

AN ANALYSIS OF THE RELATIONSHIP BETWEEN
SCHOOL BONDING AND DRUG USE AMONG HIGH SCHOOL
STUDENTS

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ABSTRACT

This study examined the relationship between social bonding indicators and drug use among grade eight to twelve students, drawing from attachment and involvement dimensions of Hirschi's Social Bonding Theory for the conceptual framework. Data was utilized from the Safe School Social Responsibility Survey for Secondary Students (SSRS) for the 2005/06 and 2006/07 school years to understand the extent to which school bonding, a measure of attachment to school and involvement at school, was associated to current and future drug use. 'Attachment to school' indicators included perceptions of students' liking for school, feeling respected from adults at school, and feeling their ideas were important to adults at school. 'Involvement at school' indicators included self-reported rates of students' participation in groups or clubs at school, and non-participating behaviours involving skipping class, and skipping an entire day of school. This study provides important evidence, as well as practical indicators, to support the proposition that school bonding is associated to, and predictive of, current and future drug use.

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CHAPTER 1: INTRODUCTION

Drug use among youth can lead to serious consequences affecting health and educational outcomes. It leads to increased costs in healthcare from hospitalizations, shortens lifespan, and contributes to more than 21% of all deaths when considering the general Canadian population fifteen years and older (Rehm, Ballunas, Brochu, Fischer et al. 2006; cited in Canadian Centre on Substance Abuse, 2007b). Though substance use is associated to a variety of problems regardless of age, adolescents are at particular risk since “young people tend to use substances more often and in riskier ways than older people” (CCSA, 2007c). Canadian youth, as compared to youth from other countries, appear to be at even greater risk for harm due to heightened exposure to substance use (Adlaf & Racine, 2005; Currie, Roberts, Morgan et al., 2004). Figures indicate that 60% of all illicit drug users are between fifteen to twenty four years of age (CCSA, 2007a). In response to the seriousness of this problem, the Canadian Centre on Substance Abuse (CCSA) is currently leading a national strategy to reduce the prevalence of illicit drug use among youth, with a focus on addressing risk and protective factors associated to drug use (CCSA, 2007a).

Health and Educational Harms Associated to Drug Use

The harms associated with licit and illicit drug use are numerous and may result in damage to self, others, and property. Certain consequences are immediate, while others have long-term impacts on physical, psychological, and social health that may not be

initially evident (Gottfredson & Hirschi, 1990; Robertson, David & Rao, 2003; United Nations, 2005). Oral or injection use is linked to over-doses and the spread of viruses, and in particular, alcohol ingestion is linked to accident rates from drunk driving, falling, or other similar outcomes (Health Canada, 2001). The long-term use of alcohol contributes to liver disease, cancer, heart disease, brain damage, and dependency, while chronic use of alcohol impedes healthy brain development, cognitive processing, memory, and poor health, including weight gain (Health Canada, 2001). Smoking results in a greater likelihood of developing respiratory problems and disease, cancer, and heart disease (Health Canada, 2001).

High rates of drug use among youth have become a central area of concern for educators as well (Zyngier, 2003). Substance use leads to problems in school, including poorer learning outcomes, lower academic aspirations, and premature school leaving (Hall, Doran, Degenhardt & Shepard, 2006). School counsellors and psychologists have identified substance use being linked to major mental health problems among youth in schools (Romer & McIntosh, 2005; in LaRusso, Romer & Selman, 2007), and a small but noteworthy proportion of criminal careers (eg. vandalism, theft, burglary) begin during the school years from activities associated with drug use (Akers & Lee, 1999; Roberts et al. 2001).

Problematic Drug Use

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (2000) distinguishes substance abuse from use. Substance abuse goes beyond experimentation or recreational use to become problematic when a maladaptive pattern results in impairment or distress over the course of a year. Maladaptive behaviour exists when it interferes with

a major obligation, such as school (eg. poor performance, suspensions, or expulsions); is physically dangerous to do so (eg. driving a car; recurrent involvement with the legal system for substance-related behaviour); and, leads to recurring personal, interpersonal, or other social problems (Centre for Addiction and Mental Health, 2007). Of youth who report substance use, only a portion (3-16%) meet the criteria for DSM diagnoses of substance use disorders, varying by age, gender, and type of substance used. The highest rates occur for older youth, among males, and with those who have marijuana and alcohol-related disorders (Weinberg, Rahdert, Colliver et al. 1998; cited in Weiner, Abraham & Lyons, 2001).

From a legal perspective, a further distinction concerning drug use is made between illicit and licit drugs. Illicit drugs refer to banned substances as identified in international drug control agreements (Hall, Doran, Degenhardt & Shepherd, 2006). This includes, for example, cannabis (e.g. marijuana, hashish), stimulants (e.g. cocaine, methamphetamine), dance-party drugs (e.g. ecstasy, MDMA), opiates (e.g. heroin, opium), and pharmaceutical opiates (e.g. methadone, morphine). Licit drugs, by comparison, are those that are legally obtainable, and include, for example, alcohol and cigarettes. However, their legal purchase and distribution is accompanied by regulations that restrict their use by youth. Despite regulations in Canada, survey research involving Canadian youth fifteen to nineteen years of age identified that twenty percent of adolescent drinkers had reported at least one harm resulting from an incident of a physical, social or legal nature. This compared to 30% of youth who reported similar forms of injury from illicit drug use (ter Bogt, Schmid, Gabhainn, Fotious et al., 2006; in CCSA, 2007b).

Not only is the use of drugs illegal by minors, but the dangers associated to substance use experimentation in childhood and adolescence can result in immediate and long term impairment. Early experimentation with alcohol has shown to be a robust predictor of alcohol abuse and dependence later in life. Figures indicate that 40% of adolescents who started drinking at fourteen years of age or less had eventual alcohol dependence, whereas only 10% did so when reporting that their drinking began after age twenty (Dawson, 1997; in Health Canada, 2001). While experimentation and asserting independence is part of normal human development (Canadian Health Network, 2007), risk-taking through exposure to, and early initiation of, alcohol and drug use can compromise healthy growth and development (Health Canada, 2001).

Adolescence

Adolescence is a developmental period characterized by rapid changes in the physical, psychological, and social facets of a young persons' life (CCSA, 2007b; Simons-Morton, Crump, Haynie & Saylor, 1999). This period of life sets the stage on which life-long skills and behavioural patterns are established. In addition to the considerable tension and financial burden for families affected by their child's involvement with drugs and alcohol (CCSA, 2007b), substance use contributes to developmental problems. It impedes healthy transitions by increasing chances that children will leave home early, drop out of school, or face parenting responsibilities at a young age (Krohn, Lizotte & Perez, 1997). School counsellors and psychologists have identified that substance use is linked to major mental health problems (Romer & McIntosh, 2005; in LaRusso, Romer & Selman, 2007). A small but noteworthy proportion of criminal careers begin during the school years from increased exposure to

negative peer influences associated to drug involvement (e.g. vandalism, theft, burglary) (Akers & Lee, 1999; Health Canada, 2001). The younger the age of onset of drug use, the greater the chance for developing serious problems over time (Hawkins, Arthur & Catalano, 1995; Jarvinen & Gundelach, 2007; McCrystal, Percy & Higgins, 2007; Mosher, Rotolo, Phillips, Krupski & Stark, 2004). There is a need to prevent youth from spiralling into positions of disadvantage from the harmful effects of early and on-going contact with drugs and alcohol (CCSA, 2007a).

Some youth, however, believe drug use is 'beneficial'. They maintain that it enhances mood, offers relief from pain, provides an outlet for asserting independence, allows them to engage in a pleasurable or novel act, satisfies curiosity, and helps them gain entry into a social group (CCSA, 2007b; Department of Social and Economic Affairs, 2005; Health Canada, 2001; Hunt, Evans & Kares, 2007; Robertson, David & Rao, 2003). It is important to acknowledge the underlying conditions and motivations that lead to experimentation with drugs in order to understand how society can best support healthy child and adolescent development (Health Canada, 2001).

School Connectedness

Research has identified that students' connectedness to school is one of the greatest protective factors against polydrug use, absenteeism, pregnancy, and unintentional injury, even after taking family influences into account (Bonnie, Britto, Klostermann et al. 2000). School connectedness has also been identified as a foundational element linked to the successful transfer of pro-social attitudes, norms, and values among youth (Larson, 2000). However, scholars have also noted a form of toxicity in schools referred to as "a contagious youth culture of academic negativism and misconduct"

(Simons-Morton et al. 1999:99). Harsh school discipline practices, lack of adequate support from school staff, failing to set and maintain clear behavioural boundaries, and ignoring individual differences have been linked to undesirable behaviour among youth (Mayer, 1995; in Lewis, Sugai & Colvin, 1998). One of the most significant determinants affecting behaviour lies in the quality of interactions that students develop with school staff (Resnick, Bearman, Blum et al. 1997, cited in Bonny, Britto, Klostermann, Hornung & Slap, 2000:1017), suggesting that schools play an important role in shaping behaviour.

This study will draw from Hirschi's Social Bonding Theory to establish an analytic framework for considering the role of schools in mitigating risk by examining the situations and type of changes that schools can make in preventing early and on-going use of drugs. Hirschi stated that deviance and eventual criminality would occur when an individual's bonds to society were weak or broken. Along with family and peer networks, he specifically included students' relationship to school in his application of the theory. This study introduced the construct of school bonding by targeting two of Hirschi's four dimensions of social bonding theory: attachment and involvement. This was done to determine whether selected measures school attachment and school involvement were associated to, and predictive of, current and future drug use among high school youth.

To answer this question, the current study examined student self report data from an existing data set involving grade eight to grade twelve students in two medium-sized British Columbia school districts over two consecutive years (2005/06 and 2006/07). Specifically, the study sought to; 1) confirm the extent to which school bonding was associated to drug use behaviour, as well as; 2) examine the extent to which school bonding was a preceding condition to drug use behaviour. The findings are intended to

assist in gaining a better understanding for the role of schools in addressing risk and protective factors related to drug use among students for the development of more effective prevention-based policies and practices.

CHAPTER 2: LITERATURE REVIEW

International rates of substance use among youth peaked in the 1980's, declined in the early 1990's (Johnson, O'Malley, Bachman & Schulenberg, 2006; Hawkins, Arthur & Catalano, 1995), and subsequently rose again (United Nations, 2005). The Monitoring the Futures study (Johnson, O'Malley, Bachman & Schulenberg, 2006) measures substance use among American youth, reporting that more than half (55%) of young people in 1975 used illicit drugs by the time they had left school. By 1981, rates rose to 66%, followed by a decline to 41% in 1992. Since the drop in the 1990's, drug use has risen again, fluctuating between 55% in 1999 to current day rates of 48% in 2006. The 2005 *World Youth Report* documents this current rise, drawing specific attention to the use of synthetic drugs that is occurring on a worldwide scale (United Nations, 2005).

Canadian substance use patterns are similar to international patterns (Health Canada, 2001). A Health Canada report, *Preventing Substance Use Problems Among Young People: A Compendium of Best Practices*, identifies substance use patterns for Canadian youth by comparing findings from a number of studies conducted in various provinces between 1994 to 1999. It provides an important reference document for this study. One of these studies involves the Ontario Student Survey on Drug Use (OSDUS), being the longest continuous Canadian survey of youth substance use. It shows that substance use peaked in 1979, followed by a steady decline until the early 1990's, at which time the use of licit and illicit drugs followed a consistent upward trend (Adlaf, Paglia & Ivis, 1999; cited in Health Canada, 2001). Apart from alcohol and tobacco, the

drug use rates mirrored those from the 1970's when substance use had peaked in Canada (Brounstein & Sweig, 999; in Health Canada, 2001).

On average, more students used drugs than did not in Canada (King, 1999; in Health Canada, 2001). This general finding was identified from self-report data gathered from grade seven to grade thirteen high school students during the 1990's through the International Health Behaviours of School-Age Children study (1999). Cross-sectional data from the 1998/1999 National Longitudinal Survey of Children and Youth (NLSCY), using results from twelve to fifteen year old students found average rates of alcohol use were 42%; with 22% having drunk to intoxication; 19% having used cannabis; and, 11% having tried hallucinogens at least once in the previous year (Hotton & Haans, 2004). Since these figures only apply to students from the public education system, the figures will not necessarily reflect prevalence rates among youth who were home schooled, from private schools, had skipped or dropped out of school, or were incarcerated (Health Canada, 2001). Among some of those groups outside the public education system, prevalence rates may be even higher.

Patterns of drug use among Canadian youth vary by type of drug. In their review of various drug use literature, Health Canada (2001) reported alcohol to be the most commonly used substance, with approximately two out of three youth reporting use. This was followed by tobacco and cannabis, which were reported at the rate of approximately one in three. Students from British Columbia had the highest use of cannabis, with 40% of students having tried it at least once in the previous year. West Coast youth were also noted as the highest national users of drugs in 2007 by Vancouver Coastal Health having found that among those between the ages of sixteen and twenty five years of age, 90%

reported alcohol use, 70% marijuana use, and more than 50% had tried cigarettes (Vancouver Coastal Health, 2006).

The Health Canada report states that hallucinogens were the fourth most common substance of choice among Canadian youth. Depending on province, hallucinogens were used at the rate of between 9% and 14%, and LSD at the rate of 6% to 11%. Far less common, were the use of inhalants, stimulants, cocaine, methamphetamine, heroin, PCP and non-medical use of other drugs, including tranquilizers and barbiturates. The latter group of drugs ranged in use from 3% to 10%, depending on the specific province, or other group characteristics (Health Canada, 2001).

A comparison study (Hotton & Hans, 2004) of substance use rates between Canadian and American youth examined results from the 2002 Youth Smoking Survey (Canadian) and the 2002 Monitoring the Futures Study (American). Findings indicated that more Canadian than American youth used alcohol (57% and 47% respectively), with cannabis use being similar (17.1% and 19.2% respectively). A striking difference, however, was found with the use of inhalants among grade eight students: 7% of Canadian youth reported its' use as compared to 15% of American youth.

Inhalant use is a growing problem among American youth, and is linked to first experiences with a psycho active drug (Mosher et al. 2004). This is believed to be due, in part, to the availability of inhalants through a wide range of household items (nail polish, paint thinner, and aerosols) that allow youth to experience a 'cheap high'. Native American youth had the highest level of use. While inhalant use was most common in early teens (National Institute of Drug Abuse, 1998; cited in Mosher et al. 2004), continued use declined with age. It is suggested that the apparent decline may, however,

be masked by mortality rates inherent through the limitations of using cross-sectional school-based survey data (Mosher et al. 2004).

In Canada, the use of “club drugs”, including ecstasy, methamphetamine, Rohypnol, GHB, and Ketamine, though less frequent, is reported by the Ontario Student Survey on Drug Use (OSDUS) at 4.4% across the age range of students (Adlaf, Paglia & Ivis, 1999; cited in Health Canada, 2001). This reflected a between-grade usage ranging from approximately 1% of seventh grade students to 10% of eleventh grade students who reported use over the past year. The increase has been of particular concern due to the significant rise from 1993, when only 1% claimed to have used club drugs across grades.

Risk Factors for Substance Use

Risk factors contributing to the use of drugs and alcohol among youth are documented at the individual, family, peer, school and community level.

Individual Risk Factors

Gottfredson and Hirschi (1990) state that delinquency arises from a lack of self control. They argue that delinquency and substance use are inter-related behaviours that predict criminogenic tendencies. Ones’ lack of self control stems from a desire for interim gratification through avenues that require less effort, and result in more immediate and concrete rewards (Hwang & Akers, 2003). This suggests that substance use is a matter of individual desire, choice or free will.

Others challenge the notion of free will by acknowledging the influence of physical and chemical impairments that may cause setbacks and create additional challenges for individuals (Health Canada, 2001). This alternate view suggests that some

individuals face certain barriers that add a layer of complexity regarding drug use (CCSA, 2007b). Biological interference during brain development, for example, may result from family involvement in drug use (Health Canada, 2001). Biological interference may also lead to psychological impairments becoming evident through the development of mental disorders, challenging temperaments, child abuse, or trauma (Glantz & Pickins, 1992; in CCSA, 2007b). Individuals who are challenged by such factors, as found in many street youth or those on their way to becoming street youth, are more likely to become early users, heavy users, and drug abusers (CCSA, 2007b; Health Canada, 2001; Robertson, David & Rao, 2003). Rather than simply viewing delinquency as a behavioural choice stemming from a lack of self control, chemical or physical impairments may contribute to the use of drugs and alcohol as a way of coping with a series of problems that may confront certain youth (Health Canada, 2001).

Another view suggests that substance use is linked to social disadvantage. One form of social disadvantage associated to problematic drug use stems from disrupted childhoods, particularly for those who have a history of school failure and subsequent involvement with crime (Hawkins, Arthur & Catalano, 1995; Buchanan, 2005; in McCrystal, Percy & Higgins, 2007). Heavy and multi-drug use is much more likely to occur among sexually-abused and exploited youth, youth from socially disadvantaged situations, refugee youth (United Nations, 2005), gay/ lesbian and questioning teens, youth in custody, runaway and street involved youth, adolescents with co-occurring disorders, and First Nation, Inuit and Metis youth (CCSA, 2007b). Cumulative levels of disadvantage at the individual level may fuel further marginalization and subsequent patterns of drug use through a process known as ‘othering’, where individuals or groups

of individuals (including certain neighborhoods) may become viewed as being somehow different (and therefore alienated) from the rest of society (McCrystal, Percy & Higgins, 2007).

Research links substance use patterns with age. Substance use peaks in the early twenties and then declines (Gottfredson & Hirschi, 1990). Tracing this shift further, the 2005 *National Survey on Drug Use and Health* (NSDUH) reported usage rates between the ages of twelve to eighteen years of age jumping five-fold for drugs, and thirteen-fold for alcohol within this six year developmental period (U.S. Department of Health and Human Services, 2005). In Canada, the 1998/99 *National Longitudinal Survey of Children and Youth* (NLSCY), based on 4,296 respondents aged twelve to fifteen years, asked students to report their level of drug and alcohol use “at some time”. Regarding alcohol, 17% of twelve year olds admitted to its use, compared with 66% for fifteen year olds. Drinking to intoxication increased from 4% for twelve year olds to 29% for fourteen year olds, and 44% for fifteen year olds. Marijuana use grew from 3% for twelve year olds to 38% among fifteen year olds (Hotton & Haans, 2004). The average age of first initiation for alcohol for a significant minority of young people in Canada was around fourteen years of age (CCSA, 2007a), with patterns reflecting first use of marijuana in grades eight to grade nine, and other substances in following years (Health Canada, 2001).

Competing views (Tittle, 1995; cited in Akers & Lee, 1999) exist concerning the extent to which age is a useful concept for explaining, predicting, or preventing substance use. Substance use must be viewed more fully by considering the broader forces, including the social and developmental factors associated to age. Combining Tittle’s

(1995; Tittle & Ward 1993, cited in Akers & Lee, 1999) premise that the causes of crime and delinquency are the same regardless of age, social learning theory differentiates the effects of age that interact differently according to ones' place in the social structure. Accordingly, age has an influence on normative patterns of behaviour driven by direct and indirect social interactions, imitating others, reinforcements, and surrounding attitudes about certain behaviours (Akers & Lee, 1999). The peer, family, church, or school contexts tend to have a direct influence on behaviour but to differing degrees that depend on the developmental stage of life (Akers & Lee, 1999). Thus, it appears as though age may be too simplistic a notion when seeking to understand and address this form of risk-taking in adolescence.

Individual factors leading to the use or abuse of drugs is a complex issue. Young people use drugs for a variety of reasons. While many youth use drugs for their perceived benefits or availability, marginalized youth may be more driven to use drugs to escape their current situation, memories of the past, or to fulfil the need to escape negative emotions, including depression or suicide ideation (CCSA, 2007b; Health Canada, 2001).

