

## **INFORMATION TO USERS**

**This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.**

**The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.**

**In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.**

**Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.**

**Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.**

**ProQuest Information and Learning  
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA  
800-521-0600**

**UMI<sup>®</sup>**





**Université d'Ottawa • University of Ottawa**



**Vocational Identity, Stress, Coping, and Social Support as Determinants of  
Attrition, Attendance, Number of Credits Completed, and Grades  
When Returning to High School**

**Douglas D. Schmidt, M.A.**

**A dissertation submitted to  
the School of Graduate and Postdoctoral Studies of the University of Ottawa  
as partial fulfillment for the requirements for the degree of Doctor of Philosophy**

**Dissertation Supervisor: Jane E. Ledingham, Ph.D.**



**National Library  
of Canada**

**Acquisitions and  
Bibliographic Services**

**395 Wellington Street  
Ottawa ON K1A 0N4  
Canada**

**Bibliothèque nationale  
du Canada**

**Acquisitions et  
services bibliographiques**

**395, rue Wellington  
Ottawa ON K1A 0N4  
Canada**

*Your file Votre référence*

*Our file Notre référence*

**The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.**

**The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.**

**L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.**

**L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.**

0-612-67993-4

**Canada**

### Acknowledgements

I would like to thank my research supervisor, Dr. Jane Ledingham for having taken me on as a student, being open to my research ideas, and assisting me with planning and writing this dissertation. Thanks also go Dr. Gail Crombie, Dr. Barry Schneider, and Dr. Alastair Younger for agreeing to be members of my committee and for their helpful comments. The participation of Dr. Robert Hoge of Carleton University as the external examiner was greatly appreciated. The assistance of Dr. Dwayne Schindler regarding statistical analyses has also been invaluable. I gratefully appreciate the involvement of the many staff and students at the the Edmonton Catholic Schoolboard, Edmonton Public Schoolboard, the Edmonton YMCA, the Elk Island Public Schoolboard, Alberta College, Grant McEwan Community College, and NorQuest College. The assistance of Ron Cammaert and his colleagues at the Alberta Learning department of the Government of Alberta with grade 9 achievement scores is also very much appreciated. Thanks go to Dr. John Reddon for allowing me to use his research laboratory at Alberta Hospital-Edmonton, and to Sarah Vanderveen for assistance with data entry. Financial support for this project was kindly provided by the Spencer Foundation for Educational Research. Thanks go to Dr. Barry Schneider for having suggested that a grant application be made to this organization.

Completing this dissertation and my education would not have been possible without the help of my parents Brenda and Ken Schmidt who have been 100% supportive of me. Friends too numerous to mention here have also been extremely supportive of my graduate training in general. Several friends have given me practical assistance during the evolution of this document from start to finish. I would like to thank Cheryl King for her practical and creative help with questionnaire design initially and as changes were required. I would also like to thank her for her marketing savvy and for arranging to have the Citadel Theater kindly provide theater coupons for school staff, and Gateway Lanes and Recreation to kindly donate bowling and laser tag coupons for students. Emily Rowan deserves great thanks for her very generous provision of printing materials and services during months of data collection. Many thanks go to Naida Silverthorn for her hours of untiring assistance with data management and statistical analyses. I would also like to thank Alison Smerek very much for her insightful help with tying my ideas together during the process of writing.

Abstract

The purpose of this dissertation is to review research on predictors of success when students return to high school, and to investigate the power of several risk and protective factors as predictors of success of students returning to school. Research findings regarding factors associated with initial departure from high school, returning to school, and repeated departure from high school are reviewed. Theories regarding departure from school are presented. A developmental psychopathology approach to predicting repeated departure from high school programs is presented which integrates cognitive, behavioural, social, and developmental theories. Findings are presented from a study on students returning to school who responded to questionnaires about demographics, vocational identity, stress level, coping style, and perceived social support. A total of 453 students participated who were returning to four types of academic environments: alternative outreach high schools ( $n = 267$ ), a school for mothers ( $n = 46$ ), a fourth year high school ( $n = 42$ ), and college high school upgrading and completion programs ( $n = 98$ ). The participants included 288 females (79 mothers and 209 nonmothers) and 165 males. The primary analyses were focused on how vocational identity, stress, coping behaviours, and social support predicted the outcome variables of attrition, attendance, number of credits completed, and grades at the end of the students' first 4 to 6 month term back in high school programs. Age, SES, and achievement were

not found to be consistently predictive of outcomes. Males were more likely to leave school again, although no specific psychological variables were found to predict their departure. Females were found to be more likely to leave school again if they had a lower level of vocational identity, and if they had experienced a greater number of stressful life events in the year prior to returning to school. Gender, vocational identity, and life stress were not found to interact as moderators on outcomes. The results of this empirical study are believed to enrich theoretical understanding of success in returning to high school and will enable teachers and other professionals to more effectively evaluate and counsel students returning to school.

## Table of Contents

Acknowledgments .....	2
Abstract .....	4
Table of Contents .....	6
List of Tables .....	8
List of Figures .....	9
List of Appendixes .....	10
Vocational Identity, Stress, Coping, and Social Support as Determinants of Attrition, Attendance, Number of Credits Completed, and Grades When Returning to High School .....	11
Theories Regarding Departure from School .....	14
Variables Associated with Dropping out of School and School Reentry .....	18
Demographic Factors .....	18
Age .....	18
Sex .....	19
Socioeconomic Status .....	21
Educational and School Factors .....	22
Ability and Achievement .....	22
School Program .....	22
Academic Attitudes and Goals .....	23
Personal Adjustment Factors .....	25
Behaviour Problems .....	25
Emotional Adjustment .....	26
Stress .....	26
Family and Peer Relations .....	26
The Relative Strength of Predictors of Dropping Out of High School .....	27
The Process of Returning to High School .....	30
Future Directions for Research .....	51
Stress, Coping and Social Support .....	52
Stress .....	53
Coping .....	55
Social Support .....	57
Identity Formation .....	59
The Present Study .....	63
Method .....	65
Participants .....	65
Procedure .....	66

## Table of Contents (continued)

<b>Measures</b> .....	67
<b>Achievement</b> .....	68
<b>Vocational Identity Scale (VIS)</b> .....	69
<b>Life Events Questionnaire (LEQ)</b> .....	71
<b>Adolescent Coping Orientation For Problem Experiences (A-COPE)</b> .....	73
<b>Perceived Social Support Scale (PSS)</b> .....	75
<b>Measures of Success in Staying in School</b> .....	76
<b>Power Analysis</b> .....	77
<b>Results</b> .....	77
<b>Descriptive Statistics</b> .....	80
<b>Predicting Who Dropped Out Before End of Term Following Return to School</b> .....	96
<b>Predicting How Many Weeks Students Remained in School</b> .....	99
<b>Predicting Attendance</b> .....	101
<b>Predicting Number of Credits Earned after Returning to School</b> .....	103
<b>Predicting the Average Grades of Core Credits Earned</b> .....	103
<b>Interactions between Predictors</b> .....	104
<b>Discussion</b> .....	104
<b>Overall Findings of the Present Study</b> .....	105
<b>Achievement</b> .....	107
<b>Age</b> .....	107
<b>Socioeconomic Status</b> .....	108
<b>Gender Differences</b> .....	108
<b>Vocational Identity</b> .....	109
<b>Life Events</b> .....	111
<b>Vocational Identity and Life Events</b> .....	111
<b>Coping and Social Support</b> .....	111
<b>Parenting Status</b> .....	112
<b>Theoretical Implications</b> .....	113
<b>Clinical Implications of the Research</b> .....	115
<b>Strengths and Limitations of the Present Study</b> .....	115
<b>Suggestions for Future Research</b> .....	119
<b>Conclusions</b> .....	121
<b>References</b> .....	122
<b>Appendixes</b> .....	139

List of Tables

1.	Findings from Previous Research .....	39
2.	Means and Standard Deviations of Descriptive and Predictor Variable Scores as a Function of Gender and Parity .....	82
3.	Correlation Coefficients between Descriptive and Predictor Measures as a Function of Gender .....	86
4.	Correlation Coefficients between Predictor and Outcome Measures as a Function of Gender .....	88
5.	Correlation Coefficients between Outcome Measures as a Function of Gender .....	90
6.	Number and Percentage of Participants Reporting Different Reasons for Initial Departure from School as a Function of Gender and Parity .....	92
7.	Number and Percentage of Participants Reporting Different Reasons for Returning to School by Gender and Parity .....	95
8.	Summary of Logistic Regression Analyses Predicting Whether Students Remained for a Complete Term after Returning to School .....	98
9.	Means and Standard Deviations of Descriptive and Predictor Variable Scores as a Function of Outcome (Left/Stayed) .....	100

List of Figures

1. Socioeconomic status classifications for participants ..... 84
2. Percentage of participants who remained in school as a function of  
number of weeks in program and gender ..... 102

List of Appendixes

A	Recruitment Letter and Script for Participants .....	139
B	Participant Consent Letter .....	141
C	Recruitment Letter for Parent/Guardian of participants under 18 .....	143
D	Parent/Guardian Consent Letter .....	145
E	Background Information Questions .....	148
F	Socioeconomic Status .....	150
G	Life-Events Questionnaire (LEQ) .....	151
H	Adolescent Coping Orientation for Problem Experiences (A-COPE) ..	153
I	Perceived Social Support Scale .....	156

**Vocational Identity, Stress, Coping, and Social Support as Determinants of  
Attrition, Attendance, Number of Credits Completed, and Grades  
When Returning to High School**

Graduating from high school is one factor marking a successful transition from adolescence to young adulthood and is a protective factor for later adjustment and quality of life (Human Resources Development Canada and Statistics Canada, 1996). Individuals who graduate from high school are more likely than individuals who drop out to experience economic independence and to find work that is personally rewarding. Completing high school is associated with a higher likelihood of employment, and with better mental health (Caspi, Elder, & Herbener, 1990).

Dropping out of high school, on the other hand, is associated with numerous problems of adjustment. Individuals who leave high school early have a more problematic developmental trajectory prior to and subsequent to leaving school than students who complete high school (Human Resources Development Canada and Statistics Canada, 1996). Early high school leavers are more likely than students who remain in school to have had difficulties in the transition between elementary and high school, to have failed grades, and to have experienced difficulties with peers (Cairns, Cairns, & Neckerman, 1989). Departure from high school is correlated with other concurrent high-risk behaviours such as delinquency, substance abuse, early sexual behaviour, and

early parenthood (see Dryfoos [1990] for a review). Dropping out of high school, like early parenthood, signifies premature entry into adult roles and increases an individual's risk for later maladjustment (Rutter, 1990)

Psychological states such as lower self-esteem and feelings of alienation and inferiority are heightened after dropping out of school (Rumberger, 1981).

