

FORMAL GROUP PARTICIPATION AND ADOLESCENT DRUG USE

CENTRE FOR NEWFOUNDLAND STUDIES

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FORMAL GROUP PARTICIPATION AND ADOLESCENT DRUG USE

by

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A thesis submitted to the School of Graduate Studies
in partial fulfilment of the requirements
for the degree of
Master of Education

Faculty of Education
Memorial University of Newfoundland

October, 1991

St. John's

Newfoundland



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ISBN 0-315-68269-8

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Acknowledgements

To my wife, Linda and my children Zachary, Hayley and Charles. I took everything from you, had you live apart from me and at a lower standard of living and yet you fully supported my efforts. I can only say thank you and I love you all very much.

The writer expresses sincere thanks to his supervisor, Dr. Bryan Hartman, for his continual support and analysis of my work.

For editorial advice, I extend a warm thank you to Fred Manuel and Richard Fuchs.

To all who helped in other ways my appreciation can only be shown with the completion of this work.

Abstract

The purpose of this study is to examine the relationship between high school student participation in formal school and non-school groups and self-reported drug consumption of tobacco, alcohol and cannabis-related products. These formal adolescent groups have received little attention in the literature pertaining to both licit and illicit drug use. Rather, most research to date centers on the role which small, informal peer groups play in nurturing and encouraging the development of substance use.

This study was undertaken through self-administered questionnaires which were distributed to students (grade 8 to 12) in a rural Newfoundland integrated high school. This study found significant relationships among the kinds of formal group, the amount of involvement, and the usage of particular substances. Participation in the non-school groups was associated with a decrease in alcohol use, but no significant correlation was found between participation in school groups and the use of this substance. With regard to tobacco, a modest level of involvement (in both groups) is correlated with lower usage than that of the least active students. However the students most involved in school groups use more tobacco than do those associated with any other level of participation. Last, the non-school groups promote norm retention more successfully than do the school groups. These

results suggest an educational philosophy which supports a balanced, flexible system that encourages student membership and participation in both school and non-school groups if the pro-social goals of education are to be met.

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CHAPTER I

The Problem

Introduction

This thesis explores the relationship between student participation in formal adolescent groups (school and non-school) and self-reported drug consumption behaviour. In addition, it assesses the assumptions which associate group participation with norm retention. A total of 296 students, ranging from grades 8 to 12, in a rural Newfoundland integrated high school completed self-administered questionnaires (Appendix A). The formal adolescent groups consist of those inside school (e.g., Student Council) and those outside school (e.g., Church Youth). The substances studied are tobacco, alcohol and cannabis.

Research suggests that formal group memberships predispose the individual to conform (Reckless, 1967). The consensual sets of expectations concomitant with the individual's performance within specified social roles in an organization serve to commit the individual to sharing and adopting the normative rule structure in which he or she is located. Reckless states:

Meaningful roles in a society are defined, distributed and followed. ... Roles define the range and limits of behaviour. People are hedged in by norms and expectations--when they step out of their

roles, they are overstepping bounds. When they have no roles to follow, they play the game of life by ear and take the chance of running afoul of the laws and customs. Consequently, the availability of meaningful social roles in a modern society is an important component of containment. (p. 471)

Roles, then, are clearly of cardinal importance for norm retention.

Adolescent conformity to norms has much to do with the family and school. Oetting and Beauvais (1986b) observed:

... young people who see the family as caring and as providing strong sanctions (against drug use) are more likely to identify with peer groups with strong sanctions against drugs. They are also likely to do better in school, and young people with good school adjustment are less likely to associate with peers who strongly encourage drug use. (p. 20)

The identification with pending adult roles is another form of commitment to conventional lines of action and serves to induce conformity. Of course, as Reckless (1967) noted, teenagers often lack meaningful roles and do play the game of life "by ear".

The school continues to be a central institution in which normative and legal behaviour can be produced. Despite some reports of diminished levels of adolescent substance use

(Alcohol and Drug Dependency Commission of Newfoundland and Labrador, 1986; Addiction Research Foundation, 1988; King, Robertson & Warren, 1985) educators and health professionals remain concerned that school-based strategies maintain their effectiveness in discouraging substance use. Notwithstanding some decrease, consumption rates for most legal and illegal substances are high among Canadian adolescents. A bulletin from the Foundation gave the results of a survey of substance abuse among high school students in British Columbia. Included in the findings were: (a) that one in five students used alcohol once a week; (b) that 30% used marijuana at least once in the past year; and (c) that 32% of females and 25% of males smoked tobacco. Provincial Health Minister Peter Dueck called the level of use "shocking" (Addiction Research Foundation, 1988).

Nelson (1986) paints a bleak picture of the difficulties involved in controlling substance abuse. He believes that those who treat this problem are in a dilemma in that the task was "not specific enough to make a high degree of skill possible or to result in tangible and easily measured results" (p. 5). Although Nelson was discussing religious leadership, his remarks are also applicable to the high school context of drug use. Students will use and abuse substances such as tobacco, alcohol and cannabis. Combative policies will not always produce success and a whole web of blame will arise that includes teachers, parents, government and broad social

forces (e.g., mass media).

The informal peer group plays an important role in adolescent life but its variable effects on substance use have not been fully understood. This group's influence can be held in check in several ways. Family background, religion, socioeconomic status, educational achievement and career aspirations all mediate the anti-normative influence of the informal peer group (Oetting & Beauvais, 1986). The organizational characteristics of this "near group" allow considerable variation in the actions of its participants (Yablonsky, 1959). Sheppard, Wright & Goodstadt (1985) observed that:

... all people move into and out of groups depending upon the need of the moment. Just because an adolescent is at present part of a drug-using group, does not necessarily mean he or she will remain a part of the group or always participate in the drug-taking behaviour. (p. 951)

That is certainly true. Human activity can seldom be explained in terms of simple causality. Yet the contribution of informal groups to substance use is vitally important and must be recognized in any balanced theory on the subject.

Examination of the formal peer group yields an alternative but complementary way of understanding an adolescent's choice to use substances. The formal group is manifestly pro-normative and provides a measurable basis for determining memberships and degree of participation. As such it presents

an opportunity to investigate the relationship between a context of pro-social values and a given genre of deviant behaviour.

Research Questions

1. Are self-reported rates of substance use among members of formal adolescent groups related to participation in these groups?

2. Are there differences in the incidence levels and patterns of substance use between student members of formal, school and non-school groups?