Family Risk Factors

Youth from disadvantaged homes that are distinguished by parental conflict, poor supervision (Hotton & Haans, 2004), hostile or negative parenting styles, lack of structure, inconsistent application of rules, or where anger and threats occur with great regularity, are more likely to use alcohol or drugs (Hall, Doran, Degenhardt & Shepard, 2006). Youth from step-parent families, compared to intact families, were found to be nearly two times more likely to use drugs (Hotton & Haans, 2004). Additionally, youth who come from homes characterized by lack of attachment to parents or caregivers, and

where caregivers abuse substances, are at increased risk for using drugs and alcohol (Robertson, David & Rao, 2003). Home life, however, becomes less influential as children grow toward young adulthood; at which point they become vulnerable to other factors. This may include risks associated to (un)employment, or relationships with an intimate partner (Hoeve, Smeenk, Loeber et al. 2007). It appears as though the strength of family influences associated to adolescent substance use varies with development.

Peer Risk Factors

Youth may be drawn to use drugs and alcohol due to attitudinal influences from peers, their tendency to imitate peers, and through reinforcement from peers (Hotton & Haans, 2004). Results from the 1999/1998 National Longitudinal Survey of Children and Youth (NLSCY) show youth to be eleven times more likely to use alcohol when reporting that most of their peers consumed alcohol, and nearly twice as high for drinking to intoxication among youth who claimed to have friends who were often in trouble. The same general pattern held true for the use of drugs (Hotton & Haans, 2004). In another study, (Skinjner & Wilborn; cited in Faircloth & Hamm, 2005) individuals with peers who conformed to conventional norms of behaviour and who remained committed to academic success had higher rates of school achievement. On the otherhand, studies also show that having peers who were not engaged in school, nor motivated by its' processes and goals, were much more likely to report delinquent behaviour, including experimentation with drugs and alcohol use, gang affiliation, and violence. Though the directions of these associations are unclear, peer connections appear to play a reinforcing and influencing role affecting decision-making about the use of drugs and alcohol (Garcie-Reid, Reid & Peterson, 2005; Goodenow, 1992; Hotton & Haans).

Identity formation for youth, including their need to belong to a peer network, is one of the reasons why youth decide to use drugs. International research (Jarvinen & Gundelach, 2007) examining alcohol-related lifestyles gathered information from two hundred Danish grades nine to grade twelve students. They wanted to know why youth defined certain behaviours, such as using drugs and alcohol, as being valuable or right (Jarvinen & Gundelach, 2007). Youth gave a high level of symbolic capital to the use of alcohol through participating in the party culture. They also gave a high level of social distinction to those who engaged in alcohol use to the point of intoxication because it allowed them to be noticed, and even admired for their behaviour among certain groups. In turn, those who participated in this form of lifestyle were subsequently invited to other parties, while those who did not embrace a drinking lifestyle stayed home. The authors of this study noted an 'alcohol-centric' dichotomous and conditional pathway toward belonging that provided continued justification for the on-going use of alcohol and for some, drugs as well. Not surprisingly, the study was also able to determine that those who became high-risk drinkers were also those who were more likely to experience more emotional distress and who had poorer relationships with their parents. This finding confirms earlier research reported by Health Canada (2001) suggesting certain youth were at increased risk for substance abuse as a way of dealing with stress, though it does not identify causality.

The apparent growing normalization of drugs and alcohol in society has contributed to a social climate among peers that may encourage use. Past research comparing attitudes about the use of drugs stems back to the 1990's when tolerance for substance use grew (Hawkins, Arthur & Catalano, 1995). Adlaf, Paglia and Ivis's

research (2001, cited in Hotton & Haans, 2004), using the OSDUS, reported a 19% increase in acceptance for the use of marijuana between 1991 and 2001 (42% vs 61% respectively). The report showed a similar pattern for the “once or twice” use of cocaine, rising in acceptance from 55% of the population from its previous rate of 41%. As views became more tolerant, corresponding drug use rates, including heavy drinking, also rose. Youth Court Statistics also mirrors the rise in drug possession and trafficking cases for the same period (Hotton & Haans, 2004). Similar patterns have been noted across Canada (Hotton & Haans, 2004), and more globally (Substance Abuse and Mental Health Services Administration, 2002). For example, a Belfast study (McCrystal Percy & Higgins) uncovered very recent trends to suggest that “drug use is no longer restricted to “delinquency or street corner ‘no hoppers’”(2007:48), but that a broader proportion of youth have “assimilated and legitimated recreational drug use” (2007:48). Some suggest the rave or party scene is a cultural marker representing a shift from its former association with the subculture (Parker et al. 1998b; cited in McCrystal, Percy & Higgins, 2007), to becoming more in-grained into the broader culture of society (Blackman, 2004; cited in McCrystal, Percy & Higgins, 2007).

The social climate concerning drug use among peers is linked to the growing normalization of drugs, and supported by a risk management logic concerning its use. The CCSA (2007b) has acknowledged the widespread use of drugs, attributing age, and the extent to which youth acknowledge the potential harm of drugs associated to use. After examining the attitudes and behaviours of three hundred middle-class, well educated, rave-attending youth in the San Francisco Bay area, Hunt, Evans and Kares determined that substance use behaviour is “far from being passive, ignorant or ill-

informed of the dangers... [but that young people] operate and actively engage in an elaborate system of techniques designed to minimize a sense of uncertainty associated to their drug use “(2007:77). For example, while fear of having a bad trip was identified as a central concern, youth explained a decision-making rationale that involved an assessment about the level of social trust among their friends, their own frame of mind, drug-associated risks, and the overall context in which the activity would occur.

Youth rank ordered drugs by level of dangerousness (Hunt, Evans & Kares, 2007). The greatest perceived threat to well-being was methamphetamine, heroin, and cocaine. Ecstasy was seen to be low risk. The following statement captured a commonly held rationale for the use of ecstasy:

I think that it's one of the lesser harmful drugs out of like the drug spectrum. As long as you make sure you don't get dehydrated, or get bad stuff, you're gonna be all right... You're not gonna overdose off of it, as long as you don't take a whole bunch of it. And...you know, it's usually a pretty good experience (Hunt, Evans & Kares, 2007:84).

Though a sense of risk was admittedly present, drug use appeared to be of no greater consequence than environmental pollutants that youth were exposed to on a daily basis. One youth remarked, “I have concerns about...the long term effects of me breathing smog...so I don't...concern myself with...the use of a drug more than any other thing in my environment” (Hunt, Evans & Kares, 2007:85). Most youth agreed that drug use was generally worthwhile (Hunt, Evans & Kares, 2007). While certain perceived benefits of substance use may appear to outweigh the risks for youth who use drugs experimentally or even occasionally, research states that a substantial sub group of young people will not only harm their own well-being but place others at risk through drug-related activities (CCSA, 2007b).

Neighborhood and Societal Risk Factors

The increased use of drugs and alcohol among youth mirrors a societal shift in norms found among adults who model greater tolerance toward alcohol and drugs (Health Canada, 2001; McCrystal, Percy & Higgins, 2007). While societal attitudes reflect a broader backdrop effecting decision-making about drugs, deprived and socially excluded communities have been linked to some of the most problematic drug use (Eith, 2004). Neighborhood cohesion is the extent to which a community can articulate and agree to common values of its people, and then mobilize to solve its' own problems (Sampson & Groves, 1989; in Kohen, Dahinten, Leventhal & McIntosh, 2008). However, as neighborhood cohesion decreases, drug use increases. Disadvantaged communities are more likely to lack an ability to monitor their children and youth (Sampson, 1997, in Kohen et al. 2008), increasing the likelihood of increasing adolescent delinquency due to unsupervised peer group activities (Sampson & Groves, 1989; in Kohen et al. 2008), poor parenting practices, the lack of positive role models, and the absence of positive socializing influences from institutional resources (eg. libraries, parks) that provide formal and informal relationship building opportunities between individuals, families, and the community (Kohen et al. 2008). The quality of interactions and level of cohesion between youth, adults, and the broader community is critical for effective monitoring children during two major transition periods: as children progress from elementary to secondary; and, when young adults leave home to attend college or go to work (Robertson, David & Rao, 2003).

School Risk Factors

Schools represent a primary developmental arena where students' concept of self, peer connections, interpersonal skills, habits and worldviews are formed. A primary purpose for establishing a public education system was to inculcate a cohesive set of norms and values for the regulation and construction of human capital, and to keep children out of trouble (Wotherspoon, 2004). The public education system was founded on middle class values and norms (Eith, 2004) that include "ambition, individual responsibility, self-denial, rationality, delaying of gratification, industry, manners, control of aggression, wholesome recreation, and respect for property" (Gottfredson & Hirschi, 1990).

Given their primary position as socializing structures for youth, social justice advocates maintain that conventional educational models fail to account for the extra needs of students who face greater challenges attaining the normative standards for behaviour and prized academic performance goals (Akers & Lee, 1999; Eith, 2004). This suggests that students are under varying degrees of tension and stress to conform to the educational and behavioural standards in society (Hoppe, Wells, Haggerty, Simpson, et al. 1998).

Critical theorists argue that vulnerability to substance use is linked to the creation of an underclass in schools through exclusionary and marginalizing practices (Furlong & Cartmel, 1997; cited in McCrystal, Percy & Higgins, 2007). Exclusionary practices have been linked to labour market forces that drive the need for higher educational attainment. Students who are cut off from opportunities to develop successful career trajectories by the ages of sixteen and eighteen are more likely to find themselves living in an

“undercaste” lifestyle and unable to participate in a largely consumer driven society (Furlong & Cartmel, 1997; in McCrystal et al. 2007:36).

Schools may unwittingly contribute to a risk environment as they operate within a paradigm based on equality of opportunity rather than through equity-based frameworks (Collier, 2006; Eith, 2004; Mortimore, 1999). Equality of opportunity fails to recognize that all students do not all begin school, nor proceed through life, from a similar place of ‘advantage’. Students from socially and economically disadvantaged positions face greater challenges in meeting or complying with established educational standards for behaviour, academic performance, and even outward appearance (Akers & Lee, 1999). Though behavioural science has long wrestled with finding the most efficient method for educating society’s youth, Nel Noddings (1992) contends that an over-riding focus on efficiency has been guided by an ideology of control. This has been dominated by a predominant emphasis on curricular instruction as the primary goal of schooling that results in alienating students at the cost of developing caring relationships between the individual teacher and the individual student to buffer children from risk (Noddings, 1992).

Automation and resulting student alienation can be observed through the practice of streaming. Streaming is a commonly used tiered educational process based on ‘ability’ groupings (Eith, 2004). It results in the sorting of students into either an academic stream (headed for university preparation) or a non-academic stream (characterized by technical or vocational training) (Eith, 2004). Critics claim that streaming segregates and alienates students based on their performance, rather than working with students’ potential (Eith, 2004; Wotherspoon, 2004). Alienation may occur as the effects of streaming detract from

students' sense of well-being through a competitive-driven system that generates 'winners' and 'losers'. When students perceive schooling to be unfair, their growing disillusionment may result in disengagement from school and create a climate of risk for engaging in drug use (Eith, 2004; Gottfredson & Hirschi, 1990; Mortimore, 1999, cited in Kane, 2006).

Scholars acknowledge the limited impact that school effectiveness research has made since Willis' (1977; cited in Kane, 2006) seminal ethnographic work, *Learning to Labour: Why working-class kids get working-class jobs* was published. At that time, Willis concluded that the failure of schools to make advances in gaining compliance, particularly by boys from working-class identities, is because 'working-class' students have often made a rational decision to reject 'compliance' for 'credentials'. This is the case for males from lower class backgrounds who are more likely to group with similar circumstanced peers to assert their status through an inverted value system (Eith, 2004). Research suggests the system needs to "permit as many as possible to succeed – albeit at different speeds, with different amounts of support and to different levels" (Mortimore, 1999; cited in Kane, 2006:675).

The best behavioural outcomes occur as students personally identify with the norms and goals of their school (Rutter, Maughan & Mortimore et al. 1979, cited in Henry & Slater, 2007). While attention and awareness about codes of conduct are important, much of what is seen to be problematic behaviour (such as drug use) are more accurately linked to high rates of boredom, alienation and disconnection from a meaningful sense of challenge at school (Larson, 2000). In addition to engaging students through strengthening relational ties, schools play an important role to promote social

cohesion by establishing and maintaining firm sanctions regarding substance use. Like parenting, schools can provide safe environments by engaging youth at their level, challenging them, and through careful monitoring of behaviours (Voelkl & Frone, 2001).

As risk factors associated to substance use among youth accumulate across individual, peer, neighborhood, and school domains, young people are confronted with compounding levels of risk (CCSA, 2007b; Hawkins, Arthur & Catalano, 1995). This has important implications for designing prevention and intervention strategies to reduce early and on-going drug use. Though young people may perceive or realize certain benefits associated to substance use, prevention strategies to reduce and delay early onset, as well as to reduce and prevent the use of drugs and alcohol, must take into account the potential for risks at the individual, family, peer, school and community level.

The continued proliferation of drug education programs in schools today suggests that additional exploration is needed to understand the on-going problem of adolescent drug use. Various approaches since the 1960's have been tried. These range from among harm reduction, reducing the supply of substances through regulation and law enforcement, reducing demand for supply, and offering school and community-based prevention programming (Hawkins, Arthur & Catalano, 1995). Though the scientific evidence for substance use prevention education programming is inconclusive (Cohen, Plecas & Watkinson, 2005; Gandhi, Murphy-Graham, Petrosino, Chrismer & Weiss, 2007; Health Canada, 2001), there is growing agreement about the importance of adopting a risk-focussed perspective that draws attention to the importance of strengthening protective factors in young peoples' lives (Hawkins, Arthur & Catalano, 1995; Scales, 2005; Schaps & Solomon, 2003).

The research focussing on the reduction of risk through emphasizing protective factors is an emerging approach for prevention science (Hawkins, Arthur & Catalano, 1995; Health Canada, 2001). While social problems tend to arise from the compounding effect of risk-related influences, protective factors have the opposite effect (Hawkins, Arthur & Catalano, 1995; Schaps & Solomon, 2003). They may lessen risk, provide a buffer against risk, interfere with risk, or prevent dysfunction from occurring (Coie, Watt & West et al.1993; in Hawkins, Arthur & Catalano, 1995). Rarely do substance abuse prevention programs target the social context of an adolescent's school environment adequately (Henry & Slater, 2007; Schaps & Solomon, 2003). Since many of the risk factors surrounding youth are difficult to influence directly, schools are important sites for investigating whether protective factors can be strengthened through more focused attention toward the individual student, the individual teacher, and their relationship in order to reduce substance use involvement.

CHAPTER 3: THEORETICAL FRAMEWORK OF SCHOOL BONDING

Social Control Theory

While also recognizing the value that overlapping theories, such as learning theory, choice theory, and structural theory may contribute to an examination of delinquent behaviour, the current study will utilize social control theory. Social control theory is interested in knowing why people obey the rules of society, while assuming that all people have the potential and opportunity to commit crime or delinquency. Accordingly, though all people may be enticed to commit crime, some are better able to resist enticement than others (Siegal & McCormick, 1999). Travis Hirschi's Social Bonding Theory (1969) was one of the first expressions of social control theory (Siegal & McCormick (1999).

Hirschi's Social Bonding Theory

Travis Hirschi (1969) stated that deviance and criminality arises when an individual's bonds to society are weak or broken. An individuals' motivation to act in a pro-social manner is motivated by fear of damaging important relationships with societal others. Social Bonding Theory is also one of the earlier theories to explore delinquency in the context of an individuals' relationship with broader societal structures, such as schools (Eith, 2004). The reference to 'societal' entities is broad, ranging from individuals (parents, teachers, parents, peers) to groups (families, schools, churches)(Hirschi, 1969). Thus, without the development of a social bond, and without an

internal desire for social approval from important external others, people are free to commit criminal or deviant acts (Hirschi, 1969).

The 'social bond' includes four parts: attachment, involvement, commitment, and belief. Attachment is viewed as a central psychological mechanism that connects an individual to a significant societal 'other' (Hirschi, 1969). Attachment involves having an interest in, and sensitivity to, the opinions of others (Hirschi, 1969). For the same reason that attachment promotes a moral conscience through the internalization of norms, the psychopath is free to deviate. The psychopath lacks moral restraint, feeling no guilt or fear of disapproval by societal others when he behaves in anti-social ways because he lacks a conscience or super ego (Hirschi, 1969).

The second element, involvement, refers to time spent *doing* activities of a conventional nature (Hirschi, 1969). The degree to which one becomes involved in activities reduces opportunities to engage in delinquent behaviour, crowding out the possibility for even conceiving of such acts (Hirschi, 1969). Involvement has a reinforcing and insulating effect that reduces delinquency because youth who are engaged in conventional activities tend to be under the supervision or guardianship of supportive adults (Hirschi, 1969).

Belief is the extent to which an individual embraces the established norms and values to be morally legitimate and personally desirable (Hirschi, 1969). Views and opinions that favour sensitivity toward others, and showing respect for the legal code constitute examples of the belief component (Siegel & McCormick, 1999). Belief influences behaviour depending on how firmly one belongs to a social network of people

who share a common understanding of, and live according to, those conventions (Siegel & McCormick, 1999).

Commitment refers to the time, energy and effort that an individual invests in certain types of activity (Hirschi, 1969). While wanting to attain a university education is an example of a prized conventional goal, commitment involves the choices and effort required to attain it. As individuals are faced with an opportunity to engage in deviant behaviour, they must also consider the cost that deviant action may place on jeopardizing that goal (Hirschi, 1969). The commitment element reinforces social bonding by providing a form of holding power (or resiliency) toward a certain line of activity (Eith, 2004).

Assessments of Social Bonding Theory generally support the notion that weak societal bonds increase the likelihood of delinquency (Hawkins, Arthur & Catalano, 1995). Opposition to Hirschi's theory has given greater clarity to the way in which the various elements function. For example, higher levels of involvement do not necessarily result in less delinquency. What appears to matter is that the object of attachment is pro-social in nature (Burton, Cullen, Evans et al. 1995; cited in Siegel & McCormick, 1999, Hirschi, 2001; in Hirschi, 1969). A similar finding was true for attachment. Hirschi's earliest supposition stating that any form of social attachment was favourable, regardless of whether attachments were formed with deviant entities, has been discredited (Hindeland, 1973, Jensen & Brownfield, 1981, Samuelson, Hartnagel & Krahn, 1990, Warr, 1993; cited in Siegel & McCormick, 1999).

Further testing has shown social control variables to be less predictive of male behaviours than females, suggesting the basis for this lies in the theory's orientation

toward social relations (Krohn & Massey, 1980, Rosenbaum & Lasley, 1990; cited in Siegel & McCormick, 1999). Influencing factors appear to differ by developmental age. A study examining a group of grade six to eight students in New Brunswick found self-esteem and physical health to be the most significant individual level factors influencing school belongingness (Ma, 2003). In another study, weak bonds to parents and teachers during mid-teen years (15 years), and strong bonds among males at twelve and eighteen years of age, led to delinquency (LaGrange, Pandina & LaGrange, 2006). Finally, though Hirschi claimed the causal chain toward criminality originated from weak bonds, Robert Agnew (1985) identified that the direction of travel could occur in reverse order as well (cited in Siegel & McCormick, 1999). Despite its criticisms, Social Bonding Theory has been an enduring framework for understanding early forms of delinquency and crime (Siegel & McCormick, 1999).

Social Bonding Theory and Schools

In the context of schools, scientific testing generally supports the notion that when students feel personally connected to school, they are less likely to engage in destructive behaviours, more likely to internalize social norms, and better able to succeed in school (DeWit, Akst, Braun et al. 2002; Voelkl & Frone, 2001). Furthermore, the cumulative effect of social bonding found schools with higher collective levels of bonding to school reporting fewer instances of delinquency among students, including their use of drugs and alcohol (Henry & Slater, 2007).

