office	8%	15%
Joining certain school organizations	6%	12%
Promotion to next grade	1%	2%
Graduating	1%	4%
No response	80%	53%

TABLE 29

Access of School Administrative Officials to Information Concerning Student Drug Use

	Elementary	Secondary
Routine Access	50%	37%
By Request Only	17%	18%
Under Spetial Circumstances	27%	45%
Never	5%	1%

TABLE 30

Policy on Releasing Information About Student Drug Use

	Elementary			Secondary		
	Yes	No	No Response	Yes	No	No Response
Military Service	3%	63%	34%	15%	72%	13%
Potential Employers	2%	64%	34%	12%	75%	13%
Elementary or Secondary Schools	34%	39%	27%	26%	61%	13%
Colleges or Universities	4%	61%	35%	8%	77%	15%
Federal Agencies	9%	57%	34%	22%	65%	13%
Local Police	36%	37%	27%	48%	41%	11%
Insurance Companies or Credit Agencies	3%	63%	34%	5%	80%	15%

TABLE 31

Persons to Whom Curious Students Would Most Likely Be Sent: Percentages Checking Various Categories*

	Elementary	Secondary
Physical Education Teacher	12%	15%
Nurse	28%	23%
Guidance Counselor	26%	58%
Civics or Government Teacher	2%	2%
Any Instructor	10%	9%
Principal or Other Administrator	37%	32%
No One in Particular	2%	3%
Other	20%	21%
No Response	4%	1%

TABLE 32

Respondents' Judgments as to Whom Students Would Be Most Likely to Seek Out Informally: Percentages Checking Various Categories

	Elementary	Secondary
Physical Education Teacher	16%	21%
Nurse	17%	17%
Guidance Counselor	28%	57%
Civics or Government Teacher	2%	3%
Any Instructor	34%	18%
Principal or Other Administrator	25%	26%
Other Students	30%	44%
No One in Particular	7%	4%
Other	17%	15%
No Response	2%	2%

Principal Reason for Choosing to Whom Student is Sent:

Percentages Responding to Various Categories*

	Elementary	Secondary
Matter of policy	13%	14%
Knowledgeable on drug-related matters	43%	50%
Instructor in related topic	14%	12%
Good counselor	30%	41%
Has strong views on drug-related matters	4%	3%
Well liked and admired by students	32%	33%
Well liked and admired by parents	9%	5%
Other	7%	6%
No response	5%	2%

TABLE 34

Length of Time Schools Have Given Instruction on Drug-Related Matters

	Elementary	Secondary
Less than one year	8%	8%
One year	9%	7%
Two years	26%	19%
Three years	23%	25%
Four years	12%	9%
Five years	4%	6%
More than five years	17%	26%

TABLE 35

Incidents Precipitating the Adoption of Drug Education Programs: Percentages Responding to Various Categories

	Elementary	Secondary
Increased drug use by students	27%	43%
Increased prevalence of local drug-related crime	23%	16%
Particularly shocking local drug-related event	6%	4%
Knowledge of increased rate of drug-related offenses	3%	30%
Change of school personnel	4%	6%
Initiation of drug education at nearby schools	17%	21%
Other	18%	16%
No response	32%	23%

TABLE 36

Principal Influences Leading to the Establishment of Drug-Related Instruction: Percentages Responding to Various Categories

	Elementary	Secondary
Parents	20%	14%
Staff	36%	40%
PTA	16%	7%
District, state, or higher organizational level	28%	31%
School board	25%	21%
School administration	46%	48%
Students	13%	20%
No record	3%	5%
No response	29%	20%

TABLE 37

Percentage of Elementary Schools Emphasizing Selected Topics in Academic Years 1971-2 and 1972-3