Given the documented, norm-retaining influence of formal groups and the varied outcomes of drug information strategies, knowledge about such groups may lead to an effective alternative in discouraging substance use among adolescents. Careful examination of alternative pro-normative methods is both desirable and necessary. Adolescent participation in formal school groups and in formal non-school groups should encourage conformity and norm retention, strengthening the bond between individual choice and social expectation. Should evidence supporting this assertion be obtained in this study, new insights become available for the prevention and amelioration of problems associated with substance abuse in early and late adolescence. Should frequent participation in formal groups be positively correlated with low levels of licit and illicit drug use, then educational resources need to be reviewed and

reallocated toward the provision of greater opportunities and rewards for these forms of affiliation within the school system and for those outside but importantly connected to it.

Definitions

The adolescent school groups investigated in this research consist of those meeting, at a minimum, the following characteristics of a formal sociological group:

1. The group must be positively sanctioned by the school institution with which it is identified (Johnson, 1970).
2. The group must possess a formal organizational hierarchy with prescribed roles and statuses (Yablonsky, 1959; Sherif & Sherif, 1964).
3. The group must maintain an official list of members (Yablonsky, 1959).

These groups may possess other formal, organizational characteristics such as the requirement and monitoring of regular attendance at scheduled meetings (Selnow & Crano, 1986), the presence of an adult supervisor associated with the sponsoring institution (Selnow & Crano) and a high degree of consensus on group norms (Yablonsky, 1978; Sherif & Sherif, 1964). The formal adolescent non-school groups are operationally defined to possess, at a minimum, the latter two characteristics.

Organization of the Remainder of the Study

Chapter II of this thesis presents a review of literature related to substance use with emphasis upon peer group and educational approaches to controlling substance use and abuse. Chapter III, IV and V describe the methodology, furnishes the results of the study and discusses their significance. Chapter VI summarizes the study and offers recommendations for investigating and perhaps controlling substance use in educational contexts.

CHAPTER II

Review of Literature

The Reality of Substance Use

Drug use today is pervasive. Swaim, Beauvais, Edwards and Oetting (1986) found that there were significant levels of use even among small town high school students. They concluded that such use could no longer be viewed as a singularly urban problem. While researchers have information on the levels of drug use among high school students, college students, and the general population, they have had great difficulty in determining the interrelationships between the use of alcohol, tobacco and marijuana. Dull and Williams (1981) found that the reported median age of first use of all three substances was roughly 18 but they caution us about placing the alcohol/tobacco/marijuana relationship within a causal framework. The most likely explanation, they contend, is, "that use of all three substances represents a simultaneous phenomenon attributable to youthful experimentation" (p. 138). In an eight year longitudinal study of drug use from early adolescence to young adulthood, Newcomb and Bentler (1986) found that nonuse of all substances preceded use of alcohol, which preceded cannabis use, which in turn preceded the use of a variety of hard drugs. In contrast, tobacco use patterns were more varied and not significantly associated with any particular part of this pattern of use. In addition

there was a more complex cross-influence of drug use at the earlier period, from early to late adolescence, than at the period from late adolescence to young adulthood.

Drug Education Programs

Several educators have responded to the drug use problem by implementing drug education programs. Usually these are content specific in that they provide information designed to reinforce normative behaviour with regard to substance use. The main objective of the programs is to influence adolescent attitudes to a point where such use will be modified and/or eliminated.

Information-based, drug education strategies are problematic. Pickens (1985) claims there is no definite way of producing, within young people, negative attitudes towards drug use or drug users via the giving of information. He adds that excluding information from education programs is not desirable either, since it is available from many other sources in our culture. In a study evaluating a drug education course for junior high school students (the focus was on cigarettes, alcohol and marijuana) the authors observed that, after one year of implementation, the effects of the course were limited to a specific sex and grade level, and that these dissipated within a year (Moskowitz, Schaps, Malvin & Schaeffer, 1984). Another research group claimed, "a commitment to the school and to goals set by the school are inverse-

ly related to alcohol use" but admitted that the results of their alcohol education curriculum were inconclusive (Weisheit, Hopkins, Kearney & Mauss, 1984).

Some studies acknowledge the limitations of drug education programs and call for a restructuring of the informational and professional fields to improve them (Buckalew & Daly, 1986).

Lavik (1986) distinguished between three methods of education for drug use: (a) information provision, which holds that "knowledge can influence behaviour"; (b) value clarification, which holds that "consciousness" about values can influence behaviour"; and (c) project participation, which assumes that "only real participation and responsibility can influence behaviour" (p. 50). However, his evaluation of these methods is inconclusive. The assessment of drug education programs is difficult because adequate data are often not provided. For this reason, more comprehensive and sensitive assessment instruments have recently been developed, for example, the Claydon College Drinking Questionnaire (Claydon & Johnson, 1984).

The Importance Of Informal Peer Groups

How does one account for adolescent drug use? One theory argues that child-rearing practices produce a personality that shapes attitudes toward the use of drugs (Kozicki, 1986). Drug use is seen as a way of coping with personality problems.

On the other hand, a great deal of research has emphasized group processes, especially peer influence as it is exercised through informal groups (Sarvela, Takeshita & McClendon, 1984; Tudor, Peterson & Elifson, 1980; Patel & Gordon, 1960).

There are two basic kinds of peer affiliations. In formal groups, participants meet, usually at set times, to accomplish specific objectives. An adult supervisor is often present. Second, there are ad hoc informal peer associations where participants meet, generally for enjoyment, to pursue activities which are not goal-directed (Selnow & Crano, 1986). Informal peer influence varies with age and grade level. A survey that investigated the relationship between peer influence and marijuana use across grade levels found a curvilinear pattern (Sarvela et al., 1986). There was an increase in marijuana use from the sixth to the seventh grade and then a decrease in the eighth grade. Peer pressure to use the drug was greatest in the seventh grade. In a study of the adolescent decision-making process, Lewis (1981) stated: "salient rewards may undermine consideration of risks more strongly for younger than for older adolescents ... and younger adolescents may be less able to hold in mind simultaneously the potential positive and negative consequences of a decision" (p. 538). Lewis added that adolescents' advice to their peers, i.e., mentioning the potential risks and potential future consequences of decisions, increases significantly with grade level.

These types of results are similar to earlier analyses of adolescent rule violation which supposes that adolescents "drift" into rule violation. When they become older and more aware of the social and legal ramifications of their actions on their pending adult status, their choices of behaviour are more selective and future-oriented. In a later work, Matza (1978) claimed that impending adulthood converts the possibility of public evaluation of delinquency to a probability. Clearly the influence of peer groups depends importantly on life's various stages.