Diaz (2005) identified school attachment as a feeling of being a part of a school through meaningful connections. School connectedness is referred to as “an adolescent’s experience of caring at school and sense of closeness to school personnel and the

environment” (Resnick, Bearman, Blum et al. 1997, cited in Bonny, Britto, Klostermann, Hornung & Slap, 2000:1017). School attachment is “the extent to which students ‘feel’ that they are embedded in, and a part of, their school communities” (Johnson, Crosnoe & Elder, 2001; cited in Diaz, 2005:320). Similarly, school attachment is “the extent to which [students] feel personally accepted, respected, included and supported by others in the school social environment (Goodenow, 1992:4). Common to all definitions is a reference to the interconnected nature between the individual (the student) and the social environment at school. All definitions point to a resulting emotive state arising from students’ experiences and perceptions of their social environment. Taken together, school attachment culminates in the individuals’ sense of connectedness to school personnel (Diaz, 2005), school processes (Johnson, Crosnoe & Elder, 2001, as cited in Diaz, 2005), and how they perceive being treated (respected, included, and supported) by others at school (Goodenow, 1992). This reinforces the notion that students’ level of attachment to school stems from both individual and broader school level factors linked to the social climate of their school (Maddox & Prinz, 2003; Cernkovich & Giordano, 1992; cited in Eith, 2004).

Risk and Protective Factors for School Bonding

School bonding is complex. The literature draws attention to an interaction of life domains at the individual, peer, and school context that expose youth to multiple levels of risk for developing healthy bonds to school.

Individual Risk and Protective Factors

Students who report a lower sense of belonging to school have higher overall rates of substance use. DeWitt et al. (2002) found that about two-thirds of students report a strong sense of belonging to their school, while 15% strongly disagreed. The consequences of students' lack of belonging has been associated with loss of motivation, academic success, general delinquency, premature leaving from school, and substance use (Enomoto, 1997; Garcia-Reid, Reid & Peterson, 2005; Marsiglia, Miles & Dustman, 2003). A study examining a population of Native youth found that sense of belonging played a protective role against drug use even when accounting for differences in school achievement (Napoli, Marsiglia & Kulis, 2003).

Substance use inhibits school engagement (Garcia-Reid, Reid & Peterson, 2005) and leads to cognitive impairment (McCrystal, Percy & Higgins, 2007). If caught under the influence at school, students risk being expelled (McCrystal, Percy & Higgins, 2007). Academic competence, on the other hand, is cited as a protective factor because some students view drug use as interfering with academic success (David & Rao, 2003). Results from the 1998/1999 National Longitudinal Survey of Children and Youth found youth who reported poor grades in school, in comparison to those who reported good grades, were more than twice as likely to drink to intoxication. Similarly, those indicating a weak commitment to school were more inclined to report having been intoxicated (Hotton & Hans, 2004). Interpersonal experiences with school personnel are critical for promoting healthy development, pro-social behaviour, and school success (Akers & Lee, 1999; Wentzel, 1989; in Faircloth & Hamm, 2005).

Family Risk and Protective Factors

The extent to which children and youth feel connected, committed, and successful in school is mediated by family involvement (Eith, 2004). Parents or adult caregivers contribute to school belonging and academic success through consistent efforts in monitoring their children, showing interest in homework, and becoming involved in the day-to-day activities of the school (Garcie-Reid, Reid & Peterson, 2005).

Specific to boys, a moderate inverse association between low support and neglectful parenting style and school achievement was identified (Sampson & Laub, 1993, 2001; cited in Hoeve, Smeenk, Leber et. al. 2007). In addition, males are more apt to develop beliefs that favour delinquency (Zhang, Loeber, & Stouthamer-Loeber, 1997; in Pardini, Loeber & Stouthamer-Loeber, 2005). This phenomenon strengthens in adolescence (Larson & Richards, 1991; cited in Pardini, Loeber & Stouthamer-Loeber, 2005) and is further exacerbated among youth who have a relationship with caregiver(s) who adopt negative communication patterns and harsh discipline methods (Kochanska, 1997; in Pardini, Loeber & Stouthamer-Loeber, 2005). Relational processes that depend on compliance-based motivation, rather than fostering the internalization of pro-social values through positive interactions, may predispose boys, particularly in the middle school years, to drift from family in search for new peers who support their delinquent actions (Carlo et al., 1999; in Pardini, Loeber & Stouthamer-Loeber, 2005). Furthermore, while family ties were found to strengthen pro-social behaviour during early childhood and adolescence, social connections through work or a marriage relationship during young adulthood had a greater influence on behaviour (Sampson, 2001; in Hoeve, Smeenk, Leber et. al. 2007). This suggests that family connectedness may play a decreasing role with age (Sampson & Laub, 1993; in Hoeve, Smeenk, Leber et. al. 2007).

This creates an opportunity for schools to strengthen their connections with youth through interventions that facilitate positive peer connections, expose youth to adult role models, and assist parents in their ability and effectiveness to monitor the social relationships of their children (Pardini, Loeber & Stouthamer-Loeber, 2005).

School attachment is associated with opportunity. It is more likely for students from positions of poverty and other forms of disadvantage to lack a sense of connection to their school (Bornholt, 2000; cited in Napoli, Marsiglia & Kulis, 2003; Collier, 2006; Skinner & Wilborn, 1994; cited in Faircloth & Hamm, 2005). Children and youth from economically disadvantaged family systems have greater difficulty acquiring social, technical and academic skills that are foundational to school success (Eith, 2004). Poverty increases pressure for adult caregivers to meet daily requirements for survival, leaving few resources for furthering the intellectual and social development of their children. While already being faced with learning difficulties and lower academic performance (Collier, 2006), students from positions of disadvantage face further risk through experiencing higher rates of social alienation at school (Collier, 2006).

Peer Risk and Protective Factors

School attachment is influenced through peer networks. Students who are not engaged in school, nor motivated by institutional processes and goals, are more likely to seek belonging with less conforming peers involved in drug and alcohol experimentation, gang affiliation, or violence (Garcia-Reid, Reid & Peterson, 2005). On the other hand, peers who demonstrate a commitment to academic success and who conform to the dominant norms facilitate academic achievement in others (Skinner & Wilborn, 1994; in Faircloth & Hamm, 2005). A successful preventative approach for steering a young

Latino student away from violence and destructive behaviour was to stimulate stronger connections between the youth and their family, school, and community (Peacock, McClure & Agars, 2003; cited in Diaz, 2005). While peer connections are an important factor influencing behaviour, pressure from friends generally failed to over-ride the influence that supportive and accepting teachers could contribute within the school setting (Garcie-Reid, Reid & Peterson, 2005; Goodenow, 1992). Promoting school attachment through enhancing social support from teachers for a group of high-risk students appears to reduce incidents of self-destructive, risky, or antisocial behaviour.

School Risk and Protective Factors

Teacher Care

“... the single greatest complaint of students ..is... they don't care!”
(Comer, 1988; cited in Noddings, 1992:2).

The importance of caring teachers must not be under estimated. Caring teachers foster resiliency in children through a relationship of mutual respect (Anderman, 2003; DeWit et al. 2002). A founding educational philosopher, Nel Noddings, articulated an ethic of caring in 1982 for the profession of teaching, tracing her concept of care to a German philosopher, Martin Heidegger (1962). He stated that care was “the very Being of human life” (1962; cited in Noddings, 1984:15) that required a state of consciousness that allowed the ‘carer’ to become “seized by the needs of the other” (1962; cited in Noddings, 1984:16). This form of care, however, is criticized for the way it suggests that assistance is handed *down* from one person to another, rather than a form of mutually beneficial exchange of energy between the ‘cared’ and the ‘cared for’ (Noddings, 1984). Noddings (1984) acknowledges the tension that can exist for teachers in balancing

control of the classroom and demonstrating care for students. Teachers fulfil an important role helping students access their potential by adopting pedagogies that “engage and enable students in valued and worthwhile activities, linking learning not just to the community, but also empowering students to use their own authentic knowledge, values and culture” (Gale, 2000; in Zyngier, 2003: 136). Healthier forms of demonstrating care in schools allows teachers to impart confidence in their students about their rightful place in society, particularly among those faced with extraordinary disadvantage (Collier, 2006). Noddings maintains that to feed children’s spirits is a higher order of professionalism brought about by encouraging mutual exchange, building relationships, and fostering sense of belonging.

Through her work with Latino students, Valenzuela (1999) expands on Noddings notion of care by demarcating aesthetic care from authentic care (Antrop-Gonzalez and De Jesus, 2006). Aesthetic care requires students to surrender to the teachers’ preference for “things and ideas”, regardless of cultural or social chasms that may exist between them. This form of care is faulted for being rooted in class and culturally based assumptions, supporting earlier contentions about the nature of schooling. Immigrant and U.S.-born youth, however, both stated their preference for a second form of caring steeped in “relations of reciprocity between teachers and students (Valenzuela, 1999; cited in Antrop-Gonzalez & De Jesus, 2006:412). While aesthetically based caring tends to set up barriers, authentic care appears to meet fundamental pre-condition for promoting success through its focus on encouraging student participation in more meaningful and personalized ways (Klem & Connel, 2004; cited in Antrop-Gonzalez & De Jesus, 2006). Developing authentic forms of caring therefore not only promotes

academic rigor, but also draws youth into larger networks of pro-social adults through more collaborative processes (Antrop-Gonzalez & De Jesus, 2006). A school enterprise committed to building human social capital into the very process of schooling itself reduces delinquency through the internalization of social norms and behaviours in a way that allows students to feel more connected to their educational journey (Collier, 2006; Enomoto, 1997; Sergiovanni, 1994; Zyngier, 2003).

Organizational Models

Various writers (DeWit et al. 2002; Enomoto, 1997; Payne, Gottfredson & Gottfredson, 2003; Sergiovanni, 1994) highlight the ‘school as community’ notion to address the layering of factors from individual, family, school, and community that bear on students’ success (Enomoto, 1997). Sergiovanni (1994) distinguishes between two operational modes of schools, arguing that ‘school as community’ differs from ‘school as organization’ in the way that each concept anchors its work. ‘School as organization’ tends to focus on managerialism, placing attention on quality, productivity, efficiency, and effectiveness. It works mainly from the standpoint of an economic model.

Sergiovanni (1994) states:

It is from economics, the parent of organizational theory, that educational administration has borrowed its theories of human nature and human motivation – theories built on the simple premise that as human beings, we are motivated by self-interest and thus seek to maximize our gains and cut our losses (cited in Enomoto, 1997:215).

While the ‘school as organization’ analogy is said to occur in the midst of an economically driven social environment where relationships are influenced by a competitive logic based on rationality, status attainment, and achievement toward a

predefined set of goals (Enomoto, 1997), he argues not all people are motivated through capitalist means.

'School as community', on the other hand, is founded on a less bureaucratic framework where "collections of individuals...are bonded together by natural will and...a set of shared ideas and ideals" (Enomoto, 1997: 218). This type of a social environment contains a high sense of community, where "members know, care about, and support one another, have common goals and sense of shared purpose, and to which they actively contribute and feel personally committed" (Solomon, Battistich, Kim & Watson, 1997, cited in Payne, Gottfredson & Gottfredson, 2003:236). This community model relies on the development of social relationships based on shared kinship, membership, locale, and principles that allow more students to gain access to the opportunities made possible through supportive relationships with school staff (Collier, 2006). While organizationally run schools tend to impose their structure through hierarchies, roles and role expectations, communally run schools tend to have more inclusive cultures by engendering a shared set of values and goals (Collier, 2006; Sergiovanni, 1994).

Though organizational and community models of education need not be a mutually exclusive set of operational means, schools generally operate according to the organizational model (Collier, 2006). By nature, organizational models establish climates of risk; particularly for youth from positions of disadvantage. There is growing evidence to suggest that as adults fail to model appropriate social interactions, teach an associated set of social skills, and establish climates of care, antisocial behaviour among youth will increase (Lewis, Sugai & Colvin, 1998). While most students can successfully navigate

the web of school dynamics (McCrystal, Percy & Higgins, 2007), students who do not have the opportunity to participate in educational processes in ways that connect to their realities are more likely to become excluded from opportunities afforded through the educational system (DeWit, et al. 2002; Enomoto, 1997).

Zyngier (2003) emphasizes that school processes must acknowledge the presence of inequity among their student bodies by going beyond programs and quick fix solutions. Hirschi's Social Control Theory maintains that schools can make a difference in reducing delinquent behaviour by targeting youths' need to belong. A positive learning environment has already been cited as a key factor for developing healthy school climate and fostering healthy belonging. Similar to home life, lack of structure and consistency leads to a negative social learning environment, particularly when the social climate of the classroom is poorly and inconsistently managed, and characterized by conflict. Additional school factors that may create a climate of risk for detachment from school differ by developmental level or grade. A Canadian study (Ma, 2003) involving sixth and eighth grade students in New Brunswick schools found the single most important school level factor for sixth graders was having clear expectations from teachers. Academic press, understood as students' belief about the importance of their schoolwork, followed in order of importance. Grade eight students, however, ranked the school's disciplinary climate being of highest importance. Disciplinary climate referred to perceptions about the fairness of rules, the enforcement of rules, students' level of participation in creating school rules, and staff responses to behaviour.

Viewing schools as a socializing structure for children and youth is not new. As early as the 1960's, Robins (1966) promoted the idea that schools should become

involved in raising children to fill in the gap from an apparent lack of parental discipline in the home (cited in Gottfredson & Hirschi, 1990). Schools are sites where a major portion of adolescent life occurs. As such, Gottfredson and Hirschi (1990) contend that schools must have a net positive effect on youth through the cultivation of self control in a way that leads to a crime free life. In their view, self control is predictable through one's commitment to mundane tasks at school, and expressed through activities, such as completing homework, liking school, and doing well in school (Glueck & Glueck, 1950: cited in Gottfredson & Hirschi, 1990). However, while having the opportunity to facilitate success, schools may also impose strain on individuals depending on the extent to which they are able to offer support and create positive places for learning. Schools play an important role for addressing the underlying causes of substance use and abuse among youth. Creating an environment that engenders attachment, induces commitment, promotes involvement, and results in a shared set of beliefs, reduces the likelihood that youth will develop behavioural trajectories involving delinquency and crime (Eith, 2004).

Longitudinal studies marking the direction of this relationship have been largely absent (McLaughlin & Muncie, 2006). The problem with most research is in its' use of cross-sectional data that draws correlational results about substance use and attachment. The extent to which substance use is influenced by students' sense of attachment is not yet identified in the literature, nor are we able to say which comes first – attachment or substance abuse.

CHAPTER 4: METHODOLOGY

This section describes the theoretical orientation, method of data collection, sample characteristics, and statistical procedure employed to test the research hypothesis.

Theoretical Orientation

Social Bonding Theory is particularly useful when seeking to discover those aspects of society that inhibit deviant or non-conforming behaviour by increasing compliance to social norms (McLaughlin & Muncie, 2006). Hirschi's Social Bonding Theory maintains that attachment to societal others, belief in the rules governing societal order, commitment to conventional routes of achievement, and involvement in pro-social activities are foundational to the development of pro-social behaviour (Hirschi, 2001; cited in Hirschi, 1969).

Originally, Hirschi (1969) proposed that all social bonding inhibited deviance (cited in Hawkins, Arthur & Catalano, 1995). Subsequent studies have outlined the importance of reconsidering this idea based on a clearer articulation for the target of attachment. Youth may develop social bonds to non-conforming individuals to influence behaviour in undesirable ways. This was particularly critical when examining relationships among peers (Hindelang, 1973 in Hoppe et al., 1998), and to parents (Conger, 1976; in Hoppe et al. 1998). Attachment, therefore, is viewed as a positive condition when the one to whom the individual is attached to is pro-social (Hawkins, Arthur & Catalano, 1995). The same principle applies to institutions, such as schools. By

their nature, schools are considered to be conventional and therefore pro-social in nature for the purposes of Hirschi's notion of social bonding (Hawkins, Arthur & Catalano, 1995).

This study draws from previous work by utilizing two of Hirschi's four social bonding dimensions (attachment and involvement) by relating those elements to the context of schools. The term *school bonding* was used to denote the presence of the two elements: school attachment and school involvement. The first objective was to re-examine the relationship between school bonding and drug use. The second objective was to examine the relationship between school bonding as a prior condition to drug use. The two-part analysis was intended to not only assess the extent to which school bonding items are able to predict current drug use, but also contribute to a new body of information to assist in determining the extent to which school bonding predicts future drug use. The findings are intended to guide the development of school policies for drug use prevention programming and to facilitate positive youth development. Two research questions guided the study:

1. Is students' level of school bonding associated to current drug use?
2. Is students' level of school bonding a preceding condition to drug use?

The Safe School Social Responsibility Survey for Secondary Students

The Safe School Social Responsibility Survey for Secondary Students (SSRS) is a self-report 285-item longitudinal survey for grade eight to twelve students (Appendix A). This instrument measures student demographics, perceptions and experiences of personal safety, substance use, school climate, self-concept, home life, social responsibility, and community involvement. A privacy code allowed the researcher to

track participants from one year to the next while allowing students to remain anonymous. The code was the product of five distinct questions that resulted in a unique combination for each student comprised of alpha and numeric characters. The original survey research project was completed in partnership with twelve B.C. school districts, the BC Centre for Safe Schools and Communities, and the University of the Fraser Valley. The purpose of the research was primarily intended to provide school districts with comprehensive data for planning safe and socially responsible learning environments.

Data Collection Process

The analysis for this study drew from the larger 2005/06 and 2006/07 SSSRS data set of more than 30,000 grade eight to twelve students who participated in the survey each year. From this larger sample, data from two medium-sized school districts formed the starting point for the analysis, containing approximately 15,800 students. The two districts, in particular, were chosen because they had participated in the survey research for two consecutive years. Permission to use the data was granted by the faculty researchers at the University of the Fraser Valley, as well as the research ethics board for the University for secondary use of data.

The 2005/06 and 2006/07 administrations of the SSSRS were completed in the spring of each year. Prior to survey date, a parent permission letter from the school principal was sent to the homes of students using a passive consent process. Students were informed ahead of time about the administration date at school through teacher announcements, school websites, and newsletters. Parents, students, and school staff were made aware of the survey's intent, of its voluntary, confidential, and anonymous nature.

Classroom teachers received prior training by school administrators to standardize the survey administration process.

Data entry occurred in the high security lab of the Centre for Criminal Justice Research at the University of the Fraser Valley using a semi-automated process involving the Scantron Cognition Enterprise system. Trained undergraduate university students performed verification and correction of data.

Dependant Variable: Drug Use

The dependant variable of interest was *drug use*. The survey asks students to provide information about the type and frequency of their drug use at school, and in the community *since September* of the school year. Drug use referred to eight types of drugs: marijuana, ecstasy, hallucinogens (LSD, acid), inhalants (glue, gas, aerosol), prescription pills (not prescribed by a doctor), crystal meth, cocaine, and heroin (Section C, Questions 48 b-i). Alcohol use was excluded from the examination. The variable, drug use, was operationalized by collapsing survey items to form a dichotomous variable indicating whether (or not) a student had reported drug use from the eight types. Drug use became a non-specific measure of drugs to test its relationship to school bonding. This allowed the study to differentiate between students who either *Used Drugs* (indicated by answering “Once or a few times”, “About once per month”, or “Every week or more”), or *Did not use Drugs* (indicated by answering “Never” to any of the above listed drugs) since the beginning of the school year.

Independent Variable: School Bonding

The independent variable used to examine the relationship to drug use drew from two of the four social bonding elements included in Hirschi's (1969) theory. The term *school bonding* is used to denote the presence of attachment and involvement elements in the context of schools. The following section outlines the rationale for operationalizing school attachment and school involvement as the two major components of school bonding in this study.

School Attachment

With respect to the school context, recent evidence has shown school attachment to be the most robust indicator of the four social bonding elements (Eith, 2004). School attachment involves a collection of singular relationships between the self and another, as well as a relationship that students develop with 'the school' in a collective sense (Diaz, 2005; Hirschi, 1969, cited in Diaz, 2005; Maddox & Prinz, 2003). Various bodies of research emphasize the multi-contextual and relational nature of school attachment that guided the selection of three specific measures. The first measure of school bonding, "I like school" (Survey Question 29) captured the broadest sense of school attachment. With reference to its inverse relationship to delinquency, Hirschi stated "[t]he relation between liking school and delinquency...is very strong" (1969:121). This general reference about students' relationship with school suggests that it goes beyond a collection of singular relationships between the self and another, but one in which students view having with 'the school' in a collective sense (Eith, 2004; Maddox & Prinz, 2003). This also acknowledged that students may have a certain fondness for the idea of school despite their lack of enjoyment for it, or the specific school they attend (Diaz, 2005).