After leaving school early, individuals are also more likely to experience unemployment, a limited income, and poverty (Bachman, Green, & Wirtanen, 1967; Finn, 1989; Human Resources & Labour Canada, 1993; Kronick & Hargis, 1990; Steinberg, Blinde, & Chan, 1984). In addition to these personal consequences of dropping out of school, there are numerous societal costs such as money spent on government assistance and training programs (Human Resources Development Canada and Statistics Canada, 1996).

Although the majority of Canadian teenagers graduate from high school, about 30% leave high school before graduation (Gilbert, Barr, Clark, Blue, & Sunter, 1993). This statistic suggests that a large proportion of individuals have difficulty completing high school during their first attempt. By 24 years of age, approximately half of the individuals who left high school early have returned to attempt to complete their high school education (Human Resources Development Canada and Statistics Canada, 1996).

Despite the fact that many individuals who leave school are motivated to return, approximately one quarter of students returning to high school drop out

again in Canada (Karp, 1988; Larter & Cheng, 1978), the United States (Kaufman, 1990; Pallas, 1987), and Australia (Goldman & Bradley, 1996b). Thus, whereas many individuals are motivated to return to high school, a significant percentage are unable to remain and complete their high school education. This group of people who have repeatedly left high school without completing it comprise approximately 5% of the Canadian population by the age of 24.

Much research has been conducted regarding the process of dropping out of school but little is yet known about the process of returning to high school and how to assist students to remain in high school once they have returned. Because of the importance of high school completion in terms of both quality of life and financial costs for individuals and for society, psychological and educational researchers are now beginning to focus on the return to school to understand this process better and improve ways of helping returning students (Ekstrom, Goertz, Pollack, & Rock, 1986; Goldman & Bradley, 1996a, 1996b, 1997; Human Resources Development Canada and Statistics Canada, 1996; Kaufman, 1990).

In spite of the increasing interest in this population, factors influencing which returning students either remain in high school or drop out again are not well understood. So far, success when returning to school has been shown to be related to only a limited number of variables such as demographic factors

(age, sex, and socioeconomic status) as well as to intellectual ability and academic achievement level.

Below, theories of departure from school are reviewed. Second, research findings regarding factors associated with initial departures from high school as well as the small but growing literature on factors associated with returning to school and remaining in school are reviewed. In the third section, a critique of studies specifically focused on students returning to high school is presented. In the fourth and final section, suggested avenues of future research is presented. A case will be made for the importance of less static and more proximal variables which have not been studied extensively in this population but which hold promise as predictors of performance in returning to high school.

#### Theories of Departure from High School

Research regarding departure from high school is usually descriptive and data-driven, and less frequently theoretical or hypothesis-driven. However, some writers have provided theoretical analyses of the phenomenon. Theories of departure from high school can generally be classified as cognitive, behavioural, sociological, or as coming from the more integrative perspective of developmental psychopathology.

Cognitive explanations of withdrawal from school are primarily focused on how students with lower ability, lower achievement, and learning disabilities are more likely to have low academic grades, fail, and ultimately drop out of school

(Dryfoos, 1990). From this perspective, the problem is viewed as being primarily due to attributes of the student. Interventions are focussed on assessments of students' abilities and achievement levels, remedial assistance, and providing diverse educational opportunities for students of different abilities.

From a behavioural perspective, leaving school is viewed as the result of aversive aspects of the school experience and of wanting rewards for or distractions provided by extracurricular factors which interfere with completing schoolwork. These factors are assumed to lead students to engage in problematic behaviours such as antisocial behaviour, truancy, and absenteeism, and ultimately to lead to expulsion or voluntary withdrawal from school (Bachman, Green, & Wirtanen, 1971; Wehlage & Rutter, 1986). Gambetta (1987) proposed the term 'Push/Pull' to describe aversive school-related factors which push students out of school and extra-curricular factors such as work, family difficulties, or peer influences which pull students out of school. What Finn (1989) describes as the frustration/self-esteem theory could also be classified as a behavioural approach to departure from school. According to this model, school is experienced as an aversive environment which creates a negative view of self. In order to maintain a positive self-image, students are hypothesized to act out at school to express their dissatisfaction and then

ultimately leave school because both the school environment and their view of self have become increasingly aversive for them.

From the perspective of social psychology and sociology, leaving school is viewed as a behaviour that is learned from others through values and goals shared with peers (Hymel, 1994) and family members (Astone & McLanahan, 1991). Finn (1989) proposed a Participant-Identification theory in which he suggested that, if the norms and values of the individual's peer group and family are not in keeping with those of the school system and social groups which value school, the individual will not participate in school social activities or function well academically, and withdrawal from school will be more likely. Individuals from families, minority groups, or socioeconomic groups that do not value high school education have been found to be more likely to leave high school (Finn, 1989; Jordan, Lara, & McPartland, 1996).

A developmental psychopathology approach to explaining leaving school takes into account cumulative risk contributed to by cognitive, behavioural, social, and developmental factors (Cairns & Cairns, 1994). This approach could also be termed a bio-psycho-social approach. Individuals who leave school can be viewed as prematurely entering the adult world. Leaving high school is often related to other pseudo-mature events, such as early parenting, leaving the family home early, and entering the work force before same-age peers (Newcomb, 1996; Newcomb & Bentler, 1986). From a developmental

psychopathology framework, leaving school is viewed as one of a number of experiences which represent transitions leading to entry into the adult world. Problems in the timing of these events are thought to be caused by increased risk factors and to result in maladjustment or departures from the normal sequence of development. From this perspective there are many different pathways to the outcome of leaving school, and individuals are at different levels of risk based on the interaction of multiple factors.

One example of a developmental psychopathology approach to the problem of leaving high school is exemplified by the work of Janosz, Le Blanc and colleagues (Janosz, Le Blanc, 1996; Janosz, Le Blanc, Boulerice, & Tremblay, 2000) who proposed that male high school dropouts can be classified into a limited number of different types based on their behaviour, attitudes, and cognitive level. From this perspective, levels of school misbehaviour, commitment to school, and levels of academic achievement all must be taken into account to understand different types of school leavers. Based on these analyses, they proposed that school leavers can be classified as either Quiet (low misbehaviour, moderate to high academic commitment, moderate academic performance), Disengaged (moderate to low misbehaviour, low school commitment, average academic performance), Low Achievers (average-low misbehaviour, low commitment, very low academic performance), or Maladjusted (high misbehaviour, low commitment, poor academic

performance). These researchers point out that integrating data on school performance, commitment and ability level can provide an index of multiple risks for research identifying students at risk for dropping out of school.

#### **Variables Associated with Dropping out of High School and Reentry**

Variables which have been found to predict adjustment in and departure from school can be classified as (1) demographic factors, (2) academic and school-related factors, (3) personal adjustment factors, and (4) vocational aspiration factors. Demographic factors include age, sex, and socioeconomic status. Academic and school-related factors include ability, achievement level, and academic aspirations. Personal adjustment factors include locus of control, stress, coping behaviours, and social support. A fourth, less-studied variable domain includes vocational goals and vocational aspects of ego identity status. Below, the significance of these four groups of variables for the prediction of who drops out and who is successful in returning to complete high school is examined, and relationships among different predictors are discussed.

#### **Demographic Factors**

**Age.** In research on students dropping out of high school, the effect of age has only sometimes been evaluated and few researchers have applied a developmental perspective to their work. Goldman and Bradley (1996a) reported that, in a sample ranging in age from 15 to 24, the risk of dropping out of high school increased with age. Because more individuals drop out when

they are older, proportionately more individuals return to high school at older ages (Kolstad & Kaufman, 1989; Kolstad & Owings, 1986). This finding suggests that age is correlated positively with the likelihood of returning to high school. However, Chuang (1997) found that the older a student was when he or she dropped out of school, the less likely he or she was to return to high school. Borus and Carpenter (1983) reported that, as individuals become older, they become less likely to return to high school. Taken together, these findings suggest that, although the number of older individuals returning to high school is greater, the younger a person is when he or she dropped out of school and the younger he or she is in general, the more likely he or she will return to high school. On average, the older the students are the more likely they are to complete high school when returning, perhaps because they are more likely to have clear vocational goals and require a shorter period of study when returning to school (Goldman & Bradley, 1996b).

Sex. Males drop out of school at a higher rate than females (Kaufman, 1990). In Canada, 19% of men and 11% of women were found not to have graduated from high school by age 22 (Human Resources Development Canada, 1996). Entering the workforce is associated more strongly with leaving high school for males, and becoming a parent is associated more strongly with leaving high school for females (Kolstad & Kaufman, 1989). Different mental health problems for males and females are also related to departure from high

school: conduct problems, for males, and anxiety problems, for females, are associated with leaving high school early (Kessler, Foster, Saunders, & Stang, 1996). These findings suggest that there are sex differences in vocational goals and mental health factors which affect the likelihood of dropping out of high school. Sex differences may also exist on other variables such as social support, stress levels, and coping behaviours (Dryfoos, 1990).

A number of researchers have found that roughly equal numbers of men and women return to high school. Using data drawn from two separate large American samples, Chuang (1997) and Kaufman (1989) both reported no statistical difference in the percentage of males and females who returned to school. Goldman and Bradley (1997) reported that, of Australian students returning to high school, 45% were male and 55% were female. Given that more men drop out initially and equal numbers of males and females return, females appear to be more likely to return to high school than males.

Findings regarding possible sex differences in the likelihood of repeated departure from high school are not consistent. Kaufman (1990) reported that, of males returning, 22% dropped out again whereas, of the women returning, 27% left again. Karp (1988), however, found that 44% of men who had returned dropped out again compared to 36% of women returners, although the statistical significance of this difference was not tested. Thus, how sex is related to the likelihood of dropping out repeatedly from high school is still unclear.