Although peer groups are among the most significant influences upon adolescent behaviour, the nature of their impact is not always straightforward. For example, peer groups influence personal drinking behaviour, yet misperceptions of the drinking behaviour of one's peers may be widespread. This perception component of peer pressure is important because, "... many students may be influenced more by what they think their peers do rather than by what peers actually do" (Perkins & Berkowitz, 1986, p. 46). Such misperception may result in increased drinking for some students. "While 80% of the students indicated a moderate or relatively conservative personal attitude with regard to drinking, 63% believed the general attitude to be quite liberal" (Perkins & Berkowitz, p. 46).

The effect of peer group influence on the development of non-normat ve attitudes and behaviors among adolescents has

recently come under criticism. Sheppard and her colleagues claim that the concept of "peer pressure" should be rethought or discarded because such pressure is not pervasive and can be resisted. They note:

... it is not the group that goes after the young person, but rather that the person who wishes to experiment with or use drugs on a regular basis is more likely to seek out a drug-using group and thus be able to participate in what is normative behaviour for that group. (Sheppard et al., 1985, p. 957).

In an earlier study, Sheppard (1983) found that most of the 5000 students surveyed in three Ontario schools had not experienced pressure to use cannabis.

Instead of discarding the concept of peer group influence, we should view it as involving a bi-directional process. Peer influences can promote both pro-social and anti-social attitudes and values. Furthermore "peer pressure" can be understood as a subtle social process rather than as an overtly coercive force.

Peer Clusters

In a study of adolescent drug involvement, Oetting and Beauvais (1986b) found that "the highest positive correlations were with peer encouragement to use drugs and the highest negative correlations were with peer sanctions against using

drugs" (p. 19). After reviewing numerous theories of drug use they propose the concept of "peer cluster", to be distinguished from life style, peer group and the ambiguous notion of peer influence. Life style is a broad life pattern and peer groups represent the formal and informal groups with which a youth is associated. Peer clusters are, "smaller subset-tight, cohesive groupings" (p. 19). Examples are best friends and boyfriend-girlfriend. These basic social units form the critical contexts in which drugs are used.

The peer cluster theory elicited commentary from several educators. Peele (1986) approves of the theory but adds that the fundamental question is, "... why some children cannot find constructive involvements and instead join destructive groups" (p. 24). The education system and society in general must provide opportunities so that they find alternatives to drug use. In this way the power of the peer cluster can be reduced.

In his brief commentary on the theory, Cohen (1986) states that the pleasurable properties of drugs have been ignored. He suggests that a discussion of chemical pleasures versus self-induced or interpersonal pleasures might help the counsellor/client relationship. It would also help us understand why participation in formal adolescent groups often does not lead to decreased drug use. If the chemical pleasures experienced in the peer cluster are more attractive to youth than the interpersonal pleasures provided by school groups,

then the school must create more challenging and fulfilling student activities.

One key objection to peer cluster theory concerns the importance of broad social forces. Shaffer (1986) regards the work of Oetting and Beauvais as valuable but argues that it, "does not adequately describe the subtle, dynamic interplay between social context and individual personality, occurring longitudinally that is often responsible for determining the membership of peer clusters" (p. 26). He illustrates his view by examining changes in attitudes, since the 1960's, regarding the use of marijuana. The use of this drug, once considered deviant and counter-cultural, became increasingly widespread and a more diverse group of people and personalities constituted the using population. Such changes, states Shaffer, influence the development and characteristics of peer clusters.

Transformations in attitudes toward drug use also have significant implications for the relations between adolescents' drug use and their participation in formal groups. One would expect that in the 1960s adolescents who participated in these groups used drugs rarely, for they were part of the "straight" culture and held to its values. However, peer clusters are less deviant in this context than those in the 1960s. Adolescents today might well use, and continue to use drugs, while maintaining membership in formal, school-based groups. The cleavage between the two social realities is no

longer as great.

In a response to the commentators, Oetting and Beauvais (1986a) were eager to disavow simple determinism and argued that peer cluster theory implies that like children group together and their influence on each other then determines behaviour. The young person, "... is not an innocent victim of peer pressure but an active agent, seeking out similar peers and both seduced by and seducer of his or her friends" (pp. 29-30). There is thus no one-dimensional causality.

Educational Strategies

Educators believe that formal, school-based groups will provide creative opportunities for students and lead to a reduction in drug use. Yet, student involvement is limited. Buser and his colleagues surveyed 2000 high school students in an attempt to determine the answers to questions regarding participation in extra-class activities (Buser, Long & Tweedy, 1975). They drew several conclusions. First, the amount of student participation in extracurricular activities was fairly low, about 50%. Students replied that jobs outside school, "irrelevant activities", the scheduling of events after school, and clique domination were the main reasons they did not participate. Secondly, students succeeding in academic courses were those who participated in student activities, whereas those with low grades did not become involved. Thirdly, and perhaps most revealing, students stated that the

main reasons they participated were "fun", "personal enjoyment" and "personal achievement" (Buser et al., 1975, p. 125). The motivations for involvement outlined by educators (such as preparing to become a responsible citizen and developing skills for a vocation) were not as popular among students as were personal ones. Thus, there is a gap between personal and societal goals.

These findings have a direct impact on drug use among students. Apparently school activities do not lead to a significant change of values regarding drugs. From the societal point of view, marijuana use constitutes non-normative behaviour; however, the young have a great deal of tolerance. In one study the majority of those who have never even tried the drug (66%) felt that it was all right for others to use it. In addition only around 10% of non-users stated that they would end their friendship with users (Tec, 1972, p. 7). Tec concludes that at the level of educational practice, the solution, "... lies not so much in combatting marijuana use but rather in creating conditions which could result in more satisfaction, involvement and commitment to the educational system" (p. 7). In this way a compromise between individual and social interests may be reached.

School-based strategies for the prevention of drug abuse emphasize self-esteem, communication skills, problem-solving and improvement in other areas not ordinarily included in the traditional focus on literacy, math, social studies and

science. Other strategies include individual and group counselling and drug education programs. Drug abuse prevention is a complex set of problems. No doubt the lack of goal-oriented activity and boredom contribute heavily to drug abuse. Since youth frequently respond, "there's nothing better to do", the challenge to prevention strategies is to provide "something better". Team sports, clubs and other school activities qualify as alternatives to drugs, but additional activities are required, especially for low-achieving or alienated students.