The next two measures reflected qualitative elements regarding students' experiences found necessary to the development of attachment. The first, "Adults in my school respect me" (Survey Question 35), captures positive interpersonal connections (Anderman, 2003; Goodenow, 1992; Murray & Greenberg, 2000), making reference to the importance of social support from school adults (Lewis, Sugai & Geoff, 1998; Murray & Greenberg, 2000; Noddings, 1984; Scales, 2005). Goodenow specifically refers to respect in his definition of school connectedness, stating it is "[t]he extent to which [students] feel personally accepted, respected, included and supported by others in the school social environment" (1992:3). This is echoed in Murray and Greenberg's (2000) work identifying that students who had poor relations with teachers, along with weak bonds to school, scored lower on social adjustment in comparison to peers with positive staff relations. Anderman (2003) maintained that as adults model respect to students there is greater cohesion and sense of connectedness within the social environment at school.

The third measure of school attachment, "My ideas and opinions are important to at least one adult in my school" (Survey Question 23), allowed for the individual ego level response through students' feelings of being valued and acknowledged throughout the day to day exchanges with school adults. This was supported by Hirschi's (1969) and Hunter and Danzker's (2002; cited in Eith, 2004) articulation of attachment that refers to a psychological mechanism linked to the conscience and superego. The item's reference to approval or validation by at least one adult at their current school captured students' perceptions of their social position within a mainstream network. This was especially important for at-risk students where school membership "...is not simply technical

enrolment, but students' perceptions that others in the school, especially adults, are 'for' them, and that they count in the school" (Wehlage, 1989; cited in Goodenow, 1992:4).

Thus, school bonding through the application of attachment measures, refers to a general and specific nature through which connections are developed and perceived between the students, their teachers, and the institution. All three survey items were measured on a 5-point Lickert scale that allowed for the following response categories: "Strongly Disagree", "Disagree", "Undecided", "Agree", "Strongly Agree".

School Involvement

School involvement is the most visible and tangible dimension of Hirschi's four social bonding elements (Eith, 2004). Within the school context, Hirschi (1969) provided examples of involvement, such as regular school attendance, participating in a school club or group, or watching a sports event (Siegel & McCormick, 1999). This is based on the assumption that involvement protects youth from criminal behaviour, whereas lack of involvement (or idleness) promotes it. Lack of involvement offers time and opportunity for conceiving of, and getting into, trouble (Hirschi, 1969; Hunter & Dantzker, 2002; cited in Eith, 2004), and for developing bonds with negative role models. School involvement allows young people to be under the care and influence of pro-social adults during developmental years (Eith, 2004). For the same reason that involvement in school activities can function as a protective factor against the use of drugs, lack of involvement presents a risk factor for engaging in drug use (Eaton, Brener & Kaan, 2008).

The first two measures of school involvement are specific behavioural items representing the antithesis of regular school attendance. These include, "How often have you skipped class?"(Question 21b) and "How often have you skipped all day? (Question

21c). Research has linked school absenteeism to negative social environmental factors in school or home, as well as to poverty, and low academic motivation (Eaton, Brener & Kann, 2008). School attachment and school involvement are interconnected ideas. If students do not like school, they are more likely to have weak relations at school, and therefore more prone to absenteeism because of a decreased desire to please adults through behaviours that require school involvement (Hirschi, 1969; cited in Siegal & McCormick, 1999). These two variables related to skipping behaviour reflected varying degrees of absenteeism that were measured on a 5-point Lickert scale: “Never”; “At least once this school year”; “About once per month”; “About once per week”; and, “More than once per week”.

A third measure of school involvement, “How often have you participated in a school group or club?” draws on voluntary behaviour. Capturing school participation beyond a base level requirement of attending class suggested that students’ exposure to delinquent opportunities or thoughts, and their proximity to positive adult influences would decrease the chance of drug use involvement. This form of participation is also cited in Hirschi’s example of behaviours constituting ‘legitimate’ activity (Hirschi, 1969), and was captured in the survey on a five-point scale consisting of “Never”; “Once or twice”; “Once a month”; “About once a week”; and, “More than once a week”.

Data Analysis

Assessing associations between two or more variables using bivariate analysis is a basic yet useful method of data analysis (Sweet & Grace-Martin, 2003). To do so, the Statistical Package for the Social Sciences (SPSS) has a basic statistical procedure for

exploring relationships among categorical variables through the Crosstab function (Gravetter & Wallnau, 2002). Cross tabulations are a simple and effective way to illustrate the joint distribution between two categorical variables at the nominal or ordinal level of measurement by computing a grid that outlines all possible combinations of the values for those variables (Frey, Botan & Kreps, 1999; Sweet & Grace-Martin, 2003). The school bonding and drug use variables in this study were drawn from categorical response sets using ordinal level increments. The drug use variable was re-coded into a dichotomous variable to indicate whether (or not) a student had reported drug use from among a variety of drug types listed in the survey. The Crosstab command was able to provide information to indicate the strength and direction of the relationship between school bonding variables and drug use.

In order to draw conclusions about the relationship and theoretical proposition that school bonding was related to current, as well as the on-set of drug use, an estimate of probability was used by conducting Chi Square tests of significance. Chi Square tests explain the degree to which random chance is a likely explanation for a relationship between variables (Sweet & Grace-Martin, 2003). They are also the appropriate test to use in cases where numeric values are unavailable (Sweet & Grace-Martin, 2003), as was the case for school bonding and drug use. Therefore, if each time the value of school bonding showed a predictable change in the value of drug use, then the alternative hypothesis proposing there would be a relationship between school bonding and drug use should be real. The threshold used to indicate whether the relationship was statistically significant, was established at the .05 level in keeping with statistical standards for the social sciences (Sweet & Grace-Martin, 2003). In addition, when the relationship was at

or below the .10 level, conclusions about the observed relationship suggested that while an actual relationship appeared to be the case, more research would be required before drawing a more confident conclusion (Sweet & Grace-Martin, 2003). This process allowed the study to make a determination about whether a significant enough difference existed between students who used drugs and those who did not.

More specifically, the hypothesis that there would be a relationship between drug use and social bonding to school was consistent with the literature. Therefore, to determine whether school bonding was predictive of current and future drug use, bivariate associations and Chi Square tests of significance were established for Phase 1 (Time 1 - 2005/06), as well as for Phase 2 (Time 1-2005/06 to Time 2-2006/07). For Phase 2, the intent was to add a temporal component to the analysis by exerting additional control over the drug use variable at Time 1 (2005/06). After first matching student privacy codes for both years in order to track the on-set of drug use behaviour from one year to the next, a sub-sample consisting of all students who reported no drug use in Time 1 (2005/06) allowed the study to then conduct a re-examination of the relationship between school bonding and drug use. This was used to determine whether students who were less bonded to school in Time 1 (2005/06) were more likely to begin using drugs in Time 2 (2007/08) over those who were more bonded to school. Social bonding theory, and the construction of the school bonding variable led to the prediction that an inverse relationship between drug use and social bonding to school would exist. Therefore, the proposition that drug use at school, and in the community, both for the current and following year, would be the same among students in relation to their level of bonding to school was re-tested involving a temporal component.

Though bivariate analysis and significance testing forms part of a basic, yet useful, process of determining the extent of the relationship between two variables, allowing one to make accurate predictions about the other variable from a theoretical basis (Gravetter & Wallnau, 2002), this method of prediction is not fool proof. This statistical procedure allowed the study to answer a basic research question, while also acknowledging the study to be exploratory in nature. Further study using greater sophistication of analytic method would provide an even greater benefit.

Specifics about Sample Characteristics

The first phase of the data analysis (Time 1) consisted of examining a sample of 2,477 students from an annual joint district pool of approximately 15,800 students. Matching all possible cases of students' privacy code information found in Section A of the SSSRS (Questions 1-5) across both years, resulted in a match rate of 15.6%. Match failures occurred as a consequence of; 1) the voluntary nature of the privacy code (students choosing not completing the first, second, or both years of privacy code information); 2) students contributing privacy code information that was somehow different from one year to the next, and; 3) the lack of available matches from grade twelve participants in the 2005/06 year who will not have participated in the second year of data collection due to completing school. Not surprisingly, the process of matching student privacy codes reduced the sample substantially, and resulted in certain characteristic differences between the unmatched group and matched group. Comparisons of group differences are shown in Figures 1-4 for gender, grade, and ethnicity, and educational aspiration.

Figure 1: Gender Comparison of Matched Sample to Unmatched Sample

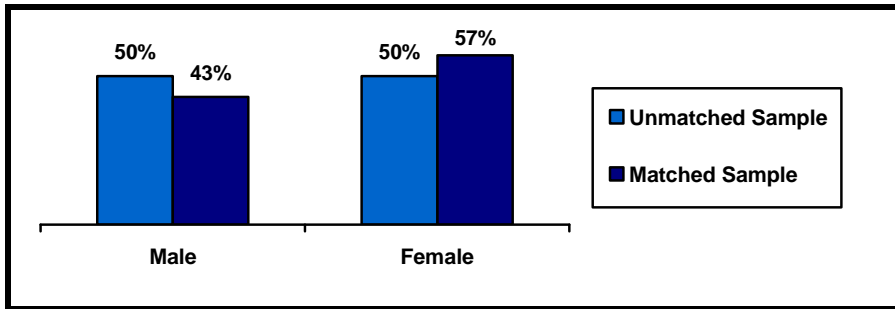


Figure 1 indicates that gender was somewhat over-represented by females (57%) over males (43%) in the matched sample in comparison to the even split for the unmatched group.

Figure 2: Grade Comparison of Matched Sample to Unmatched Sample

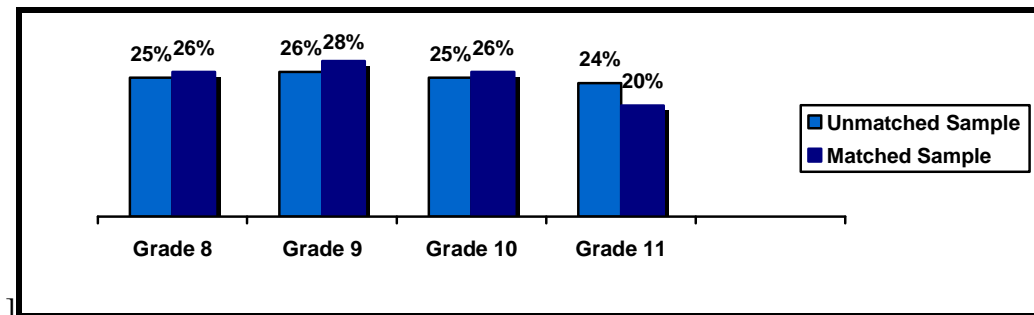
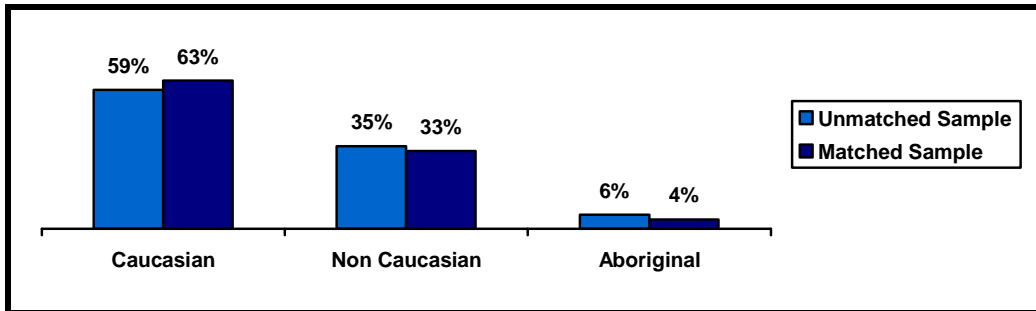


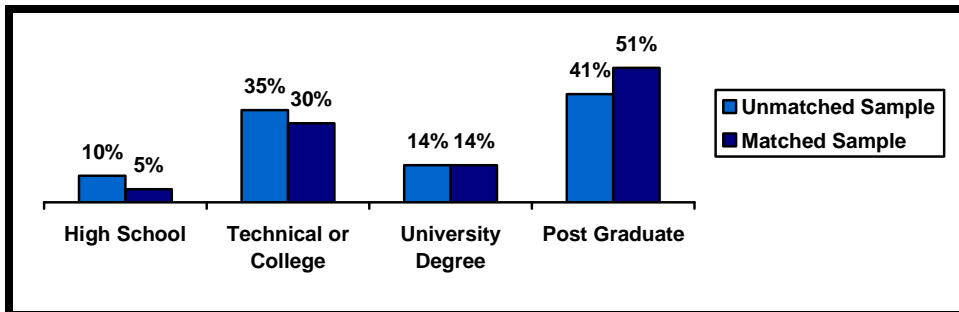
Figure 2 shows similarity across grades eight to eleven. The greatest inconsistency occurred among grade eleven students where the district percentage was 24% for the unmatched group, compared to 20% for the matched sample. As noted above, grade twelve students from the 2005/06 year were excluded from this analysis. Specifically, the matched sample consisted of 655 (or 26%) 8th graders, 693 (or 28%) 9th graders, 643 (or 26%) 10th graders, and 486 (or 20%) 11th graders.

Figure 3: Grade Comparison of Matched Sample to Unmatched Sample



By ethnicity, the greatest percentage difference existed in the 4% rise for Caucasian participants among the matched sample. The matched sample consisted of 63% being of Caucasian descent, 4% Aboriginal, and 33% Non-Caucasian (excluding Aboriginal). Group differences among the matched sample were also reflected in the Non-Caucasian (excluding Aboriginal) and Aboriginal categories, with a 2% drop in each.

Figure 4: Educational Aspiration Comparison between Matched Sample to Unmatched Sample



Finally, after asking students, “What is the highest level of education that you would like to complete?” (Question 17), figure 4 illustrates an elevated overall commitment to higher education among the matched group. Comparing the matched sample to the unmatched sample, 5% reported high school or less (vs. 10%); 30% technical or college (vs. 35%); 14% university degree (vs 14%); and, 51% postgraduate

degree (vs. 41%). The most pronounced shift in educational differences lay at either end of the aspiration spectrum, favouring higher aspirations among the matched sample.

Overall, when comparing the unmatched group (the general population of students from the two school districts) to the matched group, there were slight differences related to gender, grade, ethnicity, and educational aspirations. It is important to note that the very nature of filling out student privacy codes may suggest that students in the matched grouping are slightly more trusting of conventional institutions.

For the second phase of this analysis, a sub-sample of students who reported “never” using drugs was drawn from the matched sample by further isolating all students who reported “never” to using drugs in Time 1 (2005/06). The sample size was further reduced by approximately 36% from the sample of 2,477 students, leaving 1578 cases to make a determination about whether school bonding (involving school attachment, and school involvement variables) predicted the initiation of drug use.

CHAPTER 5: KEY FINDINGS

This study examined the relationship between school bonding variables and drug use. The association between variables was conducted in two phases. The results of the first phase are highlighted in Tables 1 to 6 using bivariate analysis to assess the association between school bonding (utilizing 3 school attachment, and 3 school involvement variables) and drug use for the current year (Time 1 - 2005/06). Results for the second phase of the analysis are highlighted in Tables 7-18, where bivariate analysis was used to examine the association between school bonding (utilizing 3 school attachment, and 3 school involvement variables) as a preceding condition (Time 1 – 2005/06) to drug use in Time 2 (2006/07).

For the most part, school bonding was inversely and significantly associated with drug use for both the current and subsequent school year among high school youth. This confirmed the predicted direction of the relationship for both objectives of the study based on Hirschi's Social Bonding Theory. The findings are presented in detail in the following sections of this chapter.

Associations for School Bonding (Attachment Measures) and Drug Use for Time 1 (2005/06 – current year)

School Attachment Dimensions

School Liking

Students were asked to respond to the statement, “I like school”. Table 1 demonstrates the inverse relationship between attachment and drug use behaviour. Though moderately small, ($r = -.197$), participants showed significant differences in drug use across all three measures of school attachment ($p < .001$). This was most clearly illustrated when comparing drug use between students who strongly disagreed, to students who strongly agreed with the attachment statement, “I like school”. Among those who strongly disagreed, 63% did not use drugs at school, compared to 38% who did. In contrast, among those who strongly agreed, 92% did not use drugs at school, compared to 8% who did. Students who had the lowest level of school liking were nearly five times more likely to use drugs at school compared to those who had the highest level of school liking.

Table 1: Differences between students who reported on whether or not they like school and drug use at Time 1 (2005/06).

I like school	AT SCHOOL		IN THE COMMUNITY	
	Did Not Use Drugs	Used Drugs	Did Not Use Drugs	Used Drugs
Strongly Disagree	63%	38%	48%	52%
Disagree	73%	27%	56%	44%
Undecided	81%	19%	62%	39%
Agree	86%	14%	70%	30%
Strongly Agree	92%	8%	81%	19%

Differences are significant at $p < .001$ level for both contexts.

* Questionnaire item #29 (see Appendix A) ** $n=2477$

A similar pattern of association held true for drug use in the community ($r = -.189, p = .001$). Among those who reported strong disagreement with the statement, “I like school”, 48% did not use drugs in the community, while 52% did. In contrast, among those who strongly agreed with the statement, 81% did not use drugs in the community, while 19% did. Students who had the lowest level of liking school were nearly three times more likely to use drugs in the community compared to those who had a high level of school liking.

When comparing drug use across context (from school to community) by level of school attachment, students were more likely to use drugs in the community than at school. Among those who strongly disagreed with the statement, “I like school” drug use was 38% at school compared to 52% in the community. By comparison, those who strongly agreed with the statement, “I like school”, drug use was 8% at school compared to 19% in the community.

Interestingly, and as might be expected, students who liked school and who also reported using drugs, used them away from school in higher relative proportion than students who did not like school. There was a greater rise in reported drug use from use at school to use in the community as students’ liking for school increased; reporting a rise of 138% across context among those who reported the highest level of liking, in comparison to 37% among those who liked school the least.

Respect from Adults

A second measure of school attachment examined student’s perceptions of social support from adults at school using responses to “Adults in my school respect me”. Consistent with the predicted direction of this relationship, Table 2 illustrates the inverse

and relatively weak association ($r = -.184, p=.001$) between drug use at school and feeling respected by adults at school. Among those who strongly disagreed with the attachment statement, 53% did not use drugs at school, while 47% did. In contrast, among those who strongly agreed with the statement, 89% did not use drugs, while 11% did. Students who felt the least respected by adults at their school were four times more likely to use drugs at school, compared to those who felt respected.

Table 2: Differences between students who reported on whether or not adults at their school respected them and drug use at Time 1 (2005/06).

Adults in my school respect me	<u>AT SCHOOL</u>		<u>IN THE COMMUNITY</u>	
	Did Not Use Drugs	Used Drugs	Did Not Use Drugs	Used Drugs
Strongly Disagree	53%	47%	37%	63%
Disagree	68%	32%	53%	47%
Undecided	79%	21%	61%	39%
Agree	86%	14%	69%	31%
Strongly Agree	89%	11%	79%	21%

Differences are significant at $p<.001$ level.

* Questionnaire item #35 see Appendix A) ** $n=2477$

The same inverse pattern of drug use in relation to level of attachment held true for drug use in the community ($r = -.178, p=.001$). Among those who reported strong disagreement with the statement, “Adults in my school respect me”, 37% did not use drugs, while 63% did. Among those who reported strong agreement, 79% did not use drugs, while 21% did. Students who felt the least respected by adults at their school were three times more likely to use drugs in the community, compared to those who felt a high level of respect.

Once again, when comparing drug use across context (from school to community) there was a greater rise in drug use, from use at school, to use in the community. Those who felt the most respected by adults showed a relative rise of 91% across context, in comparison to 34% from among students who felt the least amount of respect.