**Socioeconomic status. Lower socioeconomic status (SES) is one of the most frequently reported predictors of success in completing high school. SES is related to being more likely to drop out of high school, being less likely to return to school, and being more likely to drop out again (Anisef, 1994; Ekstrom et al., 1986; Ensminger et al., 1996; Figueira-McDonough, 1993; Finn & Rock, 1997; Goldman & Bradley, 1996b; Kasen et al., 1998; Kaufman, 1990, McCaul et al., 1992). Ethnic minority group status is related to socioeconomic status and is also related to early withdrawal from high school (Anisef, 1994; Ekstrom et al., 1986; Goldman & Bradley, 1996b; Kaufman, 1990). Individuals of lower socioeconomic status may experience stress as a result of unstable living arrangements and may have less money for school supplies, living expenses, and transportation to school (Goldman & Bradley, 1996b). Lower SES parents generally have less education and may have difficulty helping their children with schoolwork, may value school less, and may have extended family members and peers who also value education less than working (Astone & McLanahan, 1991; Finn & Rock, 1997; Janosz et al., 1997). In addition, the lower an individual's socioeconomic status, the lower his or her vocational goals (Goldman & Bradley, 1996b). Individuals from disadvantaged families may have less motivation to continue in school and may be more motivated to enter the workforce to support either their families or themselves (Astone & McLanahan, 1991; Finn, 1989).**

**Educational and school factors**

**Educational adjustment refers to the level of success an individual has meeting the demands of academic and interpersonal challenges at school.**

**Maladjustment at school is manifested in poor academic performance and problematic behaviour such as absenteeism, discipline problems, and truancy, all of which often precede and may culminate in departure from school (Bachman, Green, & Wirtanen, 1971; Ekstrom et al., 1986; Farrell, 1990; Finn & Rock, 1997; Finn, 1989; Janosz et al., 1997, 2000; Kasen et al., 1998; Ouston, 1984).**

**Important factors affecting academic adjustment are the cognitive factors of ability and achievement level, the environmental nature of the school environment, and socially influenced academic attitudes and academic goals.**

**Ability and achievement level. Intellectual ability and achievement level are primary factors affecting educational attainment. Students who leave high school early are more likely than those who complete school to have lower intelligence, a higher incidence of learning disabilities, and lower grades (Barrington & Hendricks, 1989; Gilbert et al., 1993; Howell & Frese, 1982; Kaufman, 1990). Students are more likely to return to and remain in high school if they have higher ability levels, a history of higher grades, and a history of never having failed a grade (Gilbert et al., 1993; Kaufman, 1990).**

**School program. Students who are attending technical training programs are more likely to drop out a second time compared to students who are**

returning to academic training programs (Ekstrom et al., 1986; Goldman & Bradley, 1996a, 1996b). Individuals returning to an alternative high school program are more likely to remain in high school than individuals who are returning to a regular educational setting (Goldman & Bradley, 1996a; 1996b). Alternative programs can involve drop-in classes, distance education materials, nontraditional school locations, and having students work at their own pace. Students in alternative return-to-school programs report receiving more specialized assistance from school staff and feeling more comfortable with their peers (Goldman & Bradley, 1996a; 1996b). What school program an individual attends is probably related to other variables including achievement and ability. The greater success of students returning to alternative programs may be due to the fact that more social support is available from staff and peers in these high school programs.

Academic attitudes and goals. Academic attitudes comprise subjective affective responses to academic experiences and thoughts about oneself as a student and about school. School-related attitudes are strongly related to an individual's motivation and affect academic goals. Students who have positive, reinforcing experiences at school generally have more positive attitudes and are motivated to do school work. Powelson (1991) proposed that success in the school setting is related to feelings of competence, autonomy, and relatedness. Individuals who leave high school early are more likely to experience

dissatisfaction with school in general, reporting boredom, disinterest, and frustration with school work, courses, and their school experience in general (Gilbert et al., 1993). Students with learning problems often have accompanying difficulties which hinder academic performance such as lower achievement motivation, lower self-esteem, more failure-oriented cognitions, and more negative affect. These difficulties place individuals at higher risk for leaving school early (Finn, 1989). Individuals with higher academic self-esteem are more likely to return to high school (Kaufman, 1990).

The level of education to which a student aspires is also related to academic attitudes. Individuals with higher expectations are more likely to return to high school (Ekstrom et al., 1987; Kaufman, 1990; Wehlage & Rutter, 1986). In addition, Goldman and Bradley (1996b) found that the frequency of individuals leaving high school a second time decreased as their educational aspirations increased (high school only vs. trade school vs. university). Again, as with school program, the predictive power of education aspiration levels may be mediated by their association with ability and achievement level.

Important people in an individual's social network influence attitudes about school and goals for education and careers. High school completion is facilitated if a student comes from a family, social group, or social class whose members value completing high school. Parents play an especially important role in helping children make decisions about their schooling and work. The

parents of individuals who drop out of school are more likely to have less education than the parents of individuals who graduate from high school (Ekstrom et al., 1986). In addition, parents of early high school leavers have lower educational aspirations for their children than do parents of graduates (Ekstrom et al., 1986). Students who repeatedly drop out have lower academic and career aspirations than those who stay in school (Goldman & Bradley, 1996b; Kaufman, 1990).

Students have been found to associate with others who have similar levels of school performance and motivation (Kindermann, 1993; Tesser, Campbell, & Smith, 1984). Individuals who belong to a peer, socioeconomic class, or ethnic group whose members do not value the attainment of a high school education are less motivated, less involved in school activities, and more likely to leave (Modell & Goodman, 1990; Ueda, 1987).

#### Personal Adjustment Factors

Personal adjustment factors including behaviour problems, emotional adjustment, stress, and family and peer relations have also been found to be related to success in remaining in school.

Behaviour problems. Behaviour problems are strongly related to departure from school and include conflict with teachers (Goldman & Bradley, 1996a), conduct problems including aggression, delinquency, and criminal behaviour (Bachman et al., 1971; Cairns & Cairns, 1994; Ekstrom et al., 1986; Ensminger et

al. 1992; Farrell, 1990; Finn & Rock, 1997; Janosz et al., 1997; 2000; Kasen et al. 1998, Kessler et al., 1996; Ouston, 1984), absenteeism (Bachman et al., 1971; Ekstrom et al., 1986), and substance abuse (Finn & Rock, 1997; Janosz et al., 1997; Weng et al., 1988).

**Emotional adjustment.** Emotional adjustment factors which have been found to be more common in students leaving high school include anxiety (for females) (Kessler et al., 1996), repression (Janosz et al., 1997), and lower self-esteem (Finn & Rock, 1997). Participating in counseling is related to staying in school (Finn & Rock, 1997).

**Stress.** Stressful life events related to repeated departure from school include entering the workforce, particularly for males (Astone & McLanahan, 1971; McNeal, 1995), early sexual behaviour (Janosz et al., 1997), early parenthood (Janosz et al., 1997), and having children (for females) (Barrera, 1981). Being married has been found to be associated with being less likely to return to school (Borus & Carpenter, 1983). Students are more likely to leave school again if they have entered the workforce (Larter & Cheng, 1978), or having unstable living arrangements (Goldman & Bradley, 1996b).

**Family and peer relations.** Factors related to social support have been studied tangentially in research on students leaving high school. As mentioned above, social support has often been linked to academic attitudes. In addition, students have been found to be more likely to leave high school if they live with a single

parent as opposed to both parents (Brooks-Gunn et al., 1994; Finn & Rock, 1997; Sandefur et al., 1992), have parents who are less involved and communicate less with them, (Ekstrom et al., 1986; Rumberger, 1990), or have mothers with lower expectations (Brooks-Gunn et al., 1994). Peer social support factors seem to be quite important for whether students leave school. Students who leave school are more likely than students who remain to report having fewer friends (Janosz et al., 1997), more friends who have dropped out of school, more friends who are working, fewer same-sex friends, fewer school friends (Ellenbogen & Chamberland, 1997), lower achieving friends, and more deviant friends, (Kasen et al., 1998). Being less involved in school clubs (McNeal, 1995), and not wanting strong friendships (Ekstrom et al., 1986) have also been reported to be predictive of leaving school.

#### The Relative Strength of Predictors of Dropping out of High School

Comparing the power of predictors of dropping out of high school is difficult because different predictor variables have been used in different studies. In addition, similar variables are operationalized differently across studies. Furthermore, in many studies, the relative predictive power of various variables has not been evaluated statistically. Nevertheless, it appears that the most consistent predictors of dropping out of school are measures of academic ability and performance. Individuals are consistently found to be at greater risk for dropping out of high school once or repeatedly if they have lower grades, a

history of failing a grade, lower intellectual ability, or lower achievement test scores (Cairns, Cairns, & Neckerman, 1989; Goldman & Bradley, 1996b, Janosz et al., 1997; Kaufman, 1990; Parker & Asher, 1987). In studies which have evaluated the relative strength of predictors, academic ability and achievement variables are generally the strongest predictors (Cairns, Cairns, & Neckerman, 1989; Janosz et al., 1997, 2000; Kaufman, 1990).

A second variable consistently found to be a strong predictor of school success or dropping out is socioeconomic status (Goldman & Bradley, 1996b; Janosz et al., 1997; Kaufman, 1990; Rumberger, 1983). Parental education, which is a component of socioeconomic status, has also been found to be a strong predictor of dropping out of high school but has been less frequently included in studies (Janosz et al., 1997, Kaufman, 1990; Rumberger, 1983). Other variables related to socioeconomic status which have been shown to have moderate predictive power include family factors such as parental involvement in children's education (Kaufman, 1990) and whether or not parents have separated or divorced (Rumberger, 1983). Another measure which has moderate predictive value is whether an individual has stable living arrangements (Goldman & Bradley, 1996b). Having unstable living arrangements is probably associated with lower socioeconomic status.

Educational and vocational aspirations have moderate predictive power (Goldman & Bradley, 1996b; Janosz et al., 1997; Kaufman, 1990). These two

variables are strongly associated with both ability and achievement factors and with socioeconomic status (Kohn, 1977).

As for age, as mentioned above, the older a student is when he or she dropped out of school, the less likely he or she is to return to high school (Borus & Carpenter, 1983; Chuang, 1997). Older students, however, are more likely to remain in high school if they return (Goldman & Bradley, 1996a). Although these limited findings suggest that age may be a moderately strong predictor of likelihood of dropping out of high school, more data are required to confirm this conclusion.

Findings regarding sex suggest that it is a less powerful predictor than age. Men drop out of high school more often than women, and females are more likely to return to high school than males (Chuang, 1997; Goldman & Bradley, 1997; Kaufman, 1990). However, the differences are not large. Moreover, findings regarding how sex is related to repeated departure from school are not consistent and require further examination.

Other significant predictors which have less empirical support include behavioural problems (Rumberger, 1983), and interpersonal problems (Goldman & Bradley, 1996b). Personal adjustment factors have been shown to add to the prediction of individuals who drop out repeatedly after returning to high school, but little is known about their predictive power relative to other factors. Specific stressors such as family conflict and pregnancy have been found to be

significant predictors of dropping out (Goldman & Bradley, 1996b; Karp, 1988; Kaufman, 1990). However, as in the case for social support, many studies have not assessed the impact of a wide range of stressors using empirically well-validated measures. Janosz and colleagues (Janosz et al., 1997) found that problem behaviours, criminal arrests, and adherence to deviant norms were all predictive of dropping out of school, although these factors were less important than factors such as achievement, SES, and parental education.