The desire to provide "something better" is found in nearly all social attempts to deal with deviant activity. For example, the Essexfields program in New Jersey attempts to design a "social system" for delinquent adolescents which will alter deviant "street norms" and create new norms which are prosocial. The program involves a group of sixteen and seventeen-year old boys in a small rehabilitation centre and consists of a combination of work activities, group interaction sessions and recreation. The boys return to their homes in the evening and are at home during the weekend. Essexfields emphasized a peer group approach because the delinquent's activity, "... is due in large part to the internalization of a set of norms and values which are obtained from a 'subcultural' life" (Pilnick, Elias & Clapp, 1966, p. 110). The goal is to reduce conformity to delinquent, peer-determined norms and provide opportunities for

adolescents so that they transfer allegiances to a more prosocial group. Pilnick and his colleagues maintain that their method is by no means limited to the field of corrections. They remarked that with, "... a little creativity and imagination, one can easily begin to envision the implications of this approach within school systems themselves" (Pilnick et al., 1966. p. 123).

Johnson (1981) would agree. He argues that a misunderstanding of peer relationships undermines the proper goals of education. He points to three major discrepancies between educational practice and knowledge. First, the great emphasis on teacher-student interaction leads to a devaluation of student-student interaction, while it is the latter that may be the most critical factor in educational success. Secondly, competition and individualistic learning dominate most classrooms, while cooperative learning methods are more effective in promoting positive educational outcomes. Thirdly, teachers suppress conflict among students, yet spirited discussion of academic issues is of cardinal importance for student achievement and socialization. According to Johnson we need integrated peer relationships, both in classroom activities and in extracurricular activities, and that once they are realized, the use of drugs and alcohol will decline. The cooperative approach promotes more effective communications among students, greater emotional involvement in and commitment to learning, more peer pressure towards

achievement, and more positive attitudes toward educators (Johnson, 1981, p. 7).

Given these conflicts in North American education some theorists have turned to the Soviet approach to education which emphasizes the peer collective (under adult leadership), competition between groups, group basis for rewards and punishments, and group criticism in achieving behaviour norms (Bronfenbrenner, 1962). The peer group becomes the principal agent of socialization and is used to generate pro-social values. Bronfenbrenner contends that we must expand our notion of moral development beyond the, "... Judeo-Christian concern with personal responsibility and guilt to a consideration of the broader moral issues inherent in the relation of man to man and of the individual to his society" (Bronfenbrenner, p. 58).

Formal Group Influences

There has been little emphasis placed upon the norm-retaining peer influences within the formal group although existing literature points out its importance. Involvement in this kind of group, "... results in the development of norms, through which a specific set of behaviors comes to be expected of specific group members" (Crano & Masse, 1982, p. 392). If a group satisfies a person's needs at a specific time, then that person will maintain participation in the group (Stone, Miranna & Ellis, 1979). Furthermore the more enduring and

substantial the participation in a formal group, the greater the likelihood the individual's behaviour will be influenced by the group (Evans & Jarvis, 1986). In this way involvement in structured groups has been shown to increase a participant's capacity to resist social pressures to engage in non-normative conduct (Selnow & Crano, 1986; Tec, 1972; Oetting & Beauvais, 1986a; Johnson, 1980).

What relationship exists between adolescent use of substances and their membership in formal groups? In a study of 760 high school students between the ages of 13 and 17 years, Selnow and Crano (1986) confirmed the view that adolescents who are more likely to engage in ad hoc group participation with peers are also more likely to be users of alcohol and drugs and that adolescent membership in formal, organized groups is associated with a reduced use of alcohol and drugs. They conclude that structured, goal-oriented peer activities may lead to reduced substance abuse.

A similar relationship was obtained with regard to the use of marijuana. Tec (1972) confirmed two hypotheses in a study of 1704 teenage boys and girls. First, as satisfaction with various aspects of high school status decreases, the likelihood of marijuana use increases. Secondly, the greater the value attached to the student's status, the less the likelihood to use the drug. Much the same can be said of tobacco use. Windsor (1972) attempted to determine how much success the 4-H youth organization had in instilling in the

younger 4-H youth positive health practices with regard to smoking. Of the 498 youth surveyed, roughly 5% were smokers. Most of the younger 4-H youth were practicing and intended to continue practicing good health behaviour in which the use of tobacco was absent.

These studies provide renewed support for the control theorists who suggest that the more committed the adolescent is to conventional lines of action (e.g., success in school, athletic achievement), the less likely he or she is to engage in rule-violating behaviour (Hirschi, 1978; Reckless, 1978; Briar & Piliavin, 1978). The absence of memberships, affiliations and normative peer group influences lead to non-conformity.

Self-Concept

The relationship between self-concept, school involvement and substance use has been addressed in the literature. Slutske (1981) found that there was no difference between level of alcohol use and self-concept score. In addition, an analysis of variance yielded no differences in the level of alcohol use and the amount of student participation in extracurricular activities. Tax (1983) concludes from her study of cigarette smoking in adolescent females that non-smokers had significantly higher self-esteem levels than did smokers, but there was no significant difference in extracurricular participation between the two groups. Both smokers

and non-smokers had a high level of participation in these activities, with the non-smokers having somewhat greater levels of participation in team athletics.

Leonardson (1986) and Stevens (1981) found that extracurricular activity and self-concept scores were positively correlated. Leonardson's study of 165 students indicated that those who were actively involved in school activities tended to have higher self-concept scores. The more active adolescents are in school organizations, the more positive their self-concept. When self-concept scores are high, self-reported drug use is low.

CHAPTER III

Methodology

Subjects and Procedures

A total of 296 adolescent, high school students (138 males and 158 females) attending a rural, Newfoundland, integrated high school participated in this study. Their ages ranged from 13 to 18 years and their grades ranged from 8 to 9 for (junior high students) and 10 to 12 (senior high students). The legal age for the purchase and consumption of alcohol is 19; for tobacco it is 16. The use of marijuana is, of course, illegal.

The research was undertaken through self-administered questionnaires given under teacher-supervised conditions. Students were told that their responses would be treated with complete confidentiality and were asked very explicitly not to write their names on the survey.

The study is limited by two factors. First, while the survey design relating to self-reported rates of substance use was taken, with minor variations, from Selnow and Crano (1986), other questions are purpose-designed, having been reviewed by a panel of judges. Second, the survey was administered in only one rural, integrated high school (N=296); thereby, limiting the generalizability to rural, integrated schools.