Ideas & Opinions

The third measure of school attachment for the Time 1 (2005/06) analysis examined students responses to the statement, “My ideas and opinions are important to at least one adult in my school”. Again, consistent with prediction, it resulted in the weakest inverse relationship of the three attachment measures ($r=-.069$, $p<.001$) for the current year. Table 3 illustrates that among those who strongly disagreed with the attachment statement, 65% did not use drugs at school, while 47% did. In contrast, among those who strongly agreed with the statement, 82% did not use drugs, while 18% did. Students who strongly disagreed with the statement that their ideas and opinions were important to at least one adult at their school were more than twice as likely to use drugs at school, compared to those who felt strongly that their ideas and opinions mattered.

Table 3: Attachment: Differences between students who reported on whether or not they felt their ideas and opinions were important to at least one adult in their school and drug use at Time 1 (2005/06).

My ideas and opinions are important to at least one adult in my school.	<u>AT SCHOOL</u>		<u>IN THE COMMUNITY</u>	
	Did Not Use Drugs	Used Drugs	Did Not Use Drugs	Used Drugs
Strongly Disagree	65%	35%	50%	51%
Disagree	71%	29%	52%	48%
Undecided	83%	17%	67%	33%
Agree	82%	18%	65%	36%
Strongly Agree	84%	16%	71%	29%

Differences for school and community are significant at $p < .001$ level.

* Questionnaire item #23 (see Appendix A) *** $n=2477$

A similar pattern held true for drug use in the community ($r = -.079, p = .001$).

Among those who reported strong disagreement with the statement, “My ideas and opinions are important to at least one adult in my school”, 50% did not use drugs in the community, while 51% did. In contrast, among those who strongly agreed with the statement, 71% did not use drugs in the community, while 29% did. Students who strongly disagreed that their ideas and opinions were important to at least one adult at their school were almost two times more likely to report drug use in the community over those who strongly agreed that their ideas and opinions mattered.

Finally, when comparing drug use across context (from school to community) with respect to students’ feeling valued for their ideas and opinions, there was a greater relative rise in drug use, from use at school, to use in the community, among students who felt valued for their ideas and opinions from school adults. This was illustrated in a reported rise of 81% across context, in comparison to only 37% from among students

who did not feel their ideas and opinions were of high importance to adults at their school.

This school attachment section for Time 1 highlights three general patterns of association for school attachment and drug use in Year 1 (2005/06). First, students with lower levels of attachment to school, measured by students' liking for school, feeling their ideas and opinions were important to at least one adult at school, and perceptions that adults at school respected them, were more likely to use drugs at school.

Accordingly, among those who used drugs, the greatest difference in reported drug use occurred between those who were highly attached to school (indicated by 'strongly agree') and those who were very unattached (indicated by 'strongly disagree'). Second, the same general pattern of association held true for drug use in the community though the context of the school appeared to moderate drug use. Across all levels of school attachment, drug use was more likely to occur in the community. Third, students who were more socially bonded to school appeared to be more discerning in their decision-making to use drugs away from school. This last finding, in particular, highlights the need for further research to gain a better understanding for the extent to which trends about frequency of use and type of use differ between mainstream youth and those showing higher levels of disconnectedness from school. Overall, the school attachment dimension of school bonding for Time 1 (2005/06) indicated that all three measures ranged from being weak to moderate in strength, though highly significant in their association to drug use at school, and slightly less so for drug use in the community. More specifically, school liking, closely followed by respect from adults, were the most robust predictors of current drug use at school among high school students.

School Involvement Dimensions

The following section highlights the results for school involvement in relation to drug use for the current year (2005/06). These are featured in Tables 4 to 6.

Skipped Class

Students were asked to indicate how often they skipped class. Table 4 illustrates a moderately strong and positive relationship ($r = .373$, $p = .001$) between skipping class and drug use. Among those who skipped class “More than once per week”, 33% did not use drugs at school, while 68% did. In contrast, among those who “Never” skipped a class 94% did not use drugs at school, while 6% did. Students who skipped class “more than once per week, were at least eleven times more likely to use drugs at school compared to those who never skipped class.

Table 4: Differences between students who reported on whether or not they skipped a class and drug use at Time 1 (2005/06).

Skipped a class	AT SCHOOL		IN THE COMMUNITY	
	Did Not Use Drugs	Used Drugs	Did Not Use Drugs	Used Drugs
Never	94%	6%	85%	15%
At least once this school year	82%	18%	61%	39%
About once per month	64%	36%	39%	61%
About once per week	61%	39%	31%	69%
More than once per week	33%	68%	16%	84%

Differences for school and community are significant at $p < .001$ level.

* Questionnaire item #21b (see Appendix A) ** $n = 2477$

A similar and even stronger relationship held true for skipping class and drug use behaviour in the community ($r = .449$, $p = .001$). Among those who skipped class “More than once per week”, 16% did not use drugs in the community, while 84% did. In contrast, among those who “Never” skipped class, 85% did not use drugs in the

community, while 15% did. Students who skipped class more than once per week were nearly six times more likely to use drugs in the community, compared to those who never skipped class.

When comparing drug use across context (from school to community) with respect to students skipping class behaviours, there was a greater relative rise in drug use, from use at school, to use in the community, among students who more involved in school. A reported rise of 150% across context occurred among those most involved, in comparison to a more modest 23% rise in reported use among those least involved.

Skipped all Day

Table 5 similarly outlines a moderately strong and positive relationship between the second negative indicator of school involvement, “skipping all day” and drug use at school ($r = .331$, $p = .001$). Among those who skipped all day “More than once per week”, 16% did not use drugs at school, while 84% did. In comparison, among those who “never” skipped all day, 89% did not use drugs at school, while 11% did. Students who skipped a day more than once per week were almost eight times more likely to use drugs at school compared to those who never skipped a day.

Table 5: Differences between students who reported on whether or not they skipped all day and drug use at Time 1 (2005/06).

Skipped all day	<u>AT SCHOOL</u>		<u>IN THE COMMUNITY</u>	
	Did Not Use Drugs	Used Drugs	Did Not Use Drugs	Used Drugs
Never	89%	11%	75%	25%
At least once this school year	70%	30%	47%	53%
About once per month	53%	47%	31%	69%
About once per week	44%	56%	19%	82%
More than once per week	16%	84%	12%	88%

Differences are significant at $p < .001$ level.

* Questionnaire item #21c. (Appendix A) ** $n = 2477$

A similar positive relationship held true for ‘skipping all day’ behaviour and drug use in the community ($r = .341, p = .001$). Among those who skipped all day at the rate of “More than once a week”, 12% did not use drugs in the community, while 88% did. In contrast, among those who “Never” skipped all day, 75% did not use drugs in the community, while 25% did. Students who skipped all day were nearly four times more likely to use drugs at school compared to those who never skipped a day.

Once again, when comparing drug use across context with respect to students’ skipping all day behaviours, there was a greater relative rise toward drug use in the community among students who had the highest level of involvement (175%) in comparison to those least involved (5%).

School Club or Group Participation

The third measure of involvement examined students’ responses to the statement, “How often have you participated in a school club or group”? Compared to skipping behaviours, Table 6 demonstrates a weaker, though still a significant inverse relationship

($r = -.135$, $p=.001$) between school club or group participation and drug use at school.

Among those who said they ‘never’ participated, 74% did not use drugs at school, while 26% did. In contrast, among those who said they participated “More than once per week, 89% did not use drugs at school, while 12% did. Students who were involved in school clubs or groups more than once per week were two times more likely to use drugs at school compared to those who were not involved in this way.

Table 6: Differences between students who reported on whether or not they participated in a school club or group and drug use at Time 1 (2005/06).

Participated in a school club or group	<u>AT SCHOOL</u>		<u>IN THE COMMUNITY</u>	
	Did Not Use Drugs	Used Drugs	Did Not Use Drugs	Used Drugs
Never	74%	26%	57%	43%
Once or twice	84%	17%	66%	34%
Once a month	84%	16%	67%	33%
About once a week	85%	15%	69%	31%
More than once per week	89%	12%	77%	24%

Differences are significant at $p<.001$ level.

* Questionnaire item #71a. (Appendix A)

** $n=2477$

A similar pattern held true for drug use in the community ($r = -.132$, $p=.001$).

Among those who ‘never’ participated in a school club or group, 57% did not use drugs in the community, compared to 43% who did. In contrast, among those who participated “More than once per week”, 77% did not use drugs in the community, while 24% did.

Students who were involved in school clubs or groups more than once per week were less than half as likely to use drugs in the community compared to those who were never involved in school clubs or groups.

When comparing drug use across context (from school to community) with respect to students participation in school clubs or groups, the linear pattern of the relationship does not follow the evenly stepped pattern of increase and decline that was observed in the previous two indicators of school involvement. Though generally similar in its direction, the greatest increase in drug use across context by level of involvement was between those who never participated at all (showing a rise of 65%), and those who participated minimally at the rate of about once per year (showing a rise of 100%).

This school involvement section for Time 1 highlights four patterns of association for school involvement and drug use for the current year (Time 1-2005/06). First, school involvement was inversely associated to drug use. Students who reported higher levels of school involvement measured by participating in a school club or group, and through non-participating forms of behaviour involving skipping class, and skipping all day were less likely to use drugs at school. Recalling that two of the three indicators of school involvement dimensions are negative measures of involvement, the tables correctly indicate positive relationships for non-participating behaviours due to their reverse-coded nature. Second, the same general pattern of association holds true for drug use in the community. Third, across all reported levels of school involvement, drug use was more likely to occur in the community. Fourth, students who were more involved at school were also more likely to report higher increases in drug use behaviour by context when comparing their drug use behaviour at school to drug use behaviour in the community. While general trends for school involvement were similar to those for school attachment, the school involvement dimension for Time 1 (2005/06) indicates that non-participating behaviours (class skipping, skipping all day) were even more powerful indicators of drug

use than were indicators of attachment. Participating in clubs or groups was weaker in comparison to skipping behaviours that were moderate to strong. For both dimensions of school bonding (school attachment, and school involvement), the predicted direction of the research hypothesis was confirmed, supporting the notion that school bonding is associated to current drug use.

Associations for School Bonding in Time 1 (2005/06) and Subsequent Drug Use in Time 2 (2006/07)

The previous section has highlighted measures of association for Time 1 (2005/06) between drug use and school bonding, using school attachment and school involvement variables. The next section will highlight the results of school bonding variables to determine whether school bonding is associated to drug use in the following year (Time 2 – 2006/07). The results of this one-year tracking process are presented in Tables 7-18.

School Attachment Dimensions

School Liking

The first two tables of this section outline the inverse relationship for the first indicator of school attachment, “I like school” for Time 1 (2005/06) and subsequent drug use at school ($r = -.092$, $p=.01$), and in the community ($r = -.075$, $p=.05$) for the following school year (Time 2 – 2006/07).

Table 7: Differences between students who reported on whether or not they liked school at Time (2005/06) and drug use *at school* at Time 2 (2006/07).

I like school	Did Not Use drugs	Used Drugs
Strongly Disagree	84%	16%
Disagree	89%	11%
Undecided	88%	12%
Agree	92%	9%
Strongly Agree	95%	5%

*Difference is significant at $p < .01$ level.

** Questionnaire item #29 (see Appendix A)

*** $n = 1578$

For drug use at school, Table 7 shows that among those who strongly disagreed with the statement, “I like school”, 84% did not use drugs in the following school year, while 16% did. In contrast, among those who strongly agreed with the statement, 95% did not use drugs in the following school year, while only 5% did. Students who had the lowest level of liking school were three times more likely to use drugs at school in the following year than those who had a high level of school liking.

Similarly, for drug use in the community, Table 8 shows the inverse relationship between the statement, “I like school” and drug use in the following year. However, in this context, students who had the lowest level of school liking were almost twice as likely to use drugs in the community one year later compared to students who had the highest level of school liking.

Table 8: Differences between students who reported on whether or not they liked school at Time (2005/06) and drug use *in the community* at Time 2 (2006/07).

I like school	Did Not Use Drugs	Used Drugs
Strongly Disagree	74%	26%
Disagree	76%	24%
Undecided	76%	24%
Agree	79%	22%
Strongly Agree	87%	14%

Difference is significant at $p < .05$ level.

* Questionnaire item #29 (see Appendix A) ** $n=1578$

Cross-context use of drugs, from school to community showed that students were more likely to use drugs in the community. Among those who strongly disagreed with the statement, “I like school” drug use was 16% at school compared to 26% in the community. By comparison, those who strongly agreed with the statement, drug use was 5% at school compared to 14% in the community.

Respect from Adults

The following two tables outline the inverse relationship between the second indicator of school attachment, “Adults in my school respect me” for Time 1 (2005/06) and subsequent drug use at school ($r = -.076$, $p = .001$), and in the community ($r = -.077$, $p = .05$ for Time 2 (2006/07)).

Table 9: Differences between students who reported on whether or not they felt adults in their school respected them at Time 1 (2005/06) and drug use *at school* at Time 2 (2006/07).

Adults in my school respect me	Did Not Use Drugs	Used Drugs
Strongly Disagree	73%	27%
Disagree	87%	13%
Undecided	89%	11%
Agree	91%	9%
Strongly Agree	93%	7%

Difference is significant at $p < .05$ level.

* Questionnaire item #35 (see Appendix A) ** $n=1578$

For drug use at school, Table 9 shows that among those who strongly disagreed with the statement, “Adults in my school respect me”, 73% did not use drugs in the following school year compared to 27% who did. In contrast, among those who strongly agreed with the statement, 93% did not use drugs in the following school year compared to 7% who did. Students who felt the least respected by adults at their school were nearly four times more likely to use drugs at school in the following school year than those who felt the most respected.

Similarly, for drug use in the community, Table 10 also shows the inverse relationship between the statement, “Adults at my school respect me” and subsequent drug use. However, in this context, students who felt the least respected by adults at their school were more than twice as likely to use drugs in the community in the following year, compared to students who felt the most respected.

Table 10: Differences between students who reported on whether or not they felt adults in their school respected them at Time 1 (2005/06) and drug use *in the community* at Time 2 (2006/07).

Adults in my school respect me	Did Not Use Drugs	Used Drugs
Strongly Disagree	66%	34%
Disagree	75%	26%
Undecided	76%	24%
Agree	79%	21%
Strongly Agree	84%	16%

Difference is significant at $p < .05$ level.

* Questionnaire item #35 (see Appendix A) **n=1578

Cross-context use of drugs, from use at school, to use in the community, showed that students were more likely to use drugs in the community. Among those who strongly disagreed with the statement, “Adults in my school respect me” in Time 1 (2005/06), drug use was 27% at school compared to 34% in the community. By comparison, those who strongly agreed with the statement, drug use was 7% at school compared to 16% in the community.

Ideas and Opinions

The following two tables outline the inverse relationship between the third indicator of school attachment, “My ideas and opinions are important to at least one adult in my school” for Time 1 (2005/06) and subsequent drug use at school ($r = -.076$, $p = .01$), and in the community ($r = -.063$, $p = .01$) for Time 2 (2006/07).

Table 11: Differences between students who reported on whether or not they felt their ideas and opinions were important to at least one adult in their school at Time 1 (2005/06) and drug use *at school* at Time 2 (2006/07).

My ideas and opinions are important to at least one adult in my school.	Did Not Use drugs	Used Drugs
Strongly Disagree	82%	18%
Disagree	80%	20%
Undecided	90%	10%
Agree	91%	9%
Strongly Agree	93%	8%

Difference is significant at $p < .01$ level.

*Questionnaire item #23 (see Appendix A) **n=1578

For drug use at school, Table 11 shows that among those who strongly disagreed with the statement, “My ideas and opinions are important to at least one adult in my school”, 82% did not use drugs the following school year compared to 18% who did. In contrast, among those who strongly agreed with the statement, 93% did not use drugs in the following school year compared to 8% who did. Students who strongly felt their ideas and opinions were not important to at least one adult at school were more than twice as likely to use drugs in the following school year, compared to those who strongly agreed that their views mattered.

Similarly for drug use in the community, Table 12 shows the inverse relationship between students reporting on “My ideas and opinions are important to at least one adult in my school” in Time 1 (2005/06) and subsequent drug use in the community. However, in this context, students who strongly felt their ideas and opinions were not important to at least one adult at school were more than twice as likely to use drugs in the community

in the following school year, compared to students who strongly felt their ideas and opinions mattered.

Table 12: Differences between students who reported on whether or not they felt their ideas and opinions were important to at least one adult in their school at Time 1 (2005/06) and drug use in the community at Time 2 (2006/07).

My ideas and opinions are important to at least one adult in my school.	Did Not Use drugs	Used Drugs
Strongly Disagree	61%	39%
Disagree	72%	28%
Undecided	79%	21%
Agree	78%	22%
Strongly Agree	83%	17%

Difference is significant at $p < .01$ level.

*Questionnaire item #23 (see Appendix A) **n=1578

Cross-context drug use from school to community showed that students are more likely to use drugs in the community. Among those who strongly disagreed with the statement, “My ideas and opinions are important to at least one adult in my school”, drug use was 18% at school compared to 39% in the community. By comparison, those who strongly agreed with the statement, drug use was 8% at school compared to 17% in the community.

This school attachment section for Time 1 to Time 2 highlights two general patterns in relation to drug use among students in the following year. First, all three measures of school attachment were weak, though significant, in their inverse relationship to subsequent drug use behaviour. Decreased levels of attachment to school, indicated by individuals’ liking for school, respect from adults at school, and perceptions that their ideas and opinions were important to at least one school adult, were linked to a rise in reported drug use for the following school year. Second, as was true for the Time 1

(2005/06) analysis, drug use was consistently higher in the community than at school across all levels of school attachment.

School Involvement Dimensions

The final six tables outline the relationship between the three behavioural variables representing school involvement for Time 1 (2005/06) and drug use for the following school year (Time 2 – 2006/07).

The following two tables outline the positive relationship between the first negative measure of school involvement, “Skipped a class” for 2006 and subsequent drug use at school ($r = .099$, $p = .001$), and in the community ($r = .187$, $p = .001$). Again, while positive in their association to the reverse-coded variable, they are consistent with the predicted inverse direction of the relationship between school bonding and drug use.

Table 13: Differences between students who reported on whether or not they skipped a class at Time 1 (2005/06) and drug use *at school* at Time 2 (2006/07).

Skipped a class	Did Not Use Drugs	Used Drugs
Never	92%	8%
Once this school year	90%	10%
Once per month	83%	17%
Once per week	77%	23%
More than once per week	80%	20%

Difference is significant at $p < .001$ level.

* Questionnaire item #21b (see Appendix A) * $n = 1578$

For drug use at school, Table 13 shows that among those who skipped a class “More than once per week”, 80% did not use drugs in the following school year compared to 20% who did. In contrast, among those who “Never” skipped a class, 92%

did not use drugs in the following year compared to 8% who did. Students who skipped class more than once per week were two and a half times more likely to use drugs at school in the following year, compared to students who never skipped a class.

Similarly, for drug use in the community, Table 14 also shows the positive relationship between “skipping a class” in Time 1 (2005/06) and subsequent drug use in the community in Time 2 (2006/07). However, in this context, students who skipped class more than once per week were nearly four times more likely to use drugs in the community in the following year, compared to students who never skipped a class.

Table 14: Differences between students who reported on whether or not they skipped a class at Time 1 (2005/06) and drug use *in the community* at Time 2 (2006/07).

Skipped a class	Did Not Use Drugs	Used Drugs
Never	84%	16%
Once this school year	72%	28%
Once per month	63%	37%
Once per week	70%	30%
More than once per week	40%	60%

Difference is significant at $p < .001$ level.
 Questionnaire item #21b (see Appendix A) $n=1578$

Cross-context use of drugs, from school to community shows that students were more likely to use drugs in the community. Among those who skipped class more than once per week, drug use was 20% at school compared to 60% in the community. By comparison, those who never skipped class, drug use was 8% compared to 16% in the community.

Skipped all Day

The following two tables outline the positive relationship between the second negative measure of school involvement, “Skipped all day” for Time 1 (2005/06) and subsequent drug use at school ($r = .072$, $p = .05$), and in the community ($r = .120$, $p = .001$) for Time 2 (2006/07).

Table 15: Differences between students who reported on whether or not they skipped all day at Time 1 (2005/06) and drug use at school at Time 2 (2006/07).