### The Process of Returning to High School

Research findings on who drops out of high school initially provide an informative starting place to predicting which students will leave school more than once. However individuals who return to high school are only a subsample of the individuals who left high school initially, and the two groups may differ in important ways. Students who leave school comprise approximately 30% of the population. Only half of these individuals return to school by age 24. Students who return to school likely are different in important ways from the entire population of school leavers, but how they differ is not well established. As a group they are likely to be functioning at a higher level than the entire group of school leavers. However, the lives of these individuals are likely to be profoundly different when they return to school from what they were like when they originally left school.

Studies pertaining specifically to success in returning to high school are reviewed below. Variables shown to affect school adjustment are explored to determine what the most important variables are and how they relate to each other. Relevant research on factors associated with students dropping out of high school, college, or university for the first time is also included (Adams & Fitch, 1982; Adams, Ryan, Hoffman, Dobson, & Nielsen, 1985; Munro & Adams, 1977). In addition, pertinent research on factors related to academic and general adjustment in the late adolescent period is reviewed.

Knowledge about the process of leaving and returning to school has been advanced by studies conducted in Canada, the United States, and Australia. In Canada, three important studies have been carried out; one on a municipal scale (Larter & Cheng, 1978), a second on a provincial level (Karp, 1988), and a third on a national level (Gilbert et al., 1993; Human Resources Development Canada and Statistics Canada, 1996).

The first major Canadian study of students returning to high school involved administration of questionnaires to a Toronto-wide sample of more than 29,000 high school students, 1,150 of whom reported that they had dropped out of school and then returned (Larter & Cheng, 1978). The age range of participants was not reported. One quarter of those students who had returned to high school in this study (292 of 1,150) were randomly selected for extensive interviews. Of this group, 237 were contacted, of whom 38, or 16%, reported

that they had dropped out for a second time without graduating. This finding of a 16% attrition rate is similar to findings from other studies which indicate that approximately 25% of students drop out of high school again after returning (Goldman & Bradley, 1996b; Kaufman, 1990; Pallas, 1987). The rate of 16% attrition is likely an underestimation because 55, or 18% of the 292 students who were sought for interviews could not be contacted and this group may have included a high proportion of individuals who had dropped out of school a second time. How long students were tested after they dropped out was not reported specifically in this study, but appears to have been less than two years.

Students who dropped out were asked to give one or more reasons for leaving high school. Reasons given most frequently included having to work to make money (37%), being bored with school (24%), not doing well academically (21%), or disliking their teachers (21%). Other reasons given were poor attendance (11%), family or personal financial problems (11%), or not completing school work (11%). Not having completed school work or poor motivation could suggest learning difficulties but these factors were not assessed in this study. The self-reported reasons for dropping out were uncorroborated by other data and could, therefore, be biased by impression management strategies.

A second Canadian study of departure from and return to high school was conducted as part of the Ontario Student Retention and Transition Series (Karp,

1988). In this study, 900 individuals between 15 and 24 years of age in five Ontario cities who had dropped out of school as determined from school records were contacted by telephone. Of this group, 409 students (45%) reported that they had since returned to high school. Among this group of returning students, a total of 40% (44% of men and 36% of women) reported that they had left again and had not completed their high school education. The time between dropping out of school and participation in the study was not reported specifically but appears to have been less than one year. Students were more likely to complete high school if they were older (between 21 and 24 years of age), had parents who had attended college or university, and were of higher socioeconomic status. A majority of students (69%) stated that their experience of returning to high school was better than their initial high school experience because they were able to work at their own pace, had better relationships with teachers, and had greater personal maturity. This study provided descriptive self-report data about students' experiences returning to school, but did not include any statistical analyses.

A third Canadian study, the School Leavers Study, provided nationwide data on rates of high school non-completion and rates of returning to high school at different ages (Gilbert et al., 1993; Human Resources Development Canada and Statistics Canada, 1996). In this project, researchers surveyed approximately 10,000 young adults between the ages of 18 and 20 and then reassessed them

periodically over a seven years period. This study is important because it involved a nationwide Canadian sample and had a long follow-up period. In this study, individuals were found to be more likely to return to high school between 18 and 20 years of age than over the age of 20. This contradicts the findings of Karp (1988), who reported that students over the age of 20 were more likely to return to school. In the School Leavers Study, 18% of dropouts had not yet completed high school by age 20 and 15% had not completed high school by age 24. Men were somewhat more likely than women to return to high school (6.2% of the total sample of males; 4.8% of the total sample of females). Overall, the researchers found that, in time, about half of high school leavers returned and completed their education. No analyses, however, were performed to examine the relative contribution of variables for the prediction of likelihood of returning to school.

In the United States, two major studies have been conducted to study students leaving and returning to high school. The National Longitudinal Survey of Youth (NLSY) (Borus & Carpenter, 1983; Kolstad & Owings, 1986; Pallas, 1987; Rumberger, 1983), and the High School and Beyond Study (Ekstrom et al, 1986; Kaufman, 1990; Kolstad & Kaufman, 1989; Wehlage & Rutter, 1987) were based on nationally-drawn samples.

The National Longitudinal Survey of Youth (NLSY) included educational and other data collected over a seven year period from 11,561 individuals. On

the basis of these data, Kolstad and Owings (1986) reported that 38% of students who had dropped out had returned and completed their high school education within four years, and Pallas (1987) reported that 25% of students who had returned to high school had dropped out again. Chuang (1997) reported that the younger students were when they originally left high school the more likely they were to return to school and that individuals were more likely to return to school if they had never had problems with drugs or alcohol.

The other large-scale nationwide American study, the High School and Beyond Study (HSBS), involved interview data collected over a four year period from 30,000 students initially tested in grade 10. Kaufman (1990) reported that within four years approximately 52% of individuals who had left high school returned to high school to attempt to attain their high school diploma. In this study students were more likely to drop out of school initially if they had lower grades ( $R^2 = .11$ ), less commitment to school ( $R^2 = .08$ ), lower ability ( $R^2 = .06$ ), lower socioeconomic status ( $R^2 = .03$ ), less parental involvement ( $R^2 = .03$ ), lower educational expectations ( $R^2 = .03$ ), and lower internal locus of control ( $R^2 = .02$ ). Returning students had higher socioeconomic status, higher ability levels, higher educational expectations, and higher vocational aspirations than high school leavers who did not return to high school. Out of the sample of 1,092 students who returned to high school, 244 (or 22%) dropped out again and did not complete their high school education

during the four year follow-up time period of the study. This is similar to the finding of Pallas (1987), who found that 25% of returning students dropped out again in the NLSY.

Kaufman (1990) also conducted comparisons of students who returned to high school and remained with those who returned and dropped out again over the four years following grade 10. Analyses were conducted using family background variables (socioeconomic status, family composition, race/ethnicity, parental involvement), individual background variables (ability, locus of control, self-concept), commitment variables (educational expectations, vocational aspirations, and commitment), school variables (including variables such as type of program and teacher involvement), and social and academic integration variables (active in sports, extra-curricular activities, grades, and peer group values). Those who completed high school after returning had (in decreasing order of predictive power) higher ability levels, higher socioeconomic status, higher grades, and more internal locus of control scores, were more likely to be white or Hispanic than black, and had higher expectations for their education than those who dropped out again. This was the first large scale study which pointed to the importance of psychological variables such as locus of control for the differentiation of students who returned and finished from those who returned and left again. Factors which were related to likelihood of both initial departure and repeated departure from high school were lower socioeconomic

status, being black rather than white or Hispanic, and having lower locus of control, less cognitive ability, lower grades, and lower educational expectations.

An Australian research group has added substantially to our knowledge of the experience of returning to high school and the factors which predict whether returning students remain to complete high school (Goldman & Bradley, 1996a, 1996b, 1997). Their research was based on surveys of approximately 1,200 students who returned to high school in 1992. The Australian researchers compared students who remained to complete school with those who dropped out again. Those who dropped out a second time were more likely than students who remained in school to have lower educational and career aspirations and more unstable living arrangements, to be attending traditional high schools rather than alternative return-to-school programs, and to be experiencing interpersonal problems and conflict at school. The relative contribution of each of these variables was not assessed in this study. Returning students were also more likely to drop out again if they were younger, particularly if they were under 20 years of age (Goldman & Bradley, 1996b). This is consistent with results from the Canadian study by Gilbert et al., 1993; Human Resources Development Canada and Statistics Canada, 1996) but opposite to the findings of Karp (1988). The Australian study is the only one to date to show that school environment (traditional or not) has an impact on the prospects of students returning to school. It also included more proximal

variables than other studies since it assessed distress and interpersonal conflict in the lives of students returning to school. Four factors which differentiated between repeat school leavers and those who remained in school were attitudes to school and teachers, educational and vocational aspirations, conflict at school, and external problems such as family, financial, or transportational difficulties (Goldman & Bradley, 1996b).

Approximately 25% of the returning Australian high school students dropped out again within three months of reentering school (Goldman & Bradley, 1996b), closely approximating the 22% rate after four years reported by Kaufman (1990) and the 24% rate after seven years reported by Pallas (1987), whose study spanned a seven year follow-up period. Larter and Cheng (1978) reported a rate of 16% over a period of 2 years and Karp (1988) reported a rate of 40% over a period of about 2 years. Despite the limited number of studies available for comparison, Goldman and Bradley's (1996a, 1996b, 1997) results suggest that the first 3 months are a critical time period for whether students leave high school again and also indicate that findings obtained over this follow-up period are quite similar to studies employing a much longer follow-up period.