Instrumentation

Measure of substance use.

Major elements of the survey relating to self-reported rates of substance use were taken, with minor variations, from Selnow and Crano (1986), while other questions are purpose-designed, having been reviewed by a panel of judges. This panel was formulated by a qualified Guidance Counsellor at a St. John's Junior High School and consisted of the Guidance Counsellor, a fifth-year Education student and eight high school students. The question and answer categories used to obtain data on tobacco, alcohol and marijuana usage are given below.

1. Which of the following best describes how often you smoke cigarettes? (Select only one answer)

- (a) I've never smoked cigarettes.
- (b) I've tried cigarettes but don't use them any more.
- (c) I smoke cigarettes a few times a month.
- (d) I smoke cigarettes a few times a week.
- (e) I smoke cigarettes just about every day.

2. Which of the following best describes how often you drink alcohol (beer, wine, liquor)? (Select only one answer)

- (a) I've never had a drink.
- (b) I've had a few drinks (1-4) but don't drink any more.
- (c) I have 1-2 drinks a month.
- (d) I have 1-2 drinks a week.

(e) I have a drink almost every day.

3. Which of the following best describes how often you smoke marijuana? (Select only one answer)

- (a) I've never smoked marijuana.
- (b) I've tried marijuana but don't use it any more.
- (c) I smoke marijuana a few times a month.
- (d) I smoke marijuana a few times a week.
- (e) I smoke marijuana just about every day.

The first two categories are collapsed into a non-using category (0). The three remaining response levels denote (1) some use, (2) much use, and (3) heavy use.

Membership in school groups and non-school groups.

In order to determine participation in school group activity, students were asked to estimate their attendance at the meetings and functions of those groups available at their school by checking the appropriate category indicating the percentage of group involvement. These groups included:

- 1. Student Council
- 2. Red Cross Youth
- 3. Cadets (Sea, etc.)
- 4. 4-H Club
- 5. Computer Club
- 6. Drama Club
- 7. Other (various sports, e.g., volleyball)

Students were also asked about their membership in non-school groups. These groups included:

1. Salvation Army Cadets
2. Church Choir
3. Church Youth Group
4. Sunday School
5. Scouts
6. Sports

The lists above specify the two dimensions of potential student activity, that is, in school and out of school.

Activity Index

An activity index was established by assigning a numerical value, from 0 to 3, to the percentage of meetings and activities engaged in by the individual for each group (0% = 0, 1-33% = 1, 34-66% = 2, and 67-100% = 3). For example, an individual who participates in 25% of Student Council functions is assigned a rating of 1. If the same individual is involved in 80% of Red Cross Youth activities he is given a rating of 3, while participation in 50% of the Drama Club receives a rating of 2. This individual's total activity is, thus, 6. In determining a total activity index for school groups, numerical values of 0, 1 to 4, and 5 to 8 were collapsed into indices corresponding to 0, 1 and 2, where 0 = no activity, 1 = some activity and 2 = much activity. The individual in the example above would have a total activity

index rating of 2. For non-school group activity, numerical values of 0, 1 to 4, and 5 to 12 were similarly collapsed. A grand total activity index for all group involvement was also established where numerical values of 0, 1 to 4, and 5 to 15 were collapsed.

CHAPTER IV

Results

A summary of the students' self-reported substance use is presented in Table 1. These data reveal that 151 students or (51%) drink, (57% males, 46% females), 79 or (27%) smoke, (28% males, 26% females), and 10 or (3.4%) use marijuana, (4% males, 3% females).

Table 1

Substance Use By Sex

Substance	Sex				Total	
	Male		Female			
	No.	%	No.	%	No.	%
Tobacco	38	28	41	26	79	27
Alcohol	79	57	72	46	151	51
Marijuana	6	4	4	3	10	3.4

Analysis of the levels of student involvement in school groups demonstrates that 186 (62.8%) are not active, 82 (27.7%) have some activity, and 28 (9.5%) have much activity. Levels of involvement in outside groups are 191 (64.5%), not active, 83 (28%), some activity, and 22 (7.4%) with much

activity. For the combined activity index - school groups plus outside groups - the figures are 135 (45.6%), not active, 91 (30.7%), some activity, and 70 (23.6%) have much activity. Mean substance use and mean activity levels for the 296 subjects in this study are presented in Table 2.

Table 2

Means and Standard Deviations for Substance Use and Group Activity Indexes

	n	M	SD
Tobacco	79	.66	1.16
Alcohol	151	.77	.86
Marijuana	10	.05	.31
School Group Activity	110	.47	.66
Outside Group Activity	105	.43	.63
Group Activity Combined	161	.78	.80

Let us consider the relationship between tobacco use and the total activity index for school groups. An analysis of variance performed on the index yielded significant main effects ($F = 3.490$, $p < .05$) (Table 3).

Table 3

Summary of Analysis of Variance of Tobacco Use By School Group Activity

Source	SS	df	MS	F	p
<hr/>					
Between	9.2794	2	4.6397	3.4895	.0318
Within	389.5720	293	1.3296		

A Student-Newman-Keuls multiple comparison procedure of the means reveals that reported tobacco use statistics for the two groups, no activity ($M = .74$) and some activity ($M = .38$), are decidedly different (Table 4). With regard to the no-activity group, subjects reporting the least amount of involvement reported high tobacco use. Secondly, students having the greatest amount of activity reported the highest tobacco use of all ($M = .89$), although the interaction of this factor with the other two activity factors was not significant.

What is the relationship between tobacco use and the total activity index for non-school groups? (Table 5). Again, significant main effects were found ($F = 3.454$, $p < .05$).

Table 4
Means and Standard Deviations for Substance Use By Activity Levels - School Groups

Activity Level	n	<u>Substance</u>		
		Tobacco	Alcohol	Marijuana
Non-Active (0)	186			
<u>M</u>		.74*	.79	.08
<u>SD</u>		1.23	.88	.39
Least Active (1)	82			
<u>M</u>		.38*	.71	.0
<u>SD</u>		.92	.81	.0
Most Active (2)	28			
<u>M</u>		.89	.86	.04
<u>SD</u>		1.26	.93	.19

*Significant at the .05 level

Table 5
Summary of Analysis of Variance of Tobacco Use By Outside Group Activity

Source	SS	df	MS	F	p
Between	9.1864	2	4.5932	3.4538	.0329
Within	389.6649	293	1.3299		

In comparing the mean self-reported tobacco use scores of subjects, the Student-Newman-Keuls procedure revealed that the very active students, (\bar{M} = .05) used significantly less tobacco than do either those who engaged in some activity, (\bar{M} = .65) or those in the non-active category, (\bar{M} = .73) (Table 6).