Topic Emphasized	Academic Years 1971-2	1972-3
Physical and psychological effects of drugs on the user	80%	85%
Definition of drug abuse	62%	65%
Federal, state, and local drug laws	46%	51%
Legal consequences of apprehension or conviction for drug law violations	47%	51%
Beneficial effects of drugs	49%	55%
Parental influence on drug abuse	28%	31%
Peer influences on drug abuse	55%	58%
Economic costs to nation of drug abuse	30%	34%
Effects of mixing drugs	34%	38%
Care in use of medicines	67%	70%
Use of media and drug advertising	33%	34%
Pharmacological properties of various drugs	21%	23%
Persistent myths and rumors about drugs	54%	55%
Current gaps in knowledge about drugs	40%	44%
Drug policy of the federal government	22%	25%
Social and economic consequences to individual	59%	66%
Moral and ethical issues related to drugs	40%	43%
LSD	54%	55%
Marihuana	61%	63%
Other hallucinogens	48%	48%
Stimulents	59%	59%
Depressants	59%	60%
Cocaine	48%	49%
Tobacco	72%	74%
Alcohol	70%	72%
Heroin	54%	54%
Other narcotics	46%	48%
Volatile chemicals	53%	55%
Tobacco advertisements	54%	55%
Alcohol advertisements	50%	50%
Other	5%	5%

TABLE 38

Percentage of Secondary Schools Emphasizing Selected Topics in Academic Years 1971-2 and 1972-3

Topic Emphasized	Academic Years 1971-2	1972-3
Physical and psychological effects of drugs on the user	85%	85%
Definition of drug abuse	68%	69%
Federal, state, and local drug laws	65%	65%
Legal consequences of apprehension or conviction for drug law violations	65%	65%
Beneficial effects of drugs	39%	42%
Parental influence on drug abuse	31%	32%
Peer influences on drug abuse	62%	66%
Economic costs to nation of drug abuse	39%	42%
Effects of mixing drugs	41%	44%
Care in use of medicines	55%	56%
Use of media and drug advertising	28%	33%
Pharmacological properties of various drugs	29%	31%
Persistent myths and rumors about drugs	57%	59%
Current gaps in knowledge about drugs	48%	51%
Drug policy of the federal government	30%	31%
Social and economic consequences to individual	62%	66%
Moral and ethical issues related to drugs	53%	54%
LSD	61%	61%
Marihuana	71%	73%
Other hallucinogens	60%	62%
Stimulents	65%	68%
Depressants	65%	68%
Cocaine	53%	57%
Tobacco	70%	73%
Alcohol	73%	75%
Heroin	61%	63%
Other narcotics	52%	56%
Volatile chemicals	46%	48%
Tobacco advertisements	44%	50%
Alcohol advertisements	46%	52%
Other	5%	6%

TABLE 39

Plans for Drug Education

	Elementary	Secondary
Try a new approach	4%	10%
Expand present program	32%	29%
Discontinue present program	0%	0%
Continue with present program	61%	59%
Reduce present program	1%	2%
Other	8%	6%

TABLE 40

Percentage of Ratings of Importance of Possible Goals of Drug Education at Elementary Schools

Goal	Most Important	Somewhat Important	Less Important
To increase student knowledge about the physiological and psychological effects of drugs	80%	12%	0%
To increase knowledge about the various legal aspects of drug use	18%	48%	17%
To change students' attitudes about drugs	63%	16%	7%
To help students make rational decisions about drug use	74%	9%	0%
Give students knowledge about the appropriate use of drugs	51%	27%	6%
Acquaint students with social contexts in which drugs are used	22%	36%	20%
Acquaint students with the history of drug use	9%	31%	37%
Acquaint students with differing cultural influences related to drugs	9%	29%	39%
Acquaint students with economic aspects of drugs	20%	39%	22%

TABLE 41

Percentage of Ratings of Importance of Possible Goals of Drug Education at Secondary Schools

Goal	Most Important	Somewhat Important	Less Important
To increase student knowledge about the physiological and psychological effects of drugs	79%	17%	1%
To increase knowledge about the various legal aspects of drug use	25%	47%	17%
To change students' attitudes about drugs	64%	23%	3%
To help students make rational decisions about drug use	84%	8%	1%
Give students knowledge about the appropriate use of drugs	40%	36%	13%
Acquaint students with social contexts in which drugs are used	18%	43%	25%
Acquaint students with the history of drug use	4%	30%	52%
Acquaint students with differing cultural influences related to drugs	7%	35%	44%
Acquaint students with economic aspects of drugs	14%	45%	29%