What we have learned from research about factors predicting success in finishing high school is summarized in Table 1, where a list of variables associated with leaving school, returning to school, and repeated departure from

**Table 1**  
**Findings From Previous Research**

<b>Variable</b>	<b>Initial Departure</b>	<b>Returning to School</b>	<b>Repeated Departure</b>
<b>Overall Proportion</b>	Ekstrom et al. (1986); 15% Goldman & B. (1996b); 25% HRDC Can. (1996); 16% Karp (1988); 40% Kaufman (1990); 22% Larter & Cheng (1978); 16% McCaul (1989); 22% Pallas (1987); 24%	Borus & Carpent. (1983); 33% Chuang (1997); 45% Goldman & B. (1996b); 40% HRDC Can. (1996); 50% Kolstad & Kaufman ('89); 44% Pallas (1987); 40%	Dowling (1994); 50% Gilbert et al. (1993); 30% Goldman & B. (1996b); 15% Kaufman (1989); 22% Pallas (1987); 25%
<b>Gender</b>	Ekstrom et al. (1986) M (16%) > F (14%) Kaufman (1990) M (14%) > F (11%) McCaul et al. (1989) M (22%) = F (22%)	Kaufman (1990) M (53%) = F (50%)	Karp (1988) M (44%) > F (36%) Kaufman (1990) M (11%) = (13%)

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
<b>Age</b>	Older more likely to leave: Goldman & B. (1996a) McNeal (1995) Older for grade: Lloyd (1978)	More older students return: Gilbert et al. (1993) Goldman & B. (1996a) Karp (1988) Kolstad & Kaufman (1989) Younger return at a higher rate: Borus & Carpenter (1983) Chuang (1997)	Older more likely to remain: Dowling (1994) Goldman & B. (1996a) Karp (1988)
<b>Ability Achievement Lower Ability/IQ</b>	Brooks-Gunn et al. (1994) Kasen et al. (1998) Kortering et al. (1998) McNeal (1995)	Kaufman (1989)	Kaufman (1989)

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
Lower Achievement/Grades	Barrington & Hendricks (1989)		
	Ensminger et al. (1992)		
	Janosz et al. (1997, 2000)		
	Kasen et al. (1998)		
	Kaufman (1989)		
	Kortering et al. (1998)		
	McCaul et al. (1992)		
	Roderick (1993)		
	Rumberger (1995)		
	Weng et al. (1988)		
Failed Grades	Barrington & Hendricks (1989)		Kaufman (1989)
	Brooks-Gunn et al. (1994)		
	Cairns et al (1989)		
	Finn & Rock (1997)		
	Roderick (1995)		

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
<u>Goals/Attitudes</u>			
Lower educational commitment	Ekstrom et al. (1986) Hawkins & Lishner (1987) Janosz et al. (2000) Kaufman (1989)		
Lower educational expectations	Ekstrom et al. (1986) Goldman & Bradley (1996a) Kasen et al. (1998) Kaufman (1989) Kortering et al. (1998) Rumberger (1995)	Borus & Carpenter (1983)	Kaufman (1989)
Lower vocational goals			Kaufman (1989)
Lower vocational expectations	Goldman & Bradley (1996a) Kaufman (1989)		

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
Dislikes school	Jordan et al. (1996)		
<u>SES</u>			
Lower family income	Anisef (1994) Ekstrom et al. (1986) Ensminger et al. (1996) Finn & Rock (1997) Figuera-McDonough (1993) Kasen et al. (1998) Kaufman (1989) Kortering et al. (1998) McCaul et al. (1992) McNeal (1995) Rumberger (1995) Rylance (1997)	Goldman & Bradley (1996a) Kaufman (1989)	Goldman & Bradley (1996a) Kaufman (1989) Larter & Cheng (1978)
Lower parental education	Astone & McLanahan (1991) Ensminger et al. (1992) Finn & Rock (1997) Janosz et al. (1997)		

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
Minority/immigrant group	<p>Anisef (1994)                      Ekstrom et al. (1986)                      Goldman &amp; Bradley (1996a)                      Kaufman (1990)                      McMillen et al. (1993)                      McNeal (1995)                      Roderick (1993)                      Rumberger (1995)                      Steinberg et al. (1984)</p>		
<u>School Factors</u>			
Type of school	<p>Technical                      Ekstrom et al. (1986)                      Goldman &amp; Bradley (1996b)                      U.S. non-Catholic schools                      Bryk &amp; Thum (1989)</p>		
Lower level of school funding		Borus & Carpenter (1983)	

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
<u>Behaviour Problems</u>			
Conduct/discipline problems/ delinquency	Bachman et al. (1971) Cairns & Cairns (1994) Ekstrom et al. (1986) Elliot (1966) Ensminger et al. (1992) Farrell (1990) Finn & Rock (1997) Janosz et al. (1997, 2000) Jordan et al. (1996) Kasen et al. (1998) Kortering & Blackorby (1992) Ouston (1984) Rumberger (1995)		
Substance use	Ensminger et al (1992) Finn & Rock (1997) Janosz et al. (1997) Weng et al. (1988)		

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
Criminal arrests	Ekstrom et al. (1986) Finn & Rock (1997)		
Absenteeism	Bachman et al. (1971) Barrington & Hendricks (1989) Ekstrom et al. (1986) Rumberger (1995)		
<u>Life Events</u> Working	Astone & McLanaha (1971) McNeal (1997)		Larter & Cheng (1978)
Early sexual behaviour	Janosz et al. (1997)		
Marriage		Borus & Carpenter (1983)	
Parenting	Sandefur et al. (1992)		
Unstable living arrangements			Goldman & Bradley (1996a)

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
Family responsibilities	Jordan et al. (1996)		
Changing schools	Rumberger (1995) Stroup & Robins (1972)		
<u>Emotional Adjustment</u>			
Higher anxiety and depression	Kessler et al. (1996) Rylance (1997)		
Higher repression	Janosz et al. (1997)		
External locus of control	Finn & Rock (1997) Kaufman (1989) Rumberger (1995)		Kaufman (1989)
Not participating in counseling	Rylance (1997)		
Lower self-esteem	Finn & Rock (1997) Rumberger (1995)		

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
<u>Family Relationships</u>			
Single parent family	Brooks-Gunn et al. (1994) Finn & Rock (1997) Sandefeur et al. (1992)		
Less parental involvement	Ekstrom et al. (1986) Rumberger et al. (1990) Rumberger (1995)		
More lenient curfew	Ensminger et al. (1992)		
Lower maternal expectations	Brooks-Gunn et al. (1994)		
<u>Peer Relationships</u>			
Fewer friends	Ekstrom et al. (1986) Janosz et al. (1997)		
More dropout friends	Ellenbogen & C. (1997)		
More working friends	Ellenbogen & C. (1997)		

(table continues)

Table 1 (continued)

Variable	Initial Departure	Returning to School	Repeated Departure
Fewer same-sex friends	Ellenbogen & C. (1997)		
Fewer school friends	Ellenbogen & C. (1997)		
Lower achieving friends	Kasen et al. (1998) Kortering et al. (1998)		
Deviant peers	Kasen et al. (1998)		
Less school club participation	McNeal (1995)		

school from different studies are presented. The proportion of students in the various studies who left or returned to school are also indicated.

In reviewing research on students leaving, returning to, and repeatedly leaving high school it becomes apparent that research on the last two phenomena is very limited compared to that of students who have left school for the first time. Variables which have been found to be consistently related to repeated departure from school include being male, younger, being of social groups with lower SES, and having lower achievement level. Personal adjustment factors appear to constitute a promising area for research although less research has been done in this area.

Previous research on students returning to high school is limited methodologically for a number of reasons. One factor is that almost all of this research involved data collected in the 1980's. Labour force changes since that time have led to changes in educational requirements for many jobs, so that findings may not generalize to the current era. Another limitation of most studies regarding students returning to school is that in only a few were the relative strength of variables studied. Furthermore, very little previous research has involved the use of psychometrically sound measures to explore psychological constructs in more depth. An additional issue is that nearly all of the previous studies were conducted in regular high school settings which are a less common environment in which students return to school. Currently many

students return to specialized alternative schools, college programs, or complete schooling by correspondence so that there may be limits to the generalizability of previous results to current educational practices.

#### Future Directions for Research

One of the difficulties in interpreting research on repeated departure from school is that numerous variables used as predictors are likely to be correlated with each other. For example, age, type of school attended, and vocational aspirations are probably related. However, there is little information on which of these related variables predicts best. Another set of variables likely to be intercorrelated are socioeconomic status, ethnicity, and stress. Future research regarding predicting repeated departure from high school would be improved by analyses of the relative predictive value of variables. Our understanding of why people remain in school would also be furthered by analyses examining which more proximal factors mediate the impact of more distal factors such as age, sex, and SES on success in returning to school.

The developmental psychopathology approach appears to be the most useful theory from which to study success in returning to school because it points to the importance of a broad range of variables which are predictive of leaving high school and suggests the importance of examining developmental changes. However, researchers to date have examined only the impact of demographic factors, intellectual ability and achievement, and a limited number of other

psychological and social variables on likelihood of remaining when returning to school (Goldman & Bradley, 1996a, 1996b, 1997; Human Resources Development Canada and Statistics Canada, 1996; Karp, 1988; Kaufman, 1990; Larter & Cheng, 1978). Few of the studies reviewed above involved extensive investigations of psychological variables. Little is known, for example, about how stress, social support, coping strategies, and developmental factors such as vocational identity development may influence success in returning to high school. A review of the literature below on how such psychological factors are related to general adjustment and school adjustment in particular and on how they evolve developmentally demonstrates why such variables may be important to study in students returning to high school.

#### Stress, Coping, and Social Support

Research on stress and on how individuals adapt to stress through different coping responses and the use of social support has been an important area of research in adolescence and young adulthood (Compas, 1987; Frydenberg, 1997). Stress, coping, and social support have been found to be important predictors of adjustment among adolescents in a variety of populations such as pregnant teenage girls (Barrera, 1981), adolescents of different cultural groups, (Seieffge-Krenke & Shulman, 1990), and adolescents with physical disabilities (Anderson, 1979), physical illness (Ebata & Moos, 1991), and depression (Nolen-Hoeksema, 1981). Stress and coping during educational transitions such

as the change from elementary to junior high school and between junior high school and high school have been of particular interest to researchers (Abramowitz, Petersen, & Schulenber, 1984; Blyth, Simmons, & Carlton-Ford, 1983; Ladd & Price, 1987; Reyes, Gillock, Kobas, & Sanchez, 2000; Simmons, Carlton-Ford, & Blyth, 1987). Little research, however, has been targeted at understanding how these personal adjustment variables relate to high school completion. In some research on high school leavers and their return to high school, however, some indices related to the constructs of stress, coping, and social support have been included (Goldman & Bradley, 1996a, Kaufman, 1990). These findings are discussed below.

Stress. Stress is a characteristic of events which require physiological or psychological adaptation (Lazarus & Folkman, 1984). Compas (1987), who has been influential in conducting research on psychological stress in adolescents, suggests that stressors can be of three general types: everyday hassles, chronic stressors such as illness, poverty, or psychopathology, and acute stressors such as the death of a family member. The more stressful life events a person experiences, the more likely the individual is to experience a negative outcome such as psychopathology, physical health problems, or unemployment (Rutter, 1990).