Table 6

Means and Standard Deviations for Substance Use By Activity Levels - Outside Groups

Activity Level	n	Substance		
		Tobacco	Alcohol	Marijuana
Non-Active (0)	191			
<u>M</u>		.73*	.86*	.07
<u>SD</u>		1.23	.89	.38
Least Active (1)	83			
<u>M</u>		.65#	.74#	.02
<u>SD</u>		1.12	.83	.15
Most Active (2)	22			
<u>M</u>		.05*#	.14*#	.0
<u>SD</u>		.21	.35	.0

*Significant at the .05 level

#Significant at the .05 level

With regard to tobacco use and the total activity index for both groups combined (Table 7), significant main effects were found ($F = 4.485$, $p < .05$).

Table 7

Summary of Analysis of Variance of Tobacco Use By Outside Group Activity Plus School Activity Combined

Source	SS	df	MS	F	p
Between	11.8481	2	5.9240	4.4851	.0121
Within	387.0033	293	1.3208		

The Student-Newman-Keuls procedure demonstrates that reported mean tobacco use for those having some activity, ($M = .42$) is significantly less than that of those reporting no-activity, ($M = .87$). No significant difference in use was found between those reporting most activity ($M = .56$) and the other two factors (Table 8).

For alcohol use and student participation in school groups no two factors are significantly different at the .05 level (Table 9).

Table 8

Means and Standard Deviations for Substance Use By Activity Levels - School and Outside Groups Combined

Activity Level	n	<u>Substance</u>		
		Tobacco	Alcohol	Marijuana
Non-Active (0)	135			
<u>M</u>		.87*	.87	.10
<u>SD</u>		1.30	.91	.45
Least Active (1)	91			
<u>M</u>		.42*	.73	.01
<u>SD</u>		.98	.82	.10
Most Active (2)	70			
<u>M</u>		.56	.64	.01
<u>SD</u>		1.04	.82	.12

*Significant at the .05 level

Table 9

Summary of Analysis of Variance of Alcohol Use By School Group Activity

Source	SS	df	MS	F	p
Between	.6077	2	.3038	.4061	.6666
Within	219.2268	293	.7482		

However, this is not the case with alcohol use and the total activity index for involvement in non-school groups ($F = 7.432$, $p < .01$) (See Table 10).

Table 10

Summary of Analysis of Variance of Alcohol Use By Outside Group Activity

Source	SS	df	MS	F	p
Between	10.6141	2	5.3071	7.4322	.0007
Within	209.2203	293	.7141		

A multiple comparison procedure of the data shows that the mean use for both the non-active students ($M = .86$) and those engaging in some activity ($M = .74$) are significantly different in use from the group which is very active ($M = .14$) (Table 6). A significant interaction effect was also noted for alcohol use, non-school group activity and grade ($F = 5.198$, $p < .01$) (Table 11).

Main effects are noted with regard to junior student alcohol use and the total activity index for non-school groups ($F = 6.295$, $p < .01$) (Table 12).

Table 11

Summary of Analysis of Variance of Alcohol Use By Outside Group Activity and Grade

Source	SS	df	MS	F	p
Between	11.1450	3	3.7150	5.1980	.0020
Within	208.6600	292	.7150		

Table 12

Summary of Analysis of Variance of Alcohol Use By Outside Group Activity (Junior High Only)

Source	SS	df	MS	F	p
Between	9.6337	2	4.8169	6.2954	.0020
Within	116.3017	152	.7650		

A Student-Newman-Keuls procedure reveals that those students who engage in some activity ($\bar{M} = .51$) and those who are very active ($\bar{M} = .19$), are significantly different from those who are not active ($\bar{M} = .90$) (Table 13).

For senior students, the main effects are ($F = 4.370$, $p < .05$) (Table 14).

Table 13

Means and Standard Deviations for Alcohol Use By Activity Levels - School Groups (Junior/Senior High)

Activity Level	n	Grade Level	
		Junior	Senior
Non-Active (0)	92		
M		.90*#	.83*
SD		.98	.80
Least Active (1)	47		
M		.51*	1.03#
SD		.75	.84
Most Active (2)	16		
M		.19#	.0*#
SD		.40	.0

*Significant at the .05 level

#Significant at the .05 level

Table 14

Summary of Analysis of Variance of Alcohol Use By Outside Group Activity (Senior High Only)

Source	SS	df	MS	F	p
Between	5.5143	2	2.7572	4.3708	.0140
Within	87.0530	138	.6308		

The Student-Newman-Keuls procedure demonstrates that both the non-active group ($M = .83$) and the group having some activity ($M = 1.03$) are significantly different from the very active one ($M = .00$) (See Table 13).

No significance was found between marijuana use and participation in any formal group whether school based or otherwise. (See Tables 15 and 16). Only 3.4% of the students surveyed reported using marijuana.

Table 15

Summary of Analysis of Variance of Marijuana Use By School Group Activity

Source	SS	df	MS	F	p
Between	.3805	2	.1903	1.9387	.1457
Within	28.7546	293	.0981		

Table 16

Summary of Analysis of Variance of Marijuana Use By Outside Group Activity

Source	SS	df	MS	F	p
Between	.2095	2	.1048	1.0611	.3474
Within	28.9256	293	.0987		

CHAPTER V

Discussion

In Chapter I, research questions were proposed which asked whether substance use varied with student participation in formal adolescent groups and whether one of the two groups (school or non-school) had more effect on substance use than did the other. Let us first turn to the findings on alcohol. One study found that a commitment to school activities is inversely related to alcohol use (Weisheit et al., 1984). The present study neither supports nor refutes this conclusion; the relationship between usage and participation in school groups is unclear. The present results are in line with Slavik (1981) who found, in his survey of 167 high school students in a rural setting, that analysis of variance yielded no significant differences in the level of alcohol use and the amount of participation in extracurricular activities.

The present study did find a decrease in alcohol use in reference to student participation in non-school groups. Participation in the activities of these groups is correlated with little use of alcohol, whereas no or little involvement is correlated with high use. Generally the greater the involvement the less the use of alcohol.