TABLE 42

Drug-Related Problems of Concern to Students: Elementary Schools

	Of Great Concern	Of Some Concern	Of Little Concern
Physical and Psychological Effects	39%	45%	16%
Effects of Mixing Drugs	8%	36%	56%
Relative Harmfulness of Drugs	40%	43%	17%
Where to Receive Help or Treatment	11%	40%	49%
How to Tell Family about Drug Problems	18%	25%	57%
How to Help Friend with Drug Problem	23%	36%	41%
How to Secure Legal Assistance	5%	20%	75%
Laws Related to Drugs	10%	36%	54%
Legal Consequences of Conviction	12%	45%	43%

TABLE 43

Drug-Related Problems of Concern to Students: Secondary Schools

	Of Great Concern	Of Some Concern	Of Little Concern
Physical and Psychological Effects	38%	52%	10%
Effects of Mixing Drugs	10%	53%	37%
Relative Harmfulness of Drugs	34%	49%	17%
Where He Receives Help or Treatment	20%	53%	28%
How to Tell Family about Drug Problem	23%	34%	43%
How to Help Friend with Drug Problem	32%	51%	18%
How to Secure Legal Assistance	7%	34%	60%
Laws Related to Drugs	13%	40%	48%
Legal Consequences of Conviction	21%	44%	35%

TABLE 44.

Percentage of Elementary Schools Using Approaches to Drug Education in Academic Years 1971-2 and 1972-3

Approaches	Academic Years 1971-2	1972-3
Student drug education teams	12%	12%
Hot line	8%	10%
Discussion sessions	56%	58%
Drug counselor	13%	15%
Older students counseling younger students	11%	11%
Instructor seminars	26%	22%
Instructor workshops	31%	32%
Audio-visual presentations	65%	70%
Lecture by clergy	8%	5%
Lecture by law enforcement officer	48%	44%
Lecture by attorney	9%	7%
Lecture by physician	23%	24%
Lecture by ex-user	18%	19%
Other	8%	9%

TABLE 45

Percentage of Secondary Schools Using Approaches to Drug Education in Academic Years 1971-2 and 1972-3

Approaches	Academic Years 1971-2	1972-3
Student drug education teams	13%	14%
Hot line	14%	17%
Discussion sessions	61%	64%
Drug counselor	17%	21%
Older students counseling younger students	13%	14%
Instructor seminars	22%	23%
Instructor workshops	27%	28%
Audio-visual presentations	64%	67%
Lecture by clergy	12%	11%
Lecture by law enforcement officer	50%	47%
Lecture by attorney	15%	14%
Lecture by physician	25%	24%
Lecture by ex-user	43%	34%
Other	10%	11%

TABLE 46

Percentages Responding Affirmatively to Questions Regarding Teacher Education Related to Drugs

	Elementary	Secondary
Have any teachers taken in-service training?	59%	66%
Does school require in-service training?	17%	10%
Does school or local school district provide in-service training?	46%	35%

TABLE 47

Sources for Drug Education Program Content Outlines:

Percentages for Various Categories

	Elementary	Secondary
State government agency	44%	58%
Federal government agency	27%	36%
Private source	26%	39%
Local school district	40%	29%
Self-prepared	20%	24%
Another school or school district	16%	20%
Other	8%	8%
No response	26%	22%

TABLE 48

Number and Percentages of Personnel in Secondary Schools

Who Are Charged with Drug-Related Instruction

		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
Physical Education Teacher	#	7	10	10	10	14	16	21	58	61	126	134	114	110	156
	%	4	6	6	6	9	10	13	37	39	81	86	73	71	
Nurse	#	16	18	19	18	21	23	24	29	29	59	70	70	69	88
	%	18	20	22	20	24	26	27	33	33	67	80	80	78	
Guidance Counselor	#	4	5	5	6	6	7	7	29	29	85	93	93	93	96
	%	4	5	5	6	6	7	7	30	30	89	97	97	97	
Social Studies Teacher	#	6	8	8	8	11	16	19	41	45	84	89	110	119	135
	%	4	6	6	6	8	12	14	30	33	62	66	82	88	
Health Teacher	#	9	12	13	17	22	29	38	63	66	133	155	122	116	204
	%	4	6	6	8	11	14	19	31	32	65	76	60	57	
Science Teacher	#	3	5	5	5	9	14	17	51	56	114	132	111	99	161
	%	2	3	3	3	6	9	11	32	35	71	82	69	62	
Principal or other Administrator	#	10	13	13	13	13	13	13	20	20	49	53	53	53	57
	%	18	23	23	23	23	23	23	35	35	86	93	93	93	
Homeroom Teacher	#	15	21	21	19	19	18	17	10	10	25	26	26	26	48
	%	31	44	44	40	40	37	35	21	21	52	54	54	54	
Other	#	8	8	8	9	8	7	10	10	8	23	34	35	34	47
	%	17	17	17	19	17	15	21	21	17	49	72	74	72	
None	#	3	3	3	3	2	1	1	2	2	4	5	5	6	8
	%	37	37	37	37	25	12	12	25	25	50	62	62	75	
Not Applicable	#	2	1	1	1	1	1	1	0	0	0	0	0	0	2
	%	100	50	50	50	50	50	50	0	0	0	0	0	0	