Chronic stressors which predict dropping out of school are lower family socioeconomic status, family disorganization, and family conflict (Dryfoos,

1990). Individuals who have left home or who have conflictual, unsupportive relationships with family members are more likely to leave high school for a second time (Goldman & Bradley, 1996a; 1996b). More children from blended families have to move and change schools and this is thought to lead to academic problems, and dropping out of school (Ministry of State for Youth, 1990). Other family stressors found to be related to dropping out of school include family illness and death (Ministry of State for Youth, 1990).

There is a significant association between the adolescent's relationships with family and with peers. Children who have difficult family relationships are more likely to have peer relations that are not monitored by parents, and are more likely to associate with deviant peers (Astone & McLanahan, 1991). In turn, these experiences with deviant peers may increase family discord, and this may be a further source of stress. Peer relationship factors which are related to dropping out of high school include conflictual peer relations, isolation from peers, and associating with peers who value school less and engage in deviant behaviour more often (Parker & Asher, 1987).

Studies of students who drop out of or return to high school have not included standardized measures of stress, but rather have merely asked what specific life events were related to the individual's departure from school. Specific stressful life events which have been found to be associated with leaving high school include having a child, leaving home, working full time, and having

an unstable home life (Goldman & Bradley, 1996b; Kaufman, 1989). The primary limitation of this research is that, although these events do seem to be stressful events, their importance relative to other predictors has not been evaluated. Moreover, in these studies, participants did not answer questions about a wide range of potentially stressful life events using a well-validated, psychometrically powerful measure of stress.

Coping. Coping refers to purposeful reactions to stressful events which help to determine the way in which stress affects an individual (Compas, 1987). Coping responses are carried out in order to balance both external and internal demands that surpass the level of a person's resources (Lazarus & Folkman, 1984).

Problem-focused coping responses are outwardly directed and include activating problem-solving cognitions as well as taking direct action to achieve a solution or asking for practical assistance. Emotion-focused strategies are inwardly directed attempts to regulate emotional arousal levels in response to a stressor. Examples of adaptive attempts to regulate emotion include healthy forms of distraction, exercise, or talking with others. Researchers have theorized that these methods of coping are used differently by males and females, with problem-focused coping being more typical of males and emotion-focused coping being more typical of females, but reliable gender differences have not been found (Copeland & Hess, 1995; Ptacek, Smith, & Zanas, 1992).

Both forms of coping have been demonstrated to be important and effective in their own way (Seiffge-Krenke & Shulman, 1990). With some life challenges, both problem-focused and emotion-focused coping are required. In some instances, however, only one or the other approach may be effective. In addition to problem-focused and emotion-focused coping, a third kind of coping response has been proposed which includes more avoidant forms of coping, encompassing unproductive venting of feelings, and behavioural and mental disengagement (Carver, Scheier, & Weintraub, 1989). Venting of feelings includes outbursts of anger at others. Behavioural and mental disengagement include unhelpful forms of distraction such as substance use. In general, avoidant responses which distract the person's attention from emotions associated with stressors and the stressors themselves do not help the individual to cope effectively (Seiffge-Krenke, 1993; Shulman, 1993). The coping styles of adolescents have been classified into the same three categories as those generated in adults: internal/emotion-focused, active/problem-focused, and withdrawal/avoidant (Barrera, 1981; Seiffge-Krenke, 1993; Shulman, 1993).

Researchers have examined coping behaviours in various adolescent populations and found that they are related to mental health outcomes for individuals from different cultural groups, (Seiffge-Krenke & Shulman, 1990), and adolescents with physical disabilities (Anderson, 1979), physical illness (Ebata & Moos, 1991), and depression (Nolen-Hoeksema, 1981). However,

there are no data regarding the relationship between coping strategies in high school students and success in completing high school. Nevertheless, it is likely that individuals who use the more effective problem-focused strategies and emotion-focused coping strategies rather than avoidant strategies will do better in school and will be less likely to drop out. Avoidant strategies could include avoiding doing school work, and avoiding attending school. Effective strategies may include taking concrete, problem-focused steps to deal specifically with the challenges of school, such as effective time management and completion of assignments on time. In addition, it is likely that effective emotion-focused approaches to coping with stress such as self-praise and taking care of negative feelings could also be helpful in adapting to the demands of school.

Social Support. Social support refers to emotional, informational, and material resources accessed from and provided by others (Thoitis, 1986). There are many instances when an individual receives support from others, such as money or other gifts, that do not qualify as effortful coping behaviour. Social support has been found to be related to adjustment in adolescent groups that are at risk for psychological difficulty such as pregnant teenage girls (Barrera, 1981), inner city low SES adolescents experiencing high stress (Cauce, Felner, Primavera, 1982), and adolescents with a depressed or physically ill parent (Hirsch & Reisch, 1985). Social support has also been found to be associated with successful developmental transitions during adolescence such as in

adolescents who are going through the transition into junior high school (Fenzel & Blyth, 1986) and older adolescents going through the transition from high school into college (Compas, Wagner, Slavin, & Vannatta, 1986). Developmental changes in social support have been found in that older adolescents report that they rely more on friends than family for social support (Boldero & Fallon, 1995).

Kaufman (1990) found that students returning to high school were more likely to remain in school if they had good relationships with parents, mentors, or teachers who were concerned about their education and who were supportive in general. Supportive friends, family, and school staff can help students deal with life stress, school work, and establishing future goals (Finn, 1989). Adolescents have been shown to be more likely to complete high school if they have positive, supportive relationships with parents who use effective parenting strategies and are involved in their child's education (Astone & McLanahan, 1991; Kaufman, 1990). Support from peers at school also appears to be important for remaining in school. Being rejected by one's peers is related to a greater likelihood of dropping out of school as well as to poorer outcomes such as psychopathology and unemployment (Parker & Asher, 1987). Low rates of participation in school social activities are also related to dropping out of school (Gilbert et al., 1993; Mahoney & Cairns, 1997). However, it appears that it is not just whether one has social support but also who provides that support and

what their values are. Many students who drop out have friends who have already dropped out, or friends outside of the school environment (Cairns & Cairns, 1994).

These findings fit with the participation-identification model of early high school departure described previously (Finn, 1989). Within this model, individuals who do not participate in school activities or identify with the values of the academic environment become less of a part of the social milieu and become disengaged from the schooling process. Some researchers such as Svec (1986) believe that the understanding and support of peers is very critical for engagement at school. There is evidence that students are more likely to remain in high school if they are returning to an alternative program specifically designed for individuals who have dropped out (Goldman & Bradley, 1996b), and this may be because they are more similar to their peers and thus more accepted by them. Students who return to school are also more likely to leave again if they report social disengagement from and conflict with school staff members about issues such as rules for acceptable conduct (Goldman & Bradley, 1996b). Therefore, support from school staff also appears to be important.

### Identity Formation

Ego identity is a construct that was introduced by Erikson (1968), who suggested that identity development is a critical task during the late adolescent

period. One important aspect of identity involves finding an occupational niche as one moves toward adulthood. Erikson (1968) suggested four possible states of ego identity status. Identity diffusion involves having no clearly established vocational identity. Individuals can establish an identity through foreclosure, which involves choosing a vocation essentially without exploring different options. A moratorium involves choosing not to commit to a specific vocation at a given point in time but taking time to explore possible identities.

Vocational identity achievement involves commitment to a career choice and personal ideology. Marcia (1966, 1980) expanded upon Erikson's conceptions of identity formation and proposed that the four different identity statuses emerge temporally in the order described above: diffusion, foreclosure, moratorium, and achievement.

This theoretical framework has been applied to students in college (Adams & Fitch, 1982; Adams, Ryan, Hoffman, Dobson, & Nielsen, 1985; Munro & Adams, 1977). Researchers found that younger college students were more likely to show identity diffusion or foreclosure, either having no clear direction in their identity development or having a constrained sense of identity (Adams & Fitch, 1982; Adams et al., 1985; Munro & Adams, 1977). Older college students were more likely to be engaged in exploring and defining their vocational identities (identity moratorium), or to have accomplished identity formation. In studies of ego identity factors and their relation to college student

attrition, Adams and colleagues (1979) and Marcia, Waterman, Matteson, Archer and Orlofsky (1993) reported that, among individuals who were planning to enter college or university, those who had established their identity (and were in the identity achievement stage) were more likely to remain in school.

However, the use of a college population provides only a partial test of the importance of ego identity status in adolescents and the results of studies carried out with students intending to attend college probably are not generalizable to students who have had less education. Studying ego identity status in a generally younger, less well educated group offers an opportunity to test the generality of Erikson's hypotheses about adolescent development.

Standard measures of ego identity also include measurement of political beliefs and religious values (Adams, Fitch, & Shay, 1979; Marcia, 1966, 1980). These more abstract aspects of ego identity may be less relevant to students who are returning to high school than to older groups who have had more education.

Ego identity factors, and particularly vocational identity, have not been studied in students leaving or returning to high school. The student returning to school may be more likely to remain if he or she is in a moratorium phase or an identity achievement phase rather than in identity diffusion or foreclosure phases of identity development. This could be because students who have a diffused or foreclosed sense of identity may value school less, or because individuals who are in a moratorium phase may be more likely to view returning to school as a

positive opportunity for self-exploration, self-development, and planning for the future. An individual who has a well-established vocational identity may be the most likely to succeed when returning to school. Vocational aspects of ego identity should thus tell us more about who is likely to remain in high school.

Vocational variables have been examined by only a few researchers studying the process of returning to high school (Goldman & Bradley, 1996b; Kaufman, 1990; Ekstrom et al., 1987; Wehlage & Rutter, 1986). However, vocational aspirations are linked to educational aspirations, and numerous researchers have found that students are more likely to leave high school a second time if they are focused on getting a job with few academic requirements and less likely to leave again if they are focused on a career requiring more academic training (Goldman & Bradley, 1996b; Kaufman, 1990; Ekstrom et al., 1987; Wehlage & Rutter, 1986).

Being older is associated with greater success in returning to school. The older a student is when returning to high school, the more likely he or she is to remain and finish (Goldman & Bradley, 1996). Developmental changes over time in the individual's vocational identity status could account for the apparent association of age with the likelihood of returning to and remaining in school.

In summary, a better understanding of variables such as vocational identity, stress, coping, and social support should allow for a better assessment of the risk and protective factors influencing individuals returning to school,

particularly among the restricted-range high risk groups who have low ability and come from low SES groups. Assessment of these variables could also help with the design of effective interventions for individuals returning to high school.