Selnow and Crano (1986) demonstrated that membership in formal groups is associated with reduced use of alcohol and drugs. This study's findings indicate that substance use

depends importantly on the kind of formal group, the amount of involvement, and the particular substance in question. With regard to tobacco, a modest level of involvement (in both types of formal groups) is correlated with a decrease in usage. For both, those students engaging in some activity use lesser amounts of tobacco than do the least active. This lends partial support to the view that involvement in formal groups is correlated with decreased use. For non-school groups, as involvement increases smoking decreases; high involvement corresponds to very little tobacco use. Thus, for this type of group there is the same correlation for tobacco use that was found for alcohol use.

However for school groups the relationship is not so straightforward. A somewhat unexpected result was that the most active students in school groups used the most tobacco of all three levels of participation. This finding constitutes an important exception to the theory that membership in formal groups correlates with reduced substance use. Researchers have posited different relationships between participation in school groups and tobacco use. For example Windsor (1972) states that the 4-H organization enjoyed good success in reducing tobacco consumption while Tax (1983) observed no significant difference in extracurricular participation between smoking and non-smoking females, other than for those engaged in athletic pursuits.

Cohen (1986) places emphasis on assessing, "... chemical

pleasures versus self-induced or interpersonal pleasures" (p. 25). Given the low amount of student participation in the two kinds of formal groups (nearly 50%), it appears that pleasures derived from substance use within informal peer groups represent a considerable attraction for students which competes with the pleasures offered from involvement in formal groups. But many students do not perceive a conflict here, as far as tobacco is concerned. Since the most active students in school groups use the most tobacco of all, then clearly students enjoy both the participation in school activities and the pleasure of smoking cigarettes. Buser, Long and Tweedy (1975) found that students become involved in school groups primarily for fun, enjoyment and personal achievement. Apparently tobacco use does not interfere with these goals. Leonardson (1986) found that the more active students were in school groups, the more positive the self-concept and the lower the drug use. The last element of this equation, however, does not apply to tobacco use.

We noted in Chapter II that broad social attitudes toward substance use may vary considerably over time so that what is regarded as deviant and unacceptable may become more acceptable. Thus, adolescents today use substances while maintaining membership in school groups. The correlation between high involvement and high tobacco usage indicates that smoking cigarettes is an acceptable practice; students see no moral inconsistency here. Within the school setting itself, there

is no ongoing program to reduce or eliminate tobacco use, a contrast with non-school groups which have an active anti-smoking ethic.

Which of the two groups (school and non-school) has more impact on substance use? The non-school groups promote norm retention more effectively than do the school groups. This is not surprising. Many of the non-school groups are intimately connected to religious institutions whose norms include sanctions against substance use. As such, the pressure to internalize specific roles and obey rules is strong. While the school and school groups attempt to counteract substance use, unlike the informal peer groups which often encourage it, they are not as effective in discouraging smoking, drinking and drug-taking as are the non-school organizations.

Some remarks on this study's findings regarding marijuana use are now required. The Addiction Research Foundation found, in its survey of 1988, that 30% of high school students in British Columbia used marijuana at least once in the year studied. Sarvela, Takeshita and McClendon (1986) noted that 46% of American high school youth use marijuana annually. This study's questionnaire was not designed to measure annual use. However, the findings conflict with those of other researchers who have studied the regular use of this substance. They present significantly higher rates. For example, Tec (1972) found that there were 12% regular users in a survey of 1704 suburban high school students, and Kozicki

(1986) claimed that one out of six American youngsters (over 16%), age 12 through 17 years, use marijuana regularly.

One can only speculate as to the reasons for the difference in usage between Newfoundland students and those elsewhere. Perhaps greater urbanization and sub-urbanization partially explains why usage is higher in British Columbia and America than in Newfoundland. Yet at the same time, marijuana use reaches significant levels among small town high school students in general (Swaim et al., 1986). Again, perhaps students in a small Newfoundland town are less willing to reveal their actual practices than are their counterparts in large towns and cities, no matter what kind of research instrument is employed.

Students' perceptions of their fellow students' attitudes and actions may play a role. In their study of student drinking behaviour, Perkins and Berkowitz (1986) explain that many students may be influenced more by what they think their peers do rather than by what they actually do and that this perception may influence their drinking habits. If they think their peers drink a lot, they may increase their own drinking. Presumably this influence also works the other way. Student perception of a low level of marijuana use among their peers may lead to reduced use for some students and/or a lower level of reported usage.

The reporting of marijuana use may also be affected by other factors. The issue of legality seems important. It is

likely that students will be more forthright about their use of tobacco, a legal substance, than with an illegal drug. Recent advertising campaigns, with their shock-oriented simplifications about what "drugs" do to the brain (as if all drugs have the same effects), may lead to either low usage or low reported usage, or both. Furthermore, although alcohol is illegal, students may have less hesitation in reporting their consumption of a few beers every month or week than stating their drug intake.

In any case, it is doubtful whether the apparently low marijuana usage found in the present study is due to the achievements of drug information strategies (whose effects are unclear) or other facilities provided by our educational institutions.

CHAPTER VI

Conclusions

Summary

This study investigated the relationship between high school student participation in formal school and non-school groups and self-reported substance use. Student participation in the non-school groups was associated with a decrease in alcohol use, but no significant correlation was found between participation in school groups and the use of this substance.

Substance use depends on the kind of formal group, the particular activity level of the student, and the specific substance concerned. With regard to tobacco, a modest level of involvement (in both school and non-school groups) is correlated with a lower usage rate than is that of the least active students. These contexts of usage support the view that involvement in formal groups is correlated with a decrease in use. In addition, for non-school groups, as involvement increases smoking decreases. This is the same correlation that was established for alcohol use. However, the most active students in school groups use more tobacco than do those exhibiting either low or moderate levels of group participation. This phenomenon constitutes an important exception to the theory that membership in formal groups correlates negatively with substance use.

The non-school groups promote norm retention more

successfully than do the school groups. The former organizations generally employ norms which include proscriptions against the use of substances, while the latter are not as effective in discouraging substance use.

Implications

About 50% of the students surveyed in the present study engaged in no formal group activity at all, a figure consistent with other researchers' findings. Clearly, a more comprehensive sense of student indifference and alienation is required. Although students frequently complain that clique domination, bad scheduling and various commitments prevent their participation in extracurricular activities, these reasons seem superficial when compared to the fundamental problems.