TABLE 49

Number and Percentages of Secondary Schools Including Drug-Related Material by Course and by Level

Course		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
Social Studies	#	13	14	14	14	21	28	30	53	56	97	112	118	150	182
	%	7	8	8	8	11	15	16	29	31	53	61	65	82	
Health	#	29	38	39	44	61	66	69	86	90	154	167	132	127	240
	%	12	16	16	18	25	27	29	36	37	64	79	55	53	
Physical Education	#	11	13	14	14	16	20	24	56	58	111	123	98	97	143
	%	7	9	10	10	11	14	17	39	41	78	86	69	68	
Psychology	#	2	1	1	1	1	1	1	3	2	15	32	79	111	117
	%	2	1	1	1	1	1	1	3	2	13	27	68	95	
Chemistry	#	1	1	1	1	1	1	1	3	2	18	42	129	97	140
	%	1	1	1	1	1	1	1	2	1	13	30	92	69	
Biology	#	2	2	2	2	2	2	3	8	10	58	197	85	72	208
	%	1	1	1	1	1	1	1	4	5	28	95	41	35	
General Science	#	5	7	7	7	13	17	23	52	58	139	59	41	38	164
	%	3	4	4	4	8	10	14	32	35	85	36	25	23	
Other	#	7	13	17	23	52	58	139	59	41	28	5	5	5	165
	%	4	8	10	14	32	35	84	36	25	23	3	3	3	

TABLE 50

Number and Percentages of Secondary Schools Using Various Degrees of Integration of Drug-Related Material by Grade

Drug-Related Material Given		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
As a Separate Course	#	1	2	2	2	2	2	4	13	10	23	22	21	15	44
	%	2	5	5	5	5	5	9	30	23	52	50	48	34	
As a Separate Topic in Broad Course	#	15	18	18	21	26	35	39	55	62	116	137	118	123	169
	%	9	11	11	12	15	21	23	33	37	69	81	70	73	
As Part of a Broad Course Integrated with Other Topics	#	30	35	37	36	47	50	51	63	67	121	143	136	137	169
	%	18	21	22	21	28	30	30	37	40	72	85	80	81	

TABLE 51

Number and Percentages of Secondary Schools Including Drug-Related Instruction in 1972-73

		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
Drug-Related Instruction Will Be Given in 1972-73*	#	23	33	35	38	55	59	69	104	110	186	222	183	183	267
	%	9	12	13	14	21	22	26	39	41	70	83	69	69	
Drug-Related Material Will Be Given as a Separate Course in 1972-73**	#	2	2	2	3	2	2	3	9	9	26	33	24	19	57
	%	4	4	4	5	4	4	5	16	16	46	58	42	33	

*Instruction will not be given in 1972-73. N=11

**Instruction never appears as a separate course. N=218

TABLE 52

Number and Percentages of Elementary Schools Including

Drug-Related Instruction in 1972-73

		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
Drug-Related Instruction Will Be Given in 1972-73*	#	78	104	104	125	156	199	191	76	70	38	33	34	31	240
	%	32	43	43	52	65	83	80	32	29	16	14	14	13	
Drug-Related Material Will Be Given as a Separate Course in 1972-73**	#	11	12	12	16	29	48	49	18	14	8	7	9	7	68
	%	16	18	18	24	43	71	72	26	21	12	11	13	11	