### The Present Study

In the present study, a set of developmental and personal adjustment variables (vocational identity, stress, coping, and social support) were compared with a set of previously identified factors (age, sex, SES, achievement level) as predictors of success in students returning to high school. The inclusion of previously well-established predictors (age, sex, socioeconomic status, academic achievement level) allowed an assessment of the relative importance of the variables highlighted in this investigation (stress, coping, social support, and vocational aspects of ego identity), and evaluated whether the new variables added substantially to predictors beyond what the variables already studied contributed. In this study more psychometrically robust measures were used than in previous research.

A longitudinal design was used to examine whether students left high school again within the first term after having returned to school. Studies of students returning to high school have used follow-up periods of 3 months (Goldman & Bradley, 1996), 2 years or less (Karp, 1988; Larter & Cheng, 1978), 4 years (Kaufman, 1990) and 7 years (Pallas, 1987), yielding quite consistent estimates

of the risk of dropping out for a second time despite large differences in the length of the follow-up (25%, 40%, 16%, 22%, and 25%, respectively). This suggests that a follow-up period of one term, or 4 to 6 months would be adequate to estimate the true rate of repeated failure to finish high school.

Individuals who left school again were hypothesized to have a less well developed sense of vocational identity, higher levels of stress, fewer problem-focused and emotion-focused coping skills and more avoidant coping skills than individuals who remained in school. It was also hypothesized that students who returned and remained in high school would report receiving significantly more support from family and friends. Based on previous research, ability, socioeconomic status, and age were expected to contribute significantly to the prediction of those who remained in school. In line with previous studies, it was predicted that students who dropped out again would be more likely to be younger, male, and of lower socioeconomic status. However, vocational identity, stress, coping strategies, and social support were also expected to add significantly to the prediction of who remained in school. Individuals with higher stress levels, less social support, lower socioeconomic status, and a less developed sense of vocational identity were also expected to have lower attendance rates, to earn fewer credits, and to earn lower grades.

## Method

### Participants

For the present study, students who were 21 years old or younger when returning to school were identified. Research participants were recruited in high schools and colleges in Alberta where high school usually spans 3 years (grades 10, 11, and 12) and requires the completion of 100 credits. Only participants who did not have 100 credits were included in analyses. Of the 512 students who filled out the questionnaire, 59 had completed their 100 credits, and 453 had not. A total of 453 participants (288 female, 165 male) completed questionnaires for the study. Of the 288 female participants, 79 (31.3%) were mothers.

Two participants withdrew from the study after having completed their questionnaires. In schools and colleges where questionnaires were handed out in a setting such as a library or lunchroom outside of classroom time, approximately 10 individuals stated that they were interested in participating in the study but did not return to do so.

Students were drawn from 8 alternative high schools ( $n = 267$ ), one regular high school ( $n = 1$ ), a 'fourth year' high school (for students who had attended the typical 3 years of high school but had not earned their diplomas) ( $n = 42$ ), a school for mothers ( $n = 46$ ), and 3 college based high school completion programs ( $n = 98$ ). Of the eight alternative high schools, six involved the use of

long-distance learning materials and drop-in consultation times with teachers.

The seventh alternative school (which contributed 2 participants) was a computer-based school with drop-in consultations with instructors. The eighth alternative school program, from which 5 participants came, provided six weeks of seminars and then streamed students into other alternative school programs. Although an original goal of the project was to include students returning to traditional high school programs, there was little interest on the part of school staff to involve these students as there are currently so few students who return to regular high schools. Only 1 regular school participated and only 1 student met the criteria for the study at this school. Data from this student were combined with data from students in the fourth year high school. The remaining participants came from students returning to college based high school completion and upgrading programs.

Two of the alternative schools and the one regular school were situated in suburban areas. Together, these programs accounted for 15 students. All college based programs and all other schools were in urban areas.

### Procedure

Participants were given a recruitment letter describing the study (see Appendix A) and signed informed consent forms (see Appendix B). The parents or guardians of participants under the age of 18 were also given a recruitment letter (see Appendix C) and signed informed consent forms for their children or

wards (see Appendix D). Participation was voluntary and participants were assured that they were free to withdraw from the study at any time.

Students were recruited in classrooms, and completed questionnaires either in classrooms or in a common area such as a lunch room. Participants participated in a brief interview and completed self-report measures of vocational identity, stress, coping, and social support which took between 20 to 30 minutes to complete. All students who participated in the study received a \$5 gift certificate to thank them for their involvement.

### Measures

Whenever possible, well-documented and psychometrically robust instruments designed for use with adolescents were selected. Measures were screened to ensure that the level of complexity of the questions would not surpass the reading level of participants. Participants completed questions about the grade he or she was currently enrolled in, the last grade completed, age at leaving school, current age, time out of school, number of credits left to complete at school, and reason for returning to school. Students were also asked how many times they had returned to high school.

The type of school to which students returned (alternative, regular, school for mothers, 4<sup>th</sup> year high school, and college) was noted and examined as a descriptive variable. No statistical analyses were conducted on type of school

because type of school was correlated with a number of other predictor variables such as gender, age, and achievement level.

Participants were asked what their original reason or reasons for leaving school and their reason or reasons for returning to school were. If students reported more than one reason for having left school, only their first reason was used in statistical analyses. Reasons for initial departure from school were elicited using as an open-ended question. If students gave more than one reason for having left school only the first reason was used in analyses. Students were also asked to state whether 8 possible reasons for returning to school, based on a list compiled by Goldman & Bradley (1996b), applied to them (Appendix E). The authors of this measure did not report reliability or validity data on this set of questions. Questions about parental occupations were included to establish family socioeconomic status (Appendix F), and the Blishen, Carroll, and Moore (1987) system for coding socioeconomic status level was used.

Achievement. School record data on standardized grade 9 province-wide Albertan achievement tests were accessed for participants to provide a measure of academic achievement level prior to entry into high school. Language arts and mathematics test scores were sought. Data on at least one test were available for 273 participants. For 221 participants, both language arts and math scores were available. For 36 participants only, language arts scores were available, and for 12 students only, mathematics scores were available.

Because more students had language arts scores (257), it was decided that these would be the only scores used as a measure of achievement.

Of the 180 individuals for whom scores were not available, 28 individuals reported that they had attended grade 9 outside of the province of Alberta. They, thus would not have written the achievement tests. The group of 152 who had attended grade 9 in Alberta but had no achievement test scores were significantly younger when they left school ( $M = 16.5$  years) than the other 301 participants ( $M = 17.0$  years),  $t(452) = 3.6$ ,  $p < .01$ . The students who did not have achievement test data probably were absent on the dates of testing or had left school before the end of grade 9.

Vocational Identity Scale (VIS). Vocational identity was assessed using the 18-item Vocational Identity Scale (VIS) drawn from the questionnaire My Vocational Situation (Holland, Daiger, & Power, 1980; Holland, Gottfredson, & Power, 1980). My Vocational Situation has been widely used with individuals as young as junior high school students.

The goal of My Vocational Situation is to assess whether an individual is having difficulty making a career choice because of lack of vocational identity, lack of information, or barriers. The 18-item Vocational Identity Scale assesses the extent to which individuals have decided on a career path. Two other subscales, lack of information and barriers, were not used in the present study.

The Vocational Identity Scale has been shown to have moderate internal consistency; items correlate between .35 and .67 with the total score (Holland, Gottfredson, & Power, 1980). Test-retest reliability of VIS scores for 2,532 college freshmen with undeclared majors over a period of 3 to 5 months was .64 (Lucas, Gysbers, Buescher, & Heppner, 1988). Kuder-Richardson split half correlations were .86 for high school students, and .89 for college students and adult workers (Holland, Daiger & Power, 1980; Holland, Daiger & Power, 1980).

Extensive validity data are available for the VIS. With a sample of college students, Savickas (1984, 1985) reported that the VIS score correlated .44 with the Ego Identity Scale developed by Tan, Kendis, Fine, and Porac (1977). As might be expected from a developmentally-based construct, VIS scores increased over the following four groups for both males and females; high school students, college students, full-time workers, and graduate students and faculty (Holland, Daiger & Power, 1980). In another study, Grotevant & Thorbecke (1982) found that there were no sex differences in VIS scores for high school students.

Holland, Gottfredson, and Power (1980) reported that VIS scores of high school students correlated negatively with the number of personal concerns individuals reported they would like to discuss with a counselor ( $r = -.23$  for females,  $r = -.29$  for males). The VIS scores of individuals aged 16 to 69 were

also correlated with examiner ratings of being well-organized ( $r = .26$ ), being at loose ends ( $r = -.25$ ), being self-confident ( $r = .28$ ), and being competent to handle life well ( $r = .32$ ). Leong & Morris (1989) found that VIS score was negatively correlated with social avoidance and distress ( $r = -.21$ ), and with intolerance of ambiguity ( $r = -.26$ ).

Lucas, Gysbers, Buescher, and Heppner (1988) found VIS scores of college students were not significantly correlated with grade point average. However, using a large sample of college students ( $n = 1290$ ) Gehlert, Timberlake and Wagner (1992), reported that VIS scores correlated with high school academic rank ( $r = .06$ ,  $p < .05$ ), Composite American College Test scores ( $r = .06$ ,  $p < .05$ ), and first semester college grade point average ( $r = -.06$ ,  $p < .05$ ). Although these correlations were statistically significant, the relationships do not appear to be strong enough to have clinical significance. These findings suggest that vocational identity is related weakly to some but not all aspects of academic performance.

Scores for the Vocational Identity Scale have a potential range of 0 to 18, with higher scores indicating a more well defined sense of vocational identity.

**Life Events Questionnaire (LEQ).** The Life Events Questionnaire (Newcomb, Huba, & Bentler, 1981) is a measure of the stress experienced by adolescents. One advantage of using this scale with a population of individuals who have dropped out of high school is its brevity. The 39-item questionnaire

yields seven scales pertaining to stress in the following domains: family/parents (five items), accident/illness (four items), sexuality (seven items), autonomy (eight items), deviance (three items), relocation (three items), and distress (six items). Three items do not load on any of these scales. Based on research participant ratings of whether items represented positive or negative life events, 17 items reflect positive events and 22 negative events. Questions from this questionnaire appear in Appendix G. Sample positive life events included "took a vacation without parents" (autonomy subscale) and "fell in love" (sexuality subscale). Negative life events included "got in trouble with the law" (deviance subscale) and "death in family" (accident and illness subscale).