Peele (1986) wondered why some students could not find "constructive involvements" and joined destructive groups. Of course, counteracting the influences of the peer cluster and the pleasures it offers continues to represent a great challenge to the school and school-related institutions. Opportunities must be provided so that students find alternatives to substance use. Since many students gain more satisfaction from alcohol, drugs and tobacco than from formal groups, we must create conditions conducive to greater involvement in the educational process.

Greater activity as such is not the answer. The adage,

"an idle mind is the devil's workshop" is only partially true. One dilemma is that a high level of participation in formal school groups is correlated with high tobacco use. Should we regard cigarette smoking as a "necessary evil", given the other beneficial aspects of these groups? Should more emphasis be placed on the non-school groups? Clearly these groups are more effective in encouraging the individual to conform, in committing him/her to norm retention and in discouraging substance use. If a central goal of education remains the reduction of substance use, then more emphasis might have to be placed on student involvement in non-school groups. Perhaps we have come to expect too much from the school itself.

Whatever the specific difficulties involved, the talents of a broader portion of the student population must be mobilized. Usually it is students succeeding in academic courses who participate in extracurricular school activities, whereas those with low grades do not. Educational decision-making must acknowledge methods to increase greater involvement. Among Johnson's proposals for a revitalized education process (see Chapter II) is that of integrated peer relationships in classroom and in extracurricular activities. We begin with more student-student interaction in the classroom and systematically cultivate group values for the entire educational network.

The fact that students today participate in school group

activity largely for personal enjoyment and personal achievement reflects fundamental values in contemporary society. Despite the positive aspects of this environment, there are dangers inherent in an educational philosophy based on such values. They have not gone unnoticed. Bronfenbrenner (1962) claims that individualism should be de-emphasized and he advocates the importance of a group concept of educational achievement. He proposes that reward and punishment in the school context should be assigned on a group basis. Such an approach might reduce student apathy and nurture pride in learning accomplishment. Similarly the Essexfields program, in the field of corrections, is based on a peer group approach to delinquent behaviour (see Chapter II) and it successfully combines work projects, group sessions and recreation in order to bring about pro-normative attitudes. Although this concept may be too "total" and the subjects more "deviant" to be directly applicable to the high school context, it underlines the importance of a collective perspective on social problem-solving.

Recommendations for Future Research

The following is a list of suggestions for future research on student activity and substance use.

1. The study should be repeated in the context of a large high school in a Canadian city so that a comparative perspective might be obtained.

2. The survey should be undertaken for a rural, co-educational school of the Roman Catholic denomination. The moral dimension of education, which was notable in non-school groups but less pervasive in the school itself, is likely stronger in the Roman Catholic school environment than in the integrated system and it may involve different correlations between student involvement and substance use.

3. A study should focus on causal relations between participation in formal groups and substance use. It is essential to ascertain whether formal groups consolidate the pre-existent values and life style of the nonuser or whether they effect changes in them so that the student moves from anti-normative to pro-normative activity.

4. Because so much of the literature on adolescent behaviour in reference to school performance focuses on the subject of drugs, alcohol and tobacco, and their negative effects, we lack an understanding of the broader radius of youth culture and peer group interactions. We, therefore, must consider other, equally important components of students' life styles. For example, given the fact that young men and women spend much time listening to rock music (often in the context of substance use), a survey of the correlation between substance use and rock music would help complete our knowledge of informal peer group interactions and their implications for school involvement. Rock seems especially important, for much of its reputation rests upon its celebration of substance use

and its anti-authoritarian values, whether these involve school, religion or family.

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APPENDIX A

The Instrument

Dear Student,

This survey is part of a Memorial University study of tobacco, alcohol and marijuana use by High School Students in Newfoundland. All answers provided will be treated with **complete confidentiality**. Please make sure that you do not write your name on this survey.

To make certain that this study is accurate, please try to answer all of the questions as accurately and honestly as you can. If you are interested, you can obtain the results of this study when the research is completed.

THANK YOU FOR YOUR HELP

PART ONE

PLEASE ANSWER THE FOLLOWING QUESTIONS?

1. How old are you? _____ years.
2. Are you male or female? _____
3. What grade are you in at school? _____

PART TWO

4. Which of the following best describes how often you smoke cigarettes? (Select only **one** answer)

- _____ I've never smoked cigarettes
- _____ I've tried cigarettes but don't use them any more
- _____ I smoke cigarettes a few times a month
- _____ I smoke cigarettes a few times a week
- _____ I smoke cigarettes just about every day

5. Which of the following best describes how often you drink alcohol (beer, wine, liquor)? (Select only **one** answer)

☐ I've never had a drink

☐ I've had a few drinks (1-4) but don't drink any more

☐ I have 1-2 drinks a month

☐ I have 1-2 drinks a week

☐ I have a drink almost every day

6. Which of the following best describes how often you smoke marijuana? (Select only **one** answer)

☐ I've never smoked marijuana

☐ I've tried marijuana but don't use it any more

☐ I smoke marijuana a few times a month

☐ I smoke marijuana a few times a week

☐ I smoke marijuana just about every day

PART THREE

7. Place an "x" next to the name of each group which is available at your school.

- _____ 1. Student Council
- _____ 2. Red Cross Youth
- _____ 3. Cadets (Sea, Air etc.)
- _____ 4. 4 H Club
- _____ 5. Computer Club
- _____ 6. Drama Club
- _____ 7. other, please give name _____
- _____ 8. other, please give name _____
- _____ 9. other, please give name _____

8. On the chart provided indicate your participation in each group.

(Please estimate the percentage of each group's meetings and activities that you have attended during the past school year by making an "X" in the appropriate percentage column.

Group	Percentage of Meetings and Activities Attended			
	(0%)	(1-33%)	(34-66%)	(67-100%)
Example:				
Teachers' Union	X			
1. Student Council				
2. Red Cross Youth				
3. Cadets (Sea, etc)				
4. 4H Club				
5. Computer Club				
6. Drama Club				
7.				
8.				
9.				

9. On the chart below, please write in the spaces on the left the names of each of the clubs or groups you belong to that are not school clubs or groups. In the boxes on the right side of the chart, please estimate the percentage of each of these group's meetings and activities that you have attended during the last year.

	Percentage of Meetings and Activities Attended			
	(0%)	(1-33%)	(34-66%)	(67-100%)
<u>Non-School Group</u>				
Example:				
Church Youth			X	
1.				
2.				
3.				
4.				
5.				

THANK YOU FOR YOUR HELP