Skipped all day	Did Not Use Drugs	Used Drugs
Never	91%	9%
Once this school year	88%	12%
Once per month	83%	18%
Once per week	80%	20%
More than once per week	50%	50%

Difference is significant at $p < .05$ level.

* Questionnaire item #21c (see Appendix A) * $n = 1578$

For drug use at school, Table 15 shows that among those who skipped all day “More than once per week”, similar numbers were reported between those who used drugs and those who did not. However, among those who “Never” skipped all day, 91% did not use drugs one year later compared to 9% who did. Students who skipped all day more than once per week were almost six times more likely to use drugs at school one year later than those who skipped all day more than once per week.

Similarly, for drug use in the community, Table 16 shows the positive relationship between those who “Skipped all day” in Time 1 (2005/06) and subsequent drug use in the community for the following school year. However, in this context, students who skipped

a day the most were five times more likely to use drugs in the community in the following year, compared to students who never skipped a day.

Table 16: Differences between students who reported on whether or not they skipped all day at Time 1 (2005/06) and drug use in the community at Time 2 (2006/07).

Skipped all day	Did Not Use Drugs	Used Drugs
Never	80%	20%
Once this school year	70%	30%
Once per month	64%	37%
Once per week	80%	20%
More than once per week	-	100%

Difference is significant at $p < .001$ level.
Questionnaire item #21c (see Appendix A) $n = 1578$

Cross-context use of drugs, from use at school to use in the community, showed students being more likely to use drugs in the community. Among those who skipped a day more than once per week, drug use was 50% at school and 100% in the community. By comparison, among those who never skipped a day, drug use was 9%, compared to 20% in the community.

School Club or Group

The final two tables outline the inverse relationship between the third indicator of school involvement, “Participated in a school club or group” for Time 1 (2005/06) and subsequent drug use at school ($r = -.094$, $p < .001$), and in the community ($r = .060$, $p < .067$ for Time 2 (2006/07)).

Table 17: Differences between students who reported on whether or not they participated in a school club or group at Time 1 (2005/06) and drug use *in school* at Time 2 (2006/07).

Participated in a school club or group	Did Not Use Drugs	Used Drugs
Never	87%	13%
Once this school year	90%	10%
Once per month	87%	13%
Once per week	93%	7%
More than once per week	96%	4%

Difference is significant at $p < .001$ level.
 Questionnaire item #71a (see Appendix A) $n=1578$

For drug use at school, Table 17 shows that among those who “Never” participated in a school club or group” 87% did not use drugs in the following school year while 13% did. In contrast, among those who participated “More than once per week”, 96% did not use drugs one year later compared to 4% who did. Students who never participated in school clubs or groups were at least three times more likely to use drugs at school the following year than those who participated “More than once per week”. While the inverse pattern was consistent with general findings for this study at either end of the school involvement scale, mid level associations did not follow the regular stepped pattern of increase and decline relative to drug use.

For drug use in the community, Table 18 illustrates only a marginally related association between participation in a school club or group and subsequent drug use in the community ($r = -.097, p < .067$). Though the Chi Square tests of significance did not meet the .05 level of stringency to determine whether the relationship was due to random chance, the same general pattern of direction is there, as in the case for the skipping class, and for skipping all day behaviours.

Table 18: Differences between non-drug using students who report on whether or not they participated in a school club or group at Time 1 (2005/06) and drug use *in the community* at Time 2 (2006/07).

Participated in a school club or group	Did Not Use Drugs	Used Drugs
Never	75%	25%
Once this school year	79%	21%
Once per month	74%	26%
Once per week	82%	18%
More than once per week	83%	17%

Difference not significant at .05
 Questionnaire item #23 (see Appendix A) n=1578

In this final item, cross-context drug use from school to community also showed that students were more likely to use drugs in the community over school. Among those who never participated in school clubs or groups, drug use was 13% at school compared to 25% in the community. By comparison, those who participated more than once per week, reported drug use at 4% at school, compared to 17% in the community.

This school involvement section for the time series examination indicated that school involvement was inversely and significantly related to subsequent drug use. When comparing the strength of their relationship to the first phase of the analysis for Time 1 (2005/06), the magnitude of these relationships was lower as a whole. This drop in magnitude may indicate the absence of drug use effects on students' school bond by having controlled for drug use in year 1 to explore the occurrence of a directional element for the relationship. Though covariability between school bonding and drug use was weak in this examination, the predicted direction of the hypothesis, stating that there would be a difference in the distribution of drug use among categories of students by level of social bonding to school, was confirmed.

CHAPTER 6: DISCUSSION AND CONCLUSION

This study adopted a school bonding perspective based on Hirschi's Social Bonding Theory utilizing attachment and involvement dimensions for its application to the school context. The intent was to better understand the potential role of schools in promoting positive youth development by examining the extent to which specific school factors were associated to drug use. As a derivative of Social Bonding Theory, school bonding was applied at the nexus of the individual and the school, acknowledging schools as a primary socializing institution for youth. The study had two primary objectives: to confirm the relationship between school bonding and current drug use, using cross-sectional data for Time 1 (2005/06); and, then to elaborate on this relationship with a view to examine school bonding as a preceding condition to drug use using longitudinal data from the Safe School Social Responsibility Survey for Secondary Students. The theoretical and practical implications for school bonding and its association to drug use are summarized below.

Objective 1

The findings confirmed an inverse relationship between current drug use and school bonding. These findings support Hirschi's Social Bonding Theory that argues delinquency is more likely to occur when the individual's bonds to society are weak or broken (Hirschi, 1969; cited in Moyer, 2001). Contrary to previous research (Eith, 2004) identifying school attachment as the most robust element of the four social bonding

elements, this study found school involvement to be the more powerful predictor of the two elements under study.

School Attachment

School attachment showed a predictable increase in drug use as students' level of school attachment decreased. More specifically, lower levels of school attachment, using three items that included school liking, feeling respect from adults at school, and feeling as though one's ideas and opinions were important, resulted in more students reporting current drug use at school and in the community. Of the three attachment measures, both a general liking for school and students feelings of respect were the stronger of the three measures, and similar in their weak to moderate inverse association found for drug use at school ($r = -.197$ and $r = .184$ respectively), and for drug use in the community ($r = -.189$ and $r = .178$ respectively). Students who liked school the least were three times more likely to use drugs at school, compared to those who liked it the most. Students who felt least respected by adults in their school were nearly four times more likely to use drugs at school, compared to those who felt a high degree of respect.

These findings re-affirm the constructive and protective role of schools, including the need for caring interpersonal relationships. Past research has already indicated that higher rates of delinquency occur among students who have less positive psychological orientations to the school (Eith, 2004). These findings also substantiate Hirschi who stated that students who were not attached to school would have a general dis-liking for it (Diaz, 2005), and be more likely to commit acts of delinquency (including drug use), if connections to adult support systems were weak or broken (Hirschi, 1969).

Slightly more than half of the grade eight to eleven students in the sample were attached to school through positive or pro-social connections with the adults, and approximately two-thirds of students said they liked school. These findings suggest that many students are not attached through positive or pro-social relations at school, and therefore more vulnerable to delinquency. Among the 23% of students who did not like school, about half also did not have positive or pro-social connections with adults at their school. Further analysis would be required to understand how this may be related to grade, gender, or other demographic variables of interest.

Involvement

While school attachment provided a psychological context for understanding drug use, school involvement linked school bonding directly to behavioural measures. First, the majority of students (72%) never skipped school for an entire day. However, this was not the case for skipping a class where slightly more than half of the students reported skipping class with some regularity (once per month or more). Of those, 11% skipped class once per week or more. In its association to drug use, there were stepped linear increases in drug use as school bonding decreased. This appears to be important when considering the moderate to strong association between school absenteeism and drug use. While all three measures of school involvement (skipping all day, skipping a class, participating in a school club or group) were significant, skipping class was the most powerful predictor of drug use at school ($r=.373$, $p<.001$), as well as for drug use in the community ($r=.449$, $p<.001$). This was followed by 'skipping all day' where the association was more moderate for drug use at school ($r=.331$, $p<.001$), and for drug use in the community ($r=.341$, $p<.001$). Students' lack of involvement in pro-social school

activities predicted drug use in the following school year even more powerfully than school attachment indicators.

Objective 2

While this study was unable to determine whether low school bonding caused drug use, or whether drug use contributed to low school bonding, there is reason to believe in their influencing effect. This portion of the analysis provides initial evidence that school bonding is a preceding condition to drug use for both school attachment and school involvement measures. This occurred by examining among a sub population of students who identified that they had not used drugs in Time 1 (2005/06), and then re-examining the strength and direction of the association between school bonding for Time 1 (2005/06) and any subsequent drug use behaviour (in Time 2 - 2006/07).

School Attachment

Concerning school attachment as a preceding condition to drug use, all three measures of school attachment (school liking, respect from adults, and student perceptions that their opinions and ideas were important) showed a relationship to subsequent drug use. While weak in magnitude, school liking was the most robust predictor of drug use at school ($r = -.092$, $p < .01$), and drug use in the community ($r = -.075$, $p < .05$) of the three. In addition, cell counts for the latter two measures limited the study from drawing conclusions that were more confident. To do so, further research using larger sample sizes would be required.

Involvement

For school involvement measures, early indications showed that all three measures of school involvement (skipping class, skipping all day, participating in school club or group) predict drug use in the following year. However, the only measure that had a sufficiently large cell count for confirming a chi square level of significance was for the variable 'participating in a club or group'. In this instance, there was a weak, though significant relationship for drug use at school ($r = -.097$, $p = <.001$). For drug use in the community the level of significance fell outside the .05 level required for the social sciences ($r = -.062$, $p = <.067$) (Gravetter & Wallnau, 2002). Concerning skipping behaviours across time, given that the relationship fell in the same expected direction for drug use in either context (school or community), and that the strength of the direction for the Time 1 analysis was powerful and significant, it is reasonable to expect that if a larger sample size had been available, a more confident conclusion concerning this relationship might be made.

Concerning the second objective of the study, it was interesting to note that the associations between school bonding, both for school attachment and school involvement measures, were weaker overall in their relationship to subsequent drug use. This suggests the presence of a possible effect from having controlled for the reciprocal and reinforcing negative effect of drug use on school bonding by having isolated the sub-sample of students who had not used drugs in Time 1 (2005/06) for the analysis. This was noted when comparing the attachment measure of school liking between Time 1 (2005/06) and Time 2 ($r = -.197$ vs. $r = -.092$ respectively). This was also the case for school involvement. For example, skipping class behaviour for Time 1 showed a similar trend between the Time 1 to Time 2 analysis ($r = .373$ vs. $r = .115$ respectively). Taken together, these

patterns reinforce the idea that early protection to avoid and interrupt the compounding effect of risk from drug use is important. When students are not embedded in cohesive and supportive pro-social networks, the magnification of risk from potential negative peer, family, school and community factors may allow problems to gain momentum in students' lives (Health Canada, 2001).

The results for both objectives also confirmed the existence of a contextual effect related to school bonding and drug use. First, drug use was higher in the community overall. Second, students who were less bonded to school appeared also to be less discerning about the setting in which they used drugs, whether drug use occurred at school or in the community. Social Bonding Theory was tested as an independent variable linked to drug use, based on the assumption that schools are conventional sites where youth are under the care and supervision of adults, and presupposed that students' time was predominantly occupied by involvement in learning tasks (Hawkins & Weis, 1985). Since students' experiences in the broader community may be less structured, less supervised and supported, and less timetabled, the community context stands in contrast to school as students make decisions and find opportunities to participate in drug use-related activities. This draws attention to the importance of developing community-wide approaches for encouraging pro-social behaviour.

Implications for Schools

There are also practical implications. Schools, as primary socializing institutions, play a central role in the development of youth (Antro-Gonzalez & De Jesus, 2006; Hawkins, Catalano & Catalano, 1995; Hirschi, 1969; cited in Moyer, 2001). The notion

of school bonding emphasizes the need for schools to develop a systemic prevention strategy built on a pro-active model of health, support, and engagement (Hawkins, Catalano & Catalano, 1995). This stands in contrast to current models in use that are largely oriented toward identifying and reacting to the ‘unruly’, delinquent, or problematic student (McCrystal, Percy & Higgins, 2007).

Developing a more ‘connected’ school is a modifiable factor (Thomas & Smith, 2004). When the philosophical orientation of a school is based on the deficit model, and when alienating and exclusionary practices, such as school suspensions or other punitive forms of discipline, become the dominant response to delinquency, social programs of a preventative nature are more likely to fail (Hawkins, Arthur & Catalano, 1995).

Braithwaite (1999) reiterates the importance of adopting relational philosophies in schools, based on a wide body of evidence that is showing student engagement and school belonging to be an effective and proactive prevention strategy (cited in McCrystal, Percy & Higgins, 2007). Increasingly, school exclusion is being viewed as ‘bad policy’ because it abandons youth who are already at higher risk for using drugs, and among those who are at increased risk for long term problems (Lewis, Sugai & Colvin, 1998; McCrystal, Percy & Higgins, 2007). Shifting a disproportionate level of responsibility to the individual in the absence of social support suggests that drug use is largely a matter of individual choice and freewill. This ultimately minimizes the responsibility that schools and government have as “duty bearers” to support families in meeting the task of raising children to reach their full potential (Department of Canadian Heritage, 1991).

From this study, it became evident that school attachment indicators provided a perceptual indicator of risk; while school involvement indicators marked specific

behaviours for mitigating risk as a matter of daily prevention practice. This study confirms current research identifying that students who report a 'connected education' - those who found their school environment to be socially supportive, and who liked school - were less likely to deviate from pro social norms (Zyngier, 2003). Antrop-Gonzales and DeJesus (2007) draw attention to the reciprocal and mutually beneficial nature of secure relational attachments at school. This is influenced by the degree to which students experience high quality interactions with school staff by observing their teachers support them through fair and respectful processes, and having teachers empower students in ways that help them attain educational standards in a consistent fashion (Butler, Leschied & Fearon 2007; Klen & Connell, 2004). Schools can alleviate risk for drug use by providing learning opportunities that deliver a sense of meaning, purpose, and sufficient challenge to students' lives (Larson, 2001). The literature also tells us that this is most likely to occur in schools that can provide an enjoyable learning environment, where relationships between students and teachers are supportive, where school staff and students participate jointly in school activities, and where students are given opportunities to develop skills through leadership roles (Henry & Slater, 2007). When students do not feel secure, included, and supported toward meeting educational standards, their motivation to engage in pro-social behaviour is undermined (Goodenow, 1992; Klem & Connel, 2004).

This research brought attention to specific behavioural markers, such as skipping class, and skipping an entire day of school, as an aspect of school bonding. These variables not only provided the strongest predictor among those examined for current and eventual drug use behaviour, but also delineated behavioural markers for including in risk

assessment strategies. Previous research has linked school absenteeism to a variety of risk behaviours including drug and alcohol use, violence, risky sexual activity, and unintentional injury (Eaton, Brener & Kann, 2008). This was the case even under conditions where students had received prior permission from adults to be absent. For reasons beyond preventing substance use alone, it is critical for schools to recognize absenteeism as a potential marker for intervention due to its predictable association to drug use. Eaton, Brener & Kann's study also draw links between absenteeism and physical and mental health issues, negative school environments, dysfunctional home environments, poverty, and low academic motivation. The most salient efforts to improve student attendance occurred through coordinated and comprehensive intervention designs that drew involvement from students, parents, educators, and the broader community (Epstein & Sheldon, 2002; cited in Eaton, Brener & Kann, 2008; Hawkins, Arthur & Catalano, 1995).

Schools are in a prime position to coordinate support through their centralized location (Eaton, Brener & Kann, 2008; Hawkins, Arthur & Catalano, 1995). The Social Development Model presents a health framework for strengthening the protective and functional role of schools (Hawkins & Weis, 1985; Henry & Slater, 2007). Experts (Hawkins & Weis, 1985) maintain the most significant targets for intervention are at the family, the school, and peer level, depending on the developmental stage of the child. Accordingly, in succession, families are the most appropriate from early childhood to early adolescence; schools are the most suitable throughout the educational years, and peers become particularly relevant during adolescence. Within each unit, positive youth development is said to result when youth are given the opportunity to become involved in

conforming activities, as they are able to develop the skills and attitudes necessary for successful involvement in those activities, and when they are recognized for behaving in socially approved ways. The resulting growth of social bonds involving attachment to pro-social others not only engenders belief in a conventional order, but also increases commitment to conforming behaviour, while decreases the likelihood of developing associations to delinquent peers, and eventual delinquency (Hawkins & Weis, 1985).

The prevalence of drug use among youth holds significant challenge for schools. Although youth who were more socially bonded to school in this study were less likely to use drugs, the research states that drug use has made its way into mainstream youth culture to the degree that its use is no longer limited to delinquent or disenfranchised youth (CCSA, 2007b; McCrystal, Percy & Higgins, 2007). Students may be able to comply with the norms while in school as a way to get through the day, however, opportunities for using drugs in the community may provide an escape from a general dissatisfaction related to boredom levels at school (Larson, 2000). Being surprised by the sheer numbers of students who reported a high degree of dissatisfaction with their school experience, Larson captured the sentiment among sufficient numbers of students who claim they are “being trapped in the present, waiting for someone to prove to them that life is worth living” (2000:170). This suggests deficiencies in positive youth development (Larson, 2000; Hawkins, Arthur & Catalano, 1995).

Further research is needed to understand how school bonding interacts with competing external pressures, including the extent to which drug use among mainstream youth exists. It appears as though for at least a proportion of the student population, substance use may be a way of enhancing mood, dealing with dissatisfaction, asserting

independence, or bringing a sense of pleasure to life even among those from the mainstream (CCSA, 2007b). While adolescence is acknowledged to be a time of risk-taking, recent literature acknowledges the normalisation of drugs as “reflect[ing] the...emergence of a new, post-modern, social order in which young people are, without doubt, the prime users of illicit drugs” (Shiner & Newburn, 1999; cited in McCrystal, Percy & Higgins 2007:38). Taken together, the growing normalisation of drugs, along with student dissatisfaction about their educational experiences, sets up a climate of risk that can be observed even among those that society might least expect. This suggests that primary youth serving structures, such as schools, should continue to evolve policies in a way that engenders school bonding as a way to provide resiliency against the use of drugs.

Limitations

Although this study offered new insights, several limitations are important to recognize. The first limitation concerns sample characteristics and the extent to which the findings can be generalized to the broader population of youth. Data was collected through a blanket survey process at school for those attending and willing to complete the questionnaire. Accordingly, it fails to account for street youth, those who have dropped out of school, youth on probation, and non-English speaking students. In addition, of the 2,477 secondary students from both urban and rural schools, the sample used in this analysis isolated those who chose to complete the privacy code in the same manner for both years. Arguably then, the sample is skewed in favour of students who may be more bonded to school from the outset for various reasons. This may have implications for

assessing the relationship between school bonding and drug use given that survey participation is form of ‘school involvement’ itself. However, this may also suggest that the findings in this study are conservative in demonstrating the magnitude of the relationship between school bonding and drug use.

An additional limitation worth noting is that this study has only considered school bonding components using three measures each from the school attachment domain (school liking, respect from adults at school, and recognition from a school adult concerning the students’ ideas and opinions), and the school involvement domain (skipping class, skipping a day, and participating in school groups of clubs). This limitation is due to the use of using secondary data to answer the research questions. As such, further research would be required in order to conduct a more comprehensive examination of the school bonding notion using elements from Social Bonding Theory.

Conclusion

This study provided evidence in support of the proposition that school bonding, examining school attachment and school involvement, is a predictor of both current and future drug use. It would appear as though healthy relationships are at the foundation of pro-social individuals and communities, while participation in school activities provides a venue for developing, maintaining, and strengthening those ties. While a significant proportion of youth across grades eight to eleven reported the use of drugs, the focus of this study was to gain a better understanding of school-related factors that could mitigate drug use and increase our understanding for the role of schools in facilitating the well-being of youth.