*Instruction will not be given in 1972-73. N=4

**Instruction never appears as a separate course. N=166

TABLE 53

Number and Percentages of Elementary Schools Using Various Degrees of Integration of Drug-Related Material by Grade

Drug-Related Material Given		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
As a Separate Course	#	10	15	15	17	27	40	44	11	10	5	2	6	3	54
	%	19	28	28	31	50	74	81	20	19	9	4	11	6	
As a Separate Topic in Broad Course	#	36	54	53	58	73	91	92	47	42	23	24	20	20	124
	%	29	44	43	47	59	73	74	38	34	19	19	16	16	
As Part of a Broad Course Integrated with Other Topics	#	65	94	97	105	106	117	105	30	28	16	13	13	12	146
	%	45	64	66	72	73	80	72	21	19	11	9	9	8	

TABLE 54

Number and Percentages of Elementary Schools Including Drug-Related Material by Course and by Level

Course		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
Social Studies	#	35	51	52	56	72	89	89	39	41	21	15	17	17	129
	%	27	40	40	43	56	69	69	30	32	16	12	13	13	
Health	#	74	119	125	142	157	172	164	57	48	28	22	19	18	210
	%	35	57	59	68	75	82	78	27	23	13	10	9	9	
Physical Education	#	17	32	34	45	57	69	68	42	43	26	20	19	19	101
	%	17	32	34	45	56	68	67	42	43	26	20	19	19	
Psychology	#	1	3	2	3	2	3	4	3	4	3	3	6	9	14
	%	7	21	14	21	14	21	29	21	29	21	21	43	64	
Chemistry	#	1	1	1	2	1	2	1	3	3	5	13	24	18	25
	%	4	4	4	8	4	8	4	12	12	20	52	96	72	
Biology	#	1	1	1	2	1	3	4	7	10	15	26	15	15	34
	%	3	3	3	6	3	6	12	21	29	44	76	44	41	
General Science	#	23	31	32	40	55	72	81	44	39	23	7	5	5	111
	%	21	28	29	36	50	65	73	40	35	21	6	5	5	
Other	#	40	55	72	81	44	39	23	7	5	5	7	11	14	114
	%	35	48	63	71	39	34	20	6	4	4	6	9	12	

TABLE 55

Number and Percentages of Personnel in Elementary Schools Who Are Charged With Drug-Related Instruction

		K	1	2	3	4	5	6	7	8	9	10	11	12	No. of Schools
Physical Education Teacher	#	12	21	22	27	41	52	55	33	33	18	12	10	9	79
	%	15	27	28	34	52	66	70	42	42	23	15	13	11	
Nurse	#	38	48	50	50	56	62	57	19	19	11	9	9	9	70
	%	54	69	71	71	80	89	81	27	27	16	13	13	13	
Guidance Counselor	#	13	19	19	20	23	26	28	25	24	14	11	11	12	39
	%	33	49	49	51	59	67	72	64	62	36	28	28	31	
Social Studies Teacher	#	17	27	28	31	37	45	50	26	24	14	11	10	12	74
	%	23	37	38	42	50	61	68	35	32	19	15	14	16	
Health Teacher	#	24	45	48	56	64	77	78	39	33	22	18	14	12	109
	%	22	41	44	51	59	71	72	36	30	20	17	13	11	
Science Teacher	#	13	23	24	27	44	61	70	45	44	24	20	16	14	99
	%	13	23	24	27	44	62	71	45	44	24	20	16	14	
Principal or other Administrator	#	19	29	30	31	32	34	35	14	13	9	7	7	7	37
	%	51	78	81	84	87	92	95	38	35	27	19	19	19	
Homeroom Teacher	#	82	118	119	119	122	135	115	14	13	4	3	3	3	157
	%	52	75	76	76	78	86	73	9	8	3	2	2	2	
Other	#	12	14	15	15	17	21	20	5	4	2	2	2	2	22
	%	55	64	68	68	77	95	91	23	18	9	9	9	9	
None	#	3	3	4	3	4	3	3	2	1	1	1	1	1	5
	%	60	60	80	60	80	60	60	40	10	10	10	10	10	
Not Applicable	#	3	6	4	5	4	1	3	1	1	0	0	0	0	9
	%	33	67	44	56	44	11	33	11	11	0	0	0	0	

TABLE 56

Percentage of Elementary and Secondary Schools For Which Evaluations Have Been or Will Be Done by Various Agencies

	Elementary		Secondary	
	Past	Future	Past	Future
In-house personnel	40%	39%	48%	45%
A private consultant or research contractor	1%	2%	2%	3%
A federal agency	2%	3%	1%	2%
A state governmental agency	6%	6%	7%	5%
A group from the community at large	9%	14%	9%	11%
A special committee of students	2%	10%	9%	12%
A parents' organization	8%	10%	4%	7%
Other	1%	1%	0%	0%
None or no response	54%	51%	49%	50%

TABLE 57

Percentage of Characteristics of Evaluations Used by Those Who Indicated Any Characteristic

	Elementary		Secondary	
	Past (n*=96)	Future (n=110)	Past (n=139)	Future (n=138)
Use of tests of drug-related information	45%	51%	46%	44%
Use of tests of drug-related attitudes	36%	42%	38%	42%
Use of personality tests	7%	11%	8%	9%
Student interviews	55%	56%	68%	65%
Teacher interviews	43%	46%	41%	44%
Parent interviews	34%	39%	32%	38%
Monitoring changes in incidence of drug usage	15%	24%	27%	36%
Random assignment of students to different instructional programs	9%	10%	11%	14%
Pre- and post-testing	26%	28%	12%	19%
Use of descriptive and/or inferential statistics	22%	20%	18%	18%
Other	2%	2%	1%	1%

*n is the number of cases on which the percentages in the columns are based.

TABLE 58

Results of Formal Evaluation of Drug Education Programs

	Elementary	Secondary
No Results Received	25%	29%
Program Judged Inadequate	21%	16%
Program Judged Fairly Adequate	46%	48%
Existence of Serious Deficiencies	8%	7%

TABLE 59

Respondents' Judgments as to

The Adequacy of Their Drug Education Programs

	Elementary	Secondary
Excellent	7%	4%
Adequate	70%	62%
Serious Deficiencies	23%	34%

TABLE 60

Plans Regarding Timing of

Reviews of Drug Education Programs

	Elementary	Secondary
No formal reviews are contemplated	27%	22%
At least every six months	5%	4%
Once every year	29%	25%
Once every two years	2%	1%
No regular schedule is anticipated	37%	48%

TABLE 61

Reactions of Various Groups to Elementary Schools to Drug Education Programs

Groups	Don't Know	Strong Approval	Approval	Indifference	Disapproval	Strong Disapproval
Students	19%	8%	40%	13%	1%	0%
Parents	16%	13%	40%	12%	1%	0%
Faculty	11%	15%	48%	8%	0%	0%
School Administration	9%	23%	45%	3%	1%	9%
Local Government Officials	30%	10%	29%	7%	1%	0%
General Community	19%	10%	40%	10%	1%	0%

TABLE 62

Reactions to Various Groups to Secondary Schools

to Drug Education Programs

Groups	Don't Know	Strong Approval	Approval	Indifference	Disapproval	Strong Disapproval
Students	10%	6%	42%	28%	1%	0%
Parents	14%	11%	42%	19%	1%	0%
Faculty	7%	14%	54%	12%	1%	0%
School Administration	6%	20%	53%	5%	3%	0%
Local Government Officials	30%	9%	32%	13%	1%	0%
General Community	21%	9%	37%	17%	1%	0%

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Appendix

Outline for Telephone Survey of Non-Respondents

1. Identifying information
   a. Elementary School_____
      Secondary School _____
   b. School Name_____
   c. Individual Contacted

2. Attempt to contact school principal first and say something like the following.

   "We are calling selected schools in an effort to obtain some information for the National Commission on Marihuana and Dangerous Drugs. Your school was one of these selected to participate in a national survey of drug education programs. Since we have not received your questionnaire yet, we were wondering if you have received it?"

3. "Our response rate for this survey was lower than we had anticipated, and we are now attempting to identify some of the reasons why schools did not respond. Is there a specific reason why your school did not answer?"

4. "Do you have any separate courses specifically aimed at teaching about drugs and drug abuse?"

5. "Is the issue of drugs dealt with within any part of your regular program?"