Though this study was unable to determine causality according to the three specific criteria outlined by Paul Lazarsfeld (1959; cited in Babbie, 2001), it has been able to establish that a statistically significant inverse relationship exists between at least two components of Hirschi's Social Bonding Theory and drug use. It further determined that this relationship also holds true within a temporal analytic research design in which school bonding became a preceding condition to drug use among a sub-sample of school youth. While the relationship between these two variables was weaker using an across time analysis, it nonetheless suggested that schools, while not alone in their responsibility to address drug use, have an important role to play in preventing current and future drug use.

Society's investment in promoting high quality educational environments becomes apparent when noting the far-reaching costs of drug use (CCSAb, 2007; Health Canada, 2001). This suggests that schools should be encouraged to, and supported in, making further investments to improve processes, and enhance programs that, promote positive engagement and community building in schools (Payne, Gottfredson & Gottfredson, 2003). Research should also continue to identify the particular mechanisms and programs that can assist schools for enhancing their capacity to facilitate positive youth development, in particular, for those most at risk. Experiencing social and educational support is already noted for its ability to contribute to a more comprehensive scaffolding to enable all youth to develop within pro-social climates of care (Bonny et al. 2000).

The research findings also suggest that rule-breaking behaviour, such as skipping school, may be more effectively viewed within a risk perspective for which protective

intervention strategies form a best response (Braithwaite, 1999; Hawkins, Arthur & Catalano, 1995). It would appear that interventions for disenfranchised youth can realize greater gains by strengthening the psychological connections that youth have with adults at school. While school curriculum and programming appear to reduce risk for drug use at school, it is also important to implement community models that embrace youth engagement and facilitate social support in response to drug use in the community. Schooling continues to be one of the most important investments that society can offer its youth for a better future, while drug use may well symbolize the destruction of that goal.

References

- Adlaf, E., & Racine, S. (2005). Alcohol and other drugs. In Health Canada (Ed.), *2002 Youth Smoking Survey Technical Report*. Ottawa: Ministry of Supply and Services Canada. Retrieved January 9, 2008, from http://www.hc-sc.gc.ca/hl-vs/alt_formats/hecs-sesc/pdf/pubs/tobac-tabac/yss-etj-2002/chap-11-eng.pdf.
- Akers, R. & Lee, G. (1999). Age, social learning and social bonding in adolescent substance use. Retrieved October 15, 2007, from http://digitalcommons.utep.edu/cgi/viewcontent.cgi?article=1005&context=gang_lee
- Anderman, L. (2003). Academic and social perceptions as predictors of change in middle school students' sense of school belonging. *Journal of Experimental Education*, 72(1), 5-22. Retrieved on May 5, 2008 from ERIC database.
- Antrop-Gonzalez, R. & De Jesus, A. (2006). Toward a theory of critical care in urban small school reform: examining structures and pedagogies of caring in two Latino community-based schools. *International Journal of Qualitative Studies in Education*, 19(4), 409-433. [Electronic version]. Retrieved November 15, 2007, from ERIC database.
- Babbie, E. (2001). *The Practice of Social Research*. 9th ed. Toronto: Nelson Thomson Learning.

- Bonny, A., Britto, M., Klostermann, B., Hornung, R., & Slap, G. (2000). School disconnectedness: Identifying adolescents at risk. *Pediatrics*, *106*. Retrieved January 5, 2007 from <http://www.pediatrics.org/cgi/content/full/106/5/1017>
- Butler, S., Leschied, A., & Fearon, P. (2007). Antisocial beliefs and attitudes in pre-adolescent and adolescent youth: The developing of the antisocial beliefs and attitudes scales (ABAS). *Journal of Youth Adolescence*. *36*(8), 1058-1071.
- Canadian Centre on Substance Abuse. (2007a). A drug prevention strategy for Canada's youth. Retrieved March 30, 2008, from <http://www.ccsa.ca/NR/rdonlyres/EC53A270-E4C5-46B0-9650-AD137DB63E9F/0/ccsa0115222007e.pdf>
- Canadian Centre on Substance Abuse. (2007b). Substance abuse in Canada: Youth in focus. Ottawa, ON: Canadian Centre on Substance Abuse. Retrieved March 30, 2008, from <http://www.ccsa.ca/NR/rdonlyres/5D418288-5147-4CAC-A6E4-6D09EC6CBE13/0/ccsa0115212007e.pdf>
- Canadian Centre on Substance Abuse. (2007c). A constant presence in a changing field. 2006-2007 Annual Report, Ottawa, ON. 2006-2007 Annual Report. Ottawa, ON.
- Canadian Health Network. (2007). *Growing up, taking risks*. Public Health Agency of Canada. Retrieved December 12, 2007, from <http://www.canadian-health-network.ca/servlet/ContentServer?cid=1172770076956&pagename=CHN-RCS/CHNResource/CHNResourcePageTemplate&c=CHNResource>

Centre for Addiction and Mental Health. (2008). Defining addiction, dependence and abuse. Retrieved October 1, 2008 at http://www.camh.net/Publications/Resources_for_Professionals/Pregnancy_Lactation/defining_addiction.html.

Cohen, I., Plecas, D., & Watkinson, A. (2005). A review of the research on the Drug Abuse Resistance Education (D.A.R.E.) program. Abbotsford: University of the Fraser Valley, School of Criminology and Criminal Justice.

Collier, M. (2006). A structure for caring in schools. *Journal of Human Behaviour in the Social Environment*, 13(4), 73-83.

Currie, C., Roberts, C., Morgan, A., Smith, R., Settertobulte, W., Samdal, O., Barnekow, R. (2004). Young people's health in context: Health behaviour in school-aged children (HBSC). International Report from the 2001/2002 Survey: World Health Organization; 2004. Health Police for Children and Adolescents, No. 4. [Electronic version]. Retrieved October 28, 2007, from http://www.euro.who.int/eprise/main/who/informationresources/publications/catalogue/20040518_1.

- DeWit, D., Akst, L., Braun, K., Jelley, J., Lefebvre, L., McKee, C., Rye, B., & Shain, M. (2002). Sense of school membership: A mediating mechanism linking student perceptions of school culture with academic and behavioural functioning. *Centre for Addiction and Mental Health*. Retrieved February 2007 from http://www.camh.net/About_Addiction_Mental_Health/Child_Youth_Family_Resources/school_culture_report.pdf .
- Department of Canadian Heritage (1991). *Convention on the Rights of the Child* . Human Rights Program Publication No. S2-210/1991E). Hull QC: Minister of Supply and Service Canada.
- Diaz, J. (2005). School attachment among Latino youth in rural Minnesota. *Hispanic Journal of Behavioural Sciences*, 27(3), 300-318.
- Eaton, D., Brener, N., & Kann, L. (2008). Associations of health risk behaviours with school absenteeism. Does having permission for the absence make a difference? *Journal of School Health*, 78(4), 223-229.
- Eith, C. (2005). Students, schools, and the social bond: An analysis of school bonding from elementary to high school. *Dissertation Abstracts International*, 66(5), 1964-A.
- Enomoto, E. (1997). Schools as nested communities. *Urban Education*, 32(4), 512-531.
- Faircloth, B., & Hamm, J. (2005). Sense of belonging among high school students representing 4 ethnic groups. *Journal of Youth and Adolescence*, 34(4), 293-309.

- Frey, L., Botan, C., & Kreps, G. (1999). *Investigating communication: An introduction to research methods*. NJ: Allyn & Bacon.
- Gandhi, A., Murphy-Graham, E., Petrosino, A., Chrismer, S., & Weiss, C. (2007). The Devil is in the details: Examining the evidence for “proven” drug abuse prevention programs. *Evaluation Review*, 31(1), 43-74. Retrieved September 15, 2007 from Sage Publication database.
- Garcia-Reid, P., Reid, R., & Peterson, N. (2005). School engagement among Latino youth in an urban middle school context. *Education and Urban Society*, 37(3), 257-275.
- Goodenow, C. (1992). *School motivation, engagement, and sense of belonging among urban adolescent students*. Paper presented at the Annual Meeting of the American Educational Research Association, San Fransisco, CA. 1-30. Retrieved April 2, 2007, from http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/22/5a/2c.pdf
- Gottfredson, M., & Hirschi, T. (1990). *A General Theory of Crime*. Stanford, CA: Stanford University Press.
- Gravetter, F., & Wallnau, L. (2002). *Essentials of Statistics for the Behavioural Sciences*. (4th ed.). Pacific Grove, CA: Wadsworth.

- Hall, W., Doran, C., Degenhardt, L. & Shepard, D. (2006). "Illicit Opiate Abuse". In *Disease Control Priorities in Developing Countries* (2nd ed.). 907-932. New York: Oxford University Press. Retrieved June 16, 2007 from <http://www.dcp2.org/pubs/DCP/48/FullText>
- Hawkins, J., & Weis, J. (1985). The social development model: An integrated approach to delinquency prevention. *Journal of Primary Prevention*, 6(2), 73-97.
- Hawkins, J., Arthur, M., & Catalano, R. (1995). Preventing substance use. *Crime and Justice. Building a Safer Society: Strategic Approaches to Crime Prevention*. Retrieved December 1, 2007 from <http://www.jstor.org/cgi-bin/jstor/printpage/01923234/ap040019/04a00080/0.pdf?backcontext=page&download=Acrobat&config=jstor&userID=c6a2600d@ucfv.ca/01c0a80a6800501d1fe81&0.pdf>
- Health Canada (2001). *Preventing substance use problems among young people: A compendium of best practices*. Canadian Centre on Substance Abuse for the Office of Canada's Drug Strategy. Retrieved on December 1, 2007 from http://www.hc-sc.gc.ca/hl-vs/alt_formats/hecs-sesc/pdf/pubs/adp-apd/prevent/young-jeune_e.pdf
- Henry, K. L., & Slater, M. D. (2007). The contextual effect of school attachment on young adolescents' alcohol use. *Journal of School Health*, 77(2), 67-74.
- Hirschi, T. (1969). *Causes of Delinquency*. New Brunswick, NJ: Transaction Publishers.

- Hoeve, M., Smeenk, W., Loeber, R., Stouthamer-Loeber, M., van der Laan, Peter H., Gerris, J. and Dubas, J. (2007). Long-term effects of parenting and family characteristics on delinquency of male young adults. *European Journal of Criminology*, 4(2) 161-194. Retrieved on January 16, 2008 from Sage Publication Database.
- Hoppe, M., Wells, E., Haggerty, K., Simpson, E., Gainey, R., & Catalano, R. (1998). Bonding in a high-risk and a general sample of children: Comparison of measures of attachment and their relationship to smoking and drinking. *Journal of Youth and Adolescence*, 47(1), 59-81.
- Hotton, T., & Haans, D. (2004). Alcohol and Drug Use in Early Adolescence. Health Reports, 15(3). *Statistics Canada, Catalogue 82-003*. Retrieved September 12, 2007 from <http://www.statcan.ca/english/studies/82-003/archive/2004/15-3-a.pdf>.
- Hunt, G., Evans, K., & Kares, F. (2007). Drug use and meanings of risk and pleasure. *Journal of Youth Studies*, 10(1), 73-96.
- Hwang, S., & Akers, R. (2003). Substance use by Korean adolescents: A cross-cultural test of social learning, social bonding, and self-control theories. In R. Akers & G. Jensen (Eds.). *Social Learning Theory and the explanation of crime*. (Vol. 11). P. 39-63. Rutgers, New Jersey:Transaction.
- Jarvinen, M., & Gundelach, P. (2007). Teenage drinking, symbolic capital and distinction. *Journal of Youth Studies*, 10(1), 55-71.

- Johnson, L., O'Malley, P., Bachman, J., & Schulenberg, J. (2006). *Monitoring the Future national survey results on drug use: Overview of key findings 2006*. (NIH Publication No. 07-6202).
- Kane, J. (2006). School exclusions and masculine, working-class identities. *Gender and Education, 18*(6), 673-685.
- Katz, M., Noddings, N., & Strike, K. (1999). *Justice and caring: The search for common ground in education*. New York: Teachers College Press.
- Klem, A., & Connell, J. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health, 74*(7) 1-20.
- Kohen, D., Dahinten, V., Leventhal, T., & McIntosh, C. (2008). Neighborhood disadvantage: pathways of effects for young children. *Child Development, 79*(1), p. 156-169.
- Krohn, M., Lizotte, A., & Perez, C. (1997). The interrelationship between substance use and precocious transitions to adult statuses. *Journal of Health and Social Behaviour, 38*(1), 87-103.
- LaGrange, H., Pandina, R. and LaGrange, W. (2006). Longitudinal predictors of serious substance use and delinquency. *Criminology, 25*(3), p. 715-740. Retrieved February 19, 2008 from Wiley Interscience at <http://www3.interscience.wiley.com/journal>
- Larson, R. (2000). Toward a psychology of positive youth development. *American Psychologist, 55*(1), 170-183.

- LaRusso, M., Romer, D. & Selman, R. (2007). The roles and perspectives of school mental health professions in promoting adolescent mental health. In D.L. Evans, E.B. Foa, R.E. Gur, H. Hendin, C.P. O'Brian, M. E.P.Seligman, & B.T. Walsh (Eds.), *Treating and preventing adolescent mental health disorders* (pp. 579-596). New York: Oxford University Press. Retrieved February 19, 2008 from <http://amhi-treatingpreventing.oup.com/anbrg/public/content/mentalhealth/9780195173642/toc.html>
- Lewis, T., Sugai, G., & Colvin, G. (1998). Reducing problem behaviour through a school-wide system of effective behavioural support: Investigation of a school-wide social skills training program and contextual interventions. *School Psychology Review*, 27(3), p.446-459.
- McCrystal, P., Percy, A., & Higgins, K. (2007). Exclusion and marginalization in adolescence: The experience of school exclusion on drug use and antisocial behaviour. *Journal of Youth Studies* 10(1), 35-54.
- McLaughlin E. & Muncie, J. (Ed.). (2006). *The SAGE dictionary of criminology*, (2nd Ed.). Thousand Oaks: Sage.
- Ma, X. (2003). Sense of belonging to school: Can schools make a difference? *Journal of Educational Research*, 96(6), p. 340-349.
- Maddox, S., & Prinz, R. (2003). School bonding in children and adolescents: Conceptualization, assessment, and associated variables. *Clinical Child and Family Psychology Review*, 6(1), 31-49.

- Marsiglia, F., Miles, B., & Dustman, P. (2003). Ties that protect: An ecological perspective on Latino/a urban pre-adolescent drug use. *Journal of Ethnic and Cultural Diversity in Social Work, 11*(3/4), 191-220.
- Mosher, C., Rotolo, T., Phillips, D., Krupski, A., & Stark, K. (2004). Minority adolescents and substance use risk/protective factors: A focus on inhalant use. *Adolescence, 39*(155), 489-502.
- Moyer, I. (2001). *Criminological theories: Traditional and nontraditional voices and themes*. Thousand Oaks: Sage Publications.
- Murray, C., & Greenberg, M. (2000). Children's relationship with teachers and bonds with school: an investigation of patterns and correlates in middle childhood. *Journal of School Psychology, 38*(5), 423-445.
- Napoli, M., Marsiglia, F., & Kulis, S. (2003). Sense of belonging in school as a protective factor against drug abuse among Native American urban adolescents. *Journal of Social Work Practice in the Addictions, 3*(2), 25-41.
- Noddings, N. (1984). *Caring: A feminine approach to ethics and moral education*. Berkeley: University of California Press.
- Noddings, N. (1992). *The challenge to care in schools: An alternative approach to education*. New York, NY: Teachers College Press.

- Pardini, D., Loeber, R., & Stouthamer-Loeber, M. (2005). Developmental shifts in parent and peer influences on boys' belief about delinquent behaviour. *Journal of Research on Adolescence, 15*(3), 299-323.
- Payne, A., Gottfredson, D., & Gottfredson, G. (2003). Schools as Communities: The relationships among communal school organization, student bonding, and school disorder. *Criminology, 41*(3), 749-777.
- Robertson, E., David, S., & Rao, S. (2003). Preventing drug use among children and adolescents: A research-based guide for parents, educators, and community leaders. (2nd ed.). Bethesda, Maryland: U.S. Department of Health and Human Services.
Downloaded December 2, 2007 from website
<http://www.drugabuse.gov/pdf/prevention/InBrief.pdf>
- Scales, P. (2005). Developmental assets and the middle school counselor. *Professional School Counselling, 9*(2), p. 104-111.
- Schaps, E., & Solomon, D. (2003). "The role of the school's social environment in preventing student drug use. *Journal of Primary Prevention, 23*(3), 299-328.
- Sergiovanni, T. (1994). Organizations of communities? Changing the metaphor changes the theory. *Educational Administration Quarterly, 30*(2), 214-226.
- Siegel, L., & McCormick, C. (1999). *Criminology in Canada: Theories, patterns, and typologies*. Toronto, ON: International Thomson.

Simons-Morton, B., Crump, A., Haynie, D., & Saylor, K. (1999). Students-school bonding and adolescent problem behaviour. *Health Education Research, 14*(1), 99-107.

Substance Abuse and Mental Health Services Administration (2002). *Results from the 2001 National Household Survey on Drug Abuse: Volume 1, Summary of National Findings (NHSDA Series H-17, DHHS Publication No. SMA 02-3758)*. Rockville, Maryland: Office of Applied Studies.

Sweet, S., & Grace-Martin, K. (2003). *Data Analysis with SPSS: A First Course in Applied Statistics*. Toronto, ON: Pearson Education.

Thomas, S., & Smith, H. (2004). School connectedness, anger behaviours, and relationships of violent and nonviolent American youth. *Perspectives in Psychiatric Care, 40*(4), 135-148.

United Nations. (2005). *World Youth Report: Young people today and in 2015*. Department of Economic and Social Affairs. ISBN 92-1-130244-7. Retrieved October 1, 2007, from <http://www.un.org/esa/socdev/unyin/documents/wyr05book.pdf>

U.S. Department of Health and Human Services. (2005). *National Survey on Drug Use & Health: National Results*. Retrieved July 10, 2007, from <http://www.oas.samhsa.gov/drugs.cfm>

Vancouver Coastal Health News Release (2006). This is not a test: 2006 Vancouver Youth Drug Survey Results. Retrieved on March 15, 2008 from http://www.vch.ca/news/docs/2007_03_06_YouthDrugSurveyReport.pdf

Voelkl, K. & Frone, J. (2001, May). Predictors of substance use at school among high school students. *Research In Brief, Article, 1*, 1-4.

Weiner, D., Abraham, M., & Lyons, J. (2001). Clinical characteristics of youths with substance use problems and implications for residential treatment. *American Psychiatric Association, Psychiatric Services. 52*, 793-799.

Wotherspoon, T. (2004). *The Sociology of Education in Canada*. Don Mills, On:Oxford.

Zyngier, D. (2003). Connectedness – Isn't it time that education came out from behind the classroom door and rediscovered social justice. *Social Alternatives, 22*(3), 41-49.

**APPENDIX A – SAFE SCHOOL SOCIAL RESPONSIBILITY
SURVEY FOR SECONDARY STUDENTS**

INTRODUCTION

This survey is designed to provide important information about student experiences with personal safety and social responsibility. This survey also provides an opportunity for students' voices to be heard and students' experiences considered.

The information provided by you is very valuable for your school and the school district. This information can assist your school district in planning to support students' success. Your participation in this survey is voluntary and your answers are confidential and anonymous, which means that your information will be kept private and your name will not be associated with any of your responses. This is not an exam and there are no right or wrong answers to the questions, although it is important that you answer the questions as honestly as possible.

PRIVACY CODE INFORMATION

Over the next few years, the school district may ask you to complete this survey again in order for comparisons to be made between previous and future responses. To ensure your privacy and confidentiality, we are asking you to create your own "privacy code" (Questions 1 - 5), which is a personal identity number unique to you. If you complete this survey again in the future, we will ask that you re-create your "privacy code". This information will never be provided back to the school. If you are not comfortable providing this information do not answer Questions 1 - 5.

INSTRUCTIONS

1. DO NOT write your name on this survey.
2. Please use a blue or black pen. No pencils are allowed.
3. Please answer each question by completely filling in the appropriate circle on the Answer Form (see diagram on the Answer Form).
4. Do not talk until ALL students have completed the survey.
5. Make sure you answer according to the instructions for each section.
6. If you are not comfortable answering a question or if you don't know what it means, just leave it blank.
7. If you prefer not to complete the survey please turn it face down on the desk.
8. When you have completed the survey please turn it face down on the desk.
9. When all students have completed the survey, the teacher will collect them all and seal them in an envelope.
10. If you make a mistake put an "x" through the incorrect answer and fill in the circle for the correct answer.

TO BEGIN THE SURVEY:

Please turn the page and begin the survey now. Beginning with question 13, all questions are in this booklet.

Please answer all questions on the ANSWER FORM

SECTION A

Please answer Questions 1 - 5 on the Answer Form.

6. What are the first five letters of the name of your school?
7. What grade are you in?
8. What is your gender?
9. What is your racial/ethnic background? *Choose ONE only.*
 - A. My racial/ethnic background is mixed.
 - B. Aboriginal (First Nations, Non-Status Indian, Inuit, Metis)
 - C. African/Caribbean (Black)
 - D. Asian (Cambodian, Chinese, Japanese, Korean, Taiwanese, Thai, Vietnamese, Filipino)
 - E. South Asian (East-Indian, Indo-Canadian, Pakistani)
 - F. Caucasian (White, European, Russian)
 - G. Latin American (Mexican, Portuguese, South American, Spanish)
 - H. Middle Eastern (Arabic, Iranian, Kuwaiti, Persian, Turkish, Israeli, Palestinian)
 - I. I don't know my racial/ethnic background.
10. How long have you lived in Canada?
11. Is English the main language spoken in your home?
12. This question has been removed from survey.

Please answer Question 13 and 14 on the Answer Form using the following scale:

1. Better than Most	2. About the same as most students	3. Worse than most students	4. I'm not Sure
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13. How well do you do in your school work?
 - A. When you were in elementary school
 - B. In this school
14. How well are you liked by other students?
 - A. When you were in elementary school
 - B. In this school

SECTION A**Please answer all questions on the ANSWER FORM**

15. What do you consider your sexual orientation to be?
1. Straight
 2. Bisexual
 3. Gay, lesbian (homosexual)
 4. I am not sure
16. At school, your friends are...
1. all from the same racial/ethnic background as you.
 2. mostly from the same racial/ethnic background as you.
 3. mostly from a different racial/ethnic background from you.
 4. from all different racial/ethnic backgrounds.
17. What is the highest level of education that you would like to complete? Choose one.
1. Not finish high school
 2. High school graduation
 3. Training/apprenticeship program (like carpentry, computer training, legal assistant)
 4. Some college/university classes
 5. College diploma
 6. University/bachelor degree (undergraduate)
 7. Masters degree
 8. Professional degree (like lawyer, nurse, architect)
 9. Doctoral degree



*From this point on all questions are only in this booklet.
Please answer on the Answer Form.*

These questions ask how you feel about things - about yourself and about school, this school year.

Please answer Question 18 on the Answer Form using the following scale:

1. Strongly Disagree	2. Disagree	3. Undecided	4. Agree	5. Strongly Agree
----------------------	-------------	--------------	----------	-------------------

18 a. I do lots of important things.

- b. In general I like being the way I am.
- c. Overall, I have a lot to be proud of.
- d. I can do things as well as most other people.
- e. Other people think I am a good person.
- f. A lot of things about me are good.
- g. I am as good as most other people.
- h. When I do something, I do it well.

The next questions ask about feeling safe. *Safe* means feeling comfortable, relaxed and not worried that something bad could happen to you.

Please answer Question 19 on the Answer Form using the following scale:

1. Never	2. Hardly ever	3. Some of the time	4. Most of the time	5. Always
----------	----------------	---------------------	---------------------	-----------

19 a. I feel safe at school.

- b. I feel safe at school activities and events (dances, field trips, clubs, sporting events).
- c. I feel safe on my way to and from school.
- d. I feel safe in my neighbourhood or community.

SECTION B

Please answer all questions on the ANSWER FORM

Much publicity has been given to the serious problems that teens face these days. Based on your experiences at school or school events, this school year, please indicate how often the following things happen to you.

Please answer Question 20 on the Answer Form using the following scale:

1. Never	2. Hardly ever	3. Some of the time	4. Most of the time	5. Always
----------	----------------	---------------------	---------------------	-----------

20. How often are you worried or afraid that you will...
- be physically attacked or hurt by a student or group of students?
 - be attacked or threatened with a weapon?
 - be talked into doing things you are not comfortable with by other students?
 - have rumours or gossip spread about you?
 - be forced to engage in sexual acts by other students?
 - be verbally harassed or embarrassed at school?
 - be made fun of or left out because of your culture or race?
 - be made fun of or left out because of your physical appearance or a physical disability?
 - be made fun of or left out because of how well or poorly you do in school?
 - be made fun of or left out because of your sexual orientation (straight, gay, bisexual)?

Please answer Question 21 on the Answer Form using the following scale:

1. Never	2. At least once this school year	3. About once per month	4. About once per week	5. More than once per week
----------	-----------------------------------	-------------------------	------------------------	----------------------------

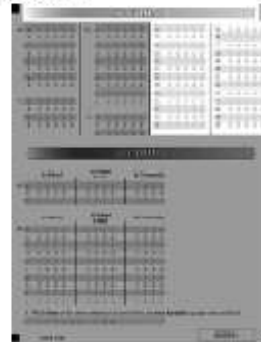
21. How often have you...
- been suspended from school?
 - skipped a class?
 - skipped all day?

These questions ask how you feel about things – about yourself and about school, this school year.

Please answer Questions 22 - 47 on the Answer Form using the following scale:

1. Strongly Disagree	2. Disagree	3. Undecided	4. Agree	5. Strongly Agree
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22. The adults in my school treat students fairly.
 23. My ideas and opinions are important to at least one adult in my school.
 24. I can get extra help from adults at my school if I need it.
 25. I can get extra help from my family if I need it.
 26. My school provides opportunities for me to get involved in community activities.
 27. My feelings are recognized by at least one adult at my school.
 28. I feel awkward and out of place at my school.
 29. I like school.
 30. I liked elementary school.
 31. I feel like I belong at my school.
 32. Other students at my school accept me as I am.
 33. When I have a problem, there are students who will help me.
 34. Students at my school really care about each other.



Please answer Questions 35 - 47 in the next column on the Answer Form.

35. Adults in my school respect me.
 36. Adults in my family respect me.
 37. Students in my school are just looking out for themselves.
 38. Adults in my school really care about students.
 39. Students at my school work together to solve problems.
 40. There is an adult in my school that I can go to for support or advice or talk to about my problems and worries.
 41. There is an adult in my family that I can go to for support or advice or talk to about my problems and worries.
 42. In my school, students have a say in deciding what goes on.
 43. Students treat teachers and adults at school with respect.
 44. I know what my school's code of conduct says.
 45. The adults at my school have talked to us about the school code of conduct.
 46. Adults at my school do a good job of responding to bullying and harassment.
 47. Adults at my school do a good job of responding to physical violence (punching, kicking, weapons).

SECTION C

Please answer all questions on the ANSWER FORM

These questions ask about a variety of risky activities youth are believed to be involved in.



PLEASE READ THESE NEW DIRECTIONS...

Now we would like to ask you about your experiences with alcohol and drugs. For each item please tell us about your experiences:

At School	At School Events (like dances, sports, trips)	In the Community (outside of school)
-----------	--	---

Be sure to mark **one** response in each column using the following scale for each column.

1. Never	2. Once or a few times	3. About once per month	4. Every week or more
----------	------------------------	-------------------------	-----------------------

48. How often have you:
- consumed alcohol?
 - consumed more than 5 alcoholic beverages **at one time**?
 - been under the influence of alcohol?
49. a. smoked cigarettes?
- used marijuana?
 - used ecstasy?
 - used hallucinogens (LSD, acid)?
 - used inhalants (glue, gas, aerosol)?
 - used prescription pills not prescribed by a doctor?
 - used crystal meth?
 - used cocaine?
 - used heroin?
 - been "high" because you used any of the drugs listed above?

- k. Which **three** of the following substances do you believe are **most harmful** to people who use them?
- | | | | | |
|---------------|---|-----------------|------------|------------------|
| 1. cigarettes | 2. alcohol | 3. marijuana | 4. ecstasy | 5. hallucinogens |
| 6. inhalants | 7. prescriptions pills
(not from doctor) | 8. crystal meth | 9. cocaine | 10. heroin |

Thanks.... You will now go back to using the same procedure as earlier in the survey.

Please answer Question 50 on the Answer Form using the following scale:

1. Never	2. Once or a few times	3. About once per month	4. Every week or more
----------	------------------------	-------------------------	-----------------------

50. For each statement below, indicate how often you have experienced these problems because of drinking or using drugs.

I have not used alcohol or drugs. Go to question 51.

- I got in trouble at school.
- I got in trouble at home.
- I got poor school marks.
- I had a fight with someone.
- I lost friends.
- I got in trouble with the police.
- I had problems with my girlfriend/boyfriend.
- I lost interest in my usual activities.

Now we would like to ask you about your experiences with violence and weapons. For each item please tell us about your experiences:

At School	At School Events (like dances, sports, trips)	In the Community (outside of school)
-----------	--	---

Be sure to mark **one** response in each column using the following scale for each column.

1. Never	2. Once or a few times	3. About once per month	4. Every week or more
----------	------------------------	-------------------------	-----------------------

This school year, how often have you...

- engaged in physical violence by pushing, slapping or hitting?
- threatened someone with physical violence?
- carried a weapon?
- threatened someone with a weapon?
- engaged in physical violence with a weapon?
- stolen something or purposely damaged property (including graffiti)?

SECTION D

Please answer all questions on the ANSWER FORM

IMPORTANT DEFINITION

Bullying and harassment happens when a person who has more power or some advantage (bigger, more status, etc.) tries to bother, hurt, make fun of or attack another person (it's not an accident), and does so repeatedly. Sometimes several students will bully or harass another student or group of students.

Now we would like to ask you about your experiences with bullying and harassment at school and school events, **this school year**. For each item please tell us about:

When it has been
DONE TO ME

When it has been
DONE TO OTHERS by me

Be sure to mark **one** response in each column using the following scale for each column.

1. Never	2. Once or a few times	3. About once a month	4. Every week or more
----------	------------------------	-----------------------	-----------------------

57. How often have you had experience with...

a. bullying and harassment?

Students can bully and harass others in different ways. How often have you had experience with...

b. physical bullying (hitting, shoving, kicking)?

c. verbal bullying (name calling, teasing, threats, putdowns)?

d. social bullying (exclusion, rumours, gossip, humiliation)?

e. cyberbullying at school (using computer or text messages to exclude, threaten or humiliate)?

f. cyberbullying outside of school (using computer or text messages to exclude, threaten or humiliate)?

g. cyberbullying that caused problems at school (using computer or text messages to exclude, threaten or humiliate)?

IMPORTANT DEFINITION

Sexual harassment is unwelcome and unwanted behavior about sex and gender that interferes with your life and makes you feel uncomfortable, even if the people doing the harassing were only joking. These questions are NOT asking about behaviors you like or want (for example, when you want someone to kiss you or when you flirt with a girlfriend or boyfriend).

Now we would like to ask you about your experiences with sexual harassment at school and school events, this school year. For each item please tell us about:

When it has been DONE TO ME

When it has been DONE TO OTHERS by me
--

Be sure to mark one response in each column using the following scale for each column.

1. Never

2. Once or a few times

3. About once per month

4. Every week or more

58. How often have you had experience with...

- a. saying someone did not seem masculine or feminine enough?
- b. calling someone gay, fag, lesbian, or something similar?
- c. spreading sexual rumours or notes, writing sexual graffiti?
- d. making unwelcome or crude comments about someone's body or their sexual behavior?
- e. yelling something sexual or whistling/howling as someone walks by?
- f. making someone uncomfortable by making sexual gestures or staring at someone in a sexual way?
- g. making someone uncomfortable by using hurtful sexual language?
- h. standing too close or brushing against someone in a sexual way when it is not wanted?
- i. touching, kissing, grabbing or pinching someone in a sexual way when it's not wanted?
- j. persuading or bribing someone to do something sexual (other than kissing) when it is not wanted?
- k. forcing or threatening someone to do something sexual (other than kissing) when it is not wanted?
- l. **Girls only:** pressure from other girls to engage in sexual activities with others?
Boys only: pressure from other boys to engage in sexual activities with others?

SECTION D

Please answer all questions on the ANSWER FORM

IMPORTANT DEFINITION

Discrimination is when people are seen as having different value and/or treated unfairly because of their racial or ethnic background, culture, the colour of their skin, sexual orientation, or other differences.

Now we would like to ask you about your experiences with discrimination at school and school events, this school year. For each item please tell us about:

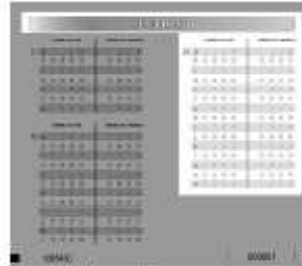
When it has been DONE TO ME	When it has been DONE TO OTHERS by me
--------------------------------	--

Be sure to mark one response in each column using the following scale for each column.

1. Never	2. Once or a few times	3. About once per month	4. Every week or more
----------	------------------------	-------------------------	-----------------------

59. How often have you had experience with ...

- saying negative things or teasing about someone's culture or race?
- saying negative things or teasing about someone's sexual orientation (straight, gay, bisexual)?
- making someone feel bad about their culture or race?
- making someone feel bad about their sexual orientation (straight, gay, bisexual)?
- calling someone racist names?
- telling jokes about someone's race or culture?
- telling jokes about someone's sexual orientation (straight, gay, bisexual)?
- using swear words when mentioning a race or cultural group?
- using swear words when mentioning gays or lesbians?
- telling others that certain racial or cultural groups are dangerous?
- telling others that people of a certain sexual orientation (straight, gay, bisexual) are dangerous?
- treating someone's racial or ethnic group as inferior?
- treating someone's sexual orientation as inferior (straight, gay, bisexual)?
- excluding someone because of culture or race?
- excluding someone because of sexual orientation (straight, gay, bisexual)?



The following questions ask what actions you have taken when you have been picked on, bullied, discriminated against, harassed or attacked at school and school events, this school year.

- I have not been picked on, discriminated against, bullied, harassed or attacked.
Go to question 62.

Please answer Question 60 on the Answer Form using the following scales:

1. Never	2. Hardly ever	3. Some of the time	4. Most of the time	5. Always
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60. When you have been picked on, discriminated against, bullied, harassed or attacked, how often have you . . .

- told the person(s) to stop?
- talked to the person(s) about it?
- walked away?
- ignored or avoided the person(s)?
- did something to distract the person(s)?
- stayed home from school?
- got your friends to get back at the person(s)?
- fought back physically?
- found a new friend or group of friends?
- talked to an adult at home?
- talked to another teen/youth about it?
- reported it to an adult at school?
- got your friends to help you solve the problem?
- talked to the person's friend(s) about it?
- did nothing?

61. Which one of the above actions was MOST effective in stopping the person(s) from picking on, discriminating against, bullying, or harassing you? Choose only one.

SECTION D

Please answer all questions on the ANSWER FORM

The following questions ask what actions you have taken when you have seen others being picked on, bullied, discriminated against, harassed or attacked at school and school events, this school year.

- I have not seen others being picked on, discriminated against, bullied, harassed or attacked. Go to question 64.

Please answer Question 62 on the Answer Form using the following scales:

1. Never	2. Hardly ever	3. Some of the time	4. Most of the time	5. Always
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62. When you have seen others being picked on, discriminated against, bullied, harassed or attacked, how often have you...

- told the person(s) doing the bullying to stop?
- talked to the person(s) doing the bullying?
- talked to the bullying person's friends about it?
- walked away?
- ignored or avoided the person(s) who bullied?
- did something to distract the person(s) who bullied?
- helped the person being hurt to get away?
- talked afterwards to the person who was hurt?
- got your friends to help solve the problem?
- got your friends to get back at the other person(s)?
- stayed home from school?
- talked to an adult at home?
- talked to another teen/youth about it?
- reported it to an adult at school?
- talked about it with an adult at school?
- did nothing?

The image shows two pages of an answer form. The left page is labeled 'SECTION D' and contains a list of questions (62) with corresponding Likert scale options (1-5). The right page is labeled 'SECTION E' and contains a list of questions (63) with corresponding Likert scale options (1-5). Both pages have a 'TOTAL' box at the bottom.

63. Which one of the above actions was MOST effective in stopping the person(s) from picking on, discriminating against, bullying, or harassing others? Choose only one.

Please answer all questions on the ANSWER FORM

SECTION E

The students and adults at a school are part of a community. The students and adults interact with each other in many ways inside and outside the classroom. Adults in your school include teachers, office staff or any other person regularly working in your school.

Please answer Question 64 - 66 on the Answer Form using the following scales:

1. Never	2. Hardly ever	3. Some of the time	4. Most of the time	5. Always
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For each statement below, indicate how you feel or what you think based on your experiences at school, this school year.

64. **Adults** at my school are accepting of all individuals...
- a. regardless of their race, ethnicity or culture.
 - b. regardless of their sexual orientation (straight, gay, bisexual).
 - c. regardless of their physical or mental disability.
 - d. regardless of their academic ability.
65. **Students** at my school are accepting of all individuals...
- a. regardless of their race, ethnicity or culture.
 - b. regardless of their sexual orientation (straight, gay, bisexual).
 - c. regardless of their physical or mental disability.
 - d. regardless of their academic ability.

Please answer Question 66 using the scale at the top of the page.

66. At my school this year...
- a. adults talk positively about diversity (the ways people are different from each other – race, sexual orientation or ability).
 - b. students talk positively about diversity (the ways people are different from each other – race, sexual orientation or ability).
 - c. adults speak out against stereotyping (unfairly judging) others.
 - d. students speak out against stereotyping (unfairly judging) others.
 - e. we learn about people of various cultures, races, and ethnicities.
 - f. we learn about people of various sexual orientations (straight, gay, bisexual).
 - g. we learn about bullying and harassment.



SECTION E

Please answer all questions on the ANSWER FORM

The following statements describe ways in which you may have helped your school and/or community become a better place. For each of the following questions please choose ONE response that is MOST true about you.

67. With regard to **contributing positively** to your school, which statement below is most true about you? Pick one only.
1. I do not contribute to my school.
 2. I try to contribute to the school community when asked.
 3. I volunteer in activities that contribute to my school community.
 4. I have organized many activities that contribute to my school community.
68. With regard to **solving problems** with other people at school, which statement is most true about you? Pick one only.
1. I have a hard time solving problems peacefully.
 2. I consider other people's feelings but it is difficult.
 3. I try to understand the other person's perspective and calmly solve problems.
 4. I logically determine which is the best strategy for solving problems and I use it.
69. With regard to **valuing diversity and defending human rights**, which statement is most true about you? Pick one only.
1. I ignore people who are different from me.
 2. I respect other people but I don't think about human rights or diversity.
 3. I have been involved in activities in my school or community that show support for human rights.
 4. I am committed and involved in supporting diversity and defending human rights even if it is not the popular thing to do.
70. With regard to **exercising democratic rights and responsibilities**, which statement is most true about you? Pick one only.
1. I don't think it really matters.
 2. I am interested in my democratic rights and responsibilities but I have not done much about it.
 3. I am interested in taking action to make my community a better place.
 4. I know what I want to do to make the world a better place.

You're almost finished!

71. Indicate how often you are involved in each of these school or community-related events.
Answer for **this school year**.

Please answer Question 71 on the Answer Form using the following scale:

1. Never	2. Once or twice	3. Once a month	4. About once a week	5. More than once a week
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How often have you...

- a. participated in a school club or group?
- b. participated in a community club or organization?
- c. attended a religious service or activity?
- d. attended a school dance?
- e. participated in drama, art or music activities at school?
- f. played on a school sports team?
- g. participated in physical activities other than a school sports team?
- h. mentored or tutored other students?
- i. participated in a group to make school a better place?
- j. participated in a group to make your community a better place?
- k. led or organized an activity at your school?
- l. led or organized an activity in your community?

Thank you very much for your help.