Internal consistency reliability coefficients for the seven scales were reported by the authors of the scale to range from .36 to .58. Evidence for the validity of the Life-Events Questionnaire comes from comparisons of its scores with measures obtained from functioning in psychological and health domains. Significant positive correlations were found between stress scores and measures of headache proneness ( $r = .48$ ), insomnia ( $r = .46$ ), depression ( $r = .95$ ), illness sensitivity ( $r = .80$ ) and thought disorganization ( $r = .60$ ).

In response to concerns of the schoolboards, five questions (four negative and one positive) were not asked ("got or gave a venereal disease", "had a gay experience", "lost virginity", "got or made pregnant", and "parent abused alcohol"). In addition, three questions (one negative and two positive) which

were not part of subscales were also not asked ("brother or sister moved out", "met a teacher I really liked", and "got religion"). Therefore 14 of the 17 positive life events and 17 of the 22 negative life events items were included.

Participants were asked which of the life events noted in each item had occurred during the past year. Each event identified was given a score ranging from -2 to 2 indicative of the positive or negative nature of the event and the magnitude of the stress assigned to that item by raters. Scores of -2 to 2 indicated levels of highest stress. A total life events score comprising the sum of weightings for positive and negative life events reported to have been experienced had a potential range of 1 to 34.54. The total life events score was used for initial analyses.

Adolescent Coping Orientation For Problem Experiences (A-COPE). The Adolescent Coping Orientation For Problem Experiences scale (Patterson & McCubbin, 1987) is used to assess the use of different coping strategies during adolescence. The A-COPE contains 54 items which cluster into 12 factor subscales (Patterson & McCubbin, 1987). Three subscales which were summed to measure problem-focused coping were: developing self-reliance, solving family problems, and engaging in a demanding activity (10 items total). Examples of problem-focused coping from each of these three subscales are 'try to make your own decisions', 'talk to your mother about what's bothering you', and 'try to improve yourself (get body in shape, get better grades, etc.)'.

Emotion-focused coping scores included five subscales: developing social support, seeking spiritual support, investing in close friends, seeking professional support, and being humorous (15 items total). Examples from the first three subscales are 'talk to a friend about how you feel', 'pray', and 'be close to someone you care about.' The four subscales totalled to index avoidant coping included ventilating feelings, seeking diversions, avoiding problems, and relaxing (23 items total). Examples from the first three subscales are 'get angry and yell at people', 'watch TV', and 'use drugs (not prescribed by a doctor)'.

In the original development of the A-COPE measure, internal consistency reliabilities ranged from .50 to .76 (Patterson & McCubbin, 1987). Internal reliability coefficients for the 12 factor subscales ranged from .45 to .80, with most exceeding .70 (Copeland & Hess, 1995).

For each participant an overall continuous coping score (with a possible range of 48 to 240) was computed as a composite coping score. In exploratory analyses, questions on the A-COPE measure have been grouped into problem-focused, emotion-focused, and avoidant-focused coping scales (Compas et al., 1993). Although reliability and validity analyses are not available for these three subscales, if the total coping score was a significant variable in analyses, additional analyses using the three coping subscale scores were carried out. Problem-focused coping has a potential range of 10 to 50, emotion-focused

copied a potential range of 15 to 75, and avoidant coping a potential range of 23 to 115. (See Appendix H).

**Perceived Social Support Scale (PSS)**. The Perceived Social Support Scale was employed to measure perceived social support from family and friends (Procidano & Heller, 1983). This is a 40-item measure with 20 questions pertaining to family and 20 parallel questions pertaining to friends. The scale asks about the perceived adequacy of social support. Items include, for example, "certain friends come to me when they have problems or need advice" and "my family is sensitive to my personal needs". Each item asks whether the statement applies to the respondent with possible responses being "yes", "no", or "don't know". Scoring involved assigning a score of 1 to "yes" responses, 0 to "no" or "don't know" responses. The scale has been used with both adult and adolescent samples.

Procidano (1992) reports internal consistency alphas from .84 to .90 for support from friends and .88 to .91 for support from family members for this measure. One month test-retest reliability coefficients ranged from .75 to .81 for the support of friends and .80 to .86 for the support of family members in males and females with alcoholic and nonalcoholic fathers.

Some evidence of the validity for the PSS was provided by Procidano (1988), who found perceived support from friends to be correlated with self-reports of number of friends. Females reported more support from friends than

did males (Procidano, 1988). Higher scores of support from friends were significantly related to increased numbers of observed interpersonal disclosures with friends and decreased reports of anxiety (Procidano, 1992).

Procidano (1988) compared perceived support from friends and family across samples of college students, individuals with diabetes, and individuals with psychiatric illnesses. Similar levels of support from family were reported by college students and by individuals with diabetes, and both groups reported greater support from family than did individuals with psychiatric illnesses. College students reported more support from friends than either of the other two groups, whose mean scores did not differ.

The PSS yields a composite score with a maximum total of 40. Scores for the two subscores of Family Support and Support from Friends have a maximum of 20 (see Appendix I).

Measures of Success in Staying in School. At the end of the term during which students first returned to school, school records were examined to determine whether students had left school or completed the term. In addition, attendance records, the number of weeks completed, grades in courses, and number of credits earned were recorded. For students who were in alternative schools and who had re-entered school at times other than the beginning of a semester, data on success in returning to school were collected 4 months after they had resumed their studies.

Attendance was calculated differently for students attending alternative schools than for those attending other types of schools. In six of the alternative schools where students attended on a drop-in basis ( $n = 282$ ), attendance was calculated as the total percentage of a maximum of 30 hours attended per week because there were no set class times. For students in other types of schools, attendance was recorded in terms of number of classes attended. These different attendance measures were analysed separately.

### Power Analysis

A analysis of the number of participants required for a medium level of statistical power was conducted using criteria proposed by Cohen (1992). The primary analyses were multiple regression analyses with eight predictor variables: age at return to school, gender, socioeconomic status, achievement level, vocational identity level, stress level, coping score, and social support. With eight variables, a significance level of  $p < .05$ , and power set at .80, Cohen (1992) recommends a sample of 107 participants. (For a small effect size, 757 participants). Given that there were 453 participants, analyses should have been sensitive to medium effect sizes and even perhaps small effect sizes.

### Results

Statistical analyses were performed using SPSS. Data were first screened for missing values, univariate and multivariate outliers, and normality of distributions. No predictor variables had distributions which departed

significantly from normality. For all predictor variables complete data were available for all participants except for grade 9 achievement scores. Both language arts and mathematics achievement scores were available for 220 participants. Because achievement data were available for only about half the sample, 2 sets of analyses were conducted: the first set included only the sample for whom both achievement scores were available, and a second set on the whole sample excluding achievement scores as a predictor.

In order to determine if there were significant differences between students for whom achievement data were available as compared to those for whom this data were not available, a MANOVA comparing the 2 groups on age at return to school, family socioeconomic status, vocational identity, stress, coping, and social support was conducted. None of the variables were found to differ significantly between the two groups. In addition, a chi square analysis, conducted to determine if the proportion of males and females differed between those students for whom achievement data were available and those for whom such data were not, did not reach significance.

Life events scores were available for only 451 (99.6%) of the total sample. For the Adolescent Coping Orientation for Problem Experiences, scores were prorated if there were 5 or fewer missing items. If more than 5 items were missing, mean scores were substituted. This was done for 5 respondents. For the Vocational Identity Scale, the Life Events Questionnaire, and Perceived

**Social Support questionnaires, if there was no response to an item, a zero score was assigned. On outcome variables, data were available for all participants except for number of weeks in program (n = 441, 97.4% of total sample). Mean scores were substituted for these participants.**

**For continuous variables, identified univariate outliers were given a score three standard deviations from the mean score. Using the Mahalanobis distance procedure, two multivariate outliers were identified and eliminated. Outcome variables univariate outliers were also pinpointed and eliminated. The distribution of values for the total number of credits and number of core courses average were normally distributed, as were the distributions of attendance of students in drop-in courses, and the distribution of attendance of students in programs with set times for classes.**

**With the outcome variable 'number of weeks in program' a minor transformation was performed such that all students who completed their program (which ranged from 14 to 19 weeks in duration) were coded as having attended for 19 weeks. This was done in order to differentiate between, for example, an individual in a 14 week program who had completed his or her program with a student who had dropped out after the 15<sup>th</sup> week of a 19 week program. Because the majority of students (77.3%) stayed in their programs the whole term (14 to 19 weeks) the distributions of the number of weeks attended was not normally distributed but was negatively skewed (-1.9) with a positive**

kurtosis value (2.2). The shape of the distribution was not transformed further because the number of weeks attended was examined using the survival analysis Cox regression procedure.

Five participants gave names which did not appear in school or college files so that outcome measures of time in school, credits earned, attendance, and marks earned could not be computed. Data from these 5 individuals were not included in analyses.

### Descriptive Statistics

The mean age of participants was 18.18 years ( $SD = 1.38$ ) with an age range of 14.55 to 21.62 years. When age was examined as a function of type of program there were significant differences between programs,  $F(3, 449) = 81.89, p < .001$ . Tukey's HSD post-hoc analyses were used to identify significant differences between programs. Students in alternative schools comprised the youngest group of participants ( $M = 17.63$ ). The average age of students in the school for mothers ( $M = 17.81$ ) did not differ significantly from the age of students in the alternative high schools. Students attending a special 'fourth year' high school or completing their fourth year of high school in a regular high school were significantly older ( $M = 18.67$ ) than students in both alternative high schools and the program for mothers. Students in college programs were significantly older ( $M = 19.63$ ) than students in all other groups.

Means and standard deviations for descriptive and predictor variables are presented in Table 2. Participants originally left school at an average age of 16.80 years ( $SD = 1.41$ ), with a range of 10.15 to 20.74 years. Students returned to school on average at the age of 18.17 years ( $SD = 1.38$ ), with a range of 14.55 to 21.62 years. Two MANOVA analyses were conducted to compare the scores of males with those of females, and the scores of mothers with those of nonmothers. The MANOVA examining gender differences was significant,  $F(10, 442) = 5.39$ ,  $p < .001$ . Using a Bonferroni-corrected alpha level of .005 for a series of subsequent ANOVAs, females were found to have left school ( $F[1, 442] = 10.36$ ,  $p < .001$ ) and returned to school ( $F[1, 442] = 8.40$ ,  $p < .004$ ) at a younger average age than males and to have higher coping ( $F[1, 442] = 27.38$ ,  $p < .001$ ) and social support scores ( $F[1, 442] = 25.93$ ,  $p < .001$ ) than males. There were no significant gender differences on any of the other variables.

The MANOVA comparing mothers with women who did not have children was also significant,  $F(10, 277) = 2.03$ ,  $p < .05$ . Using a Bonferroni-corrected alpha level of .005 for a series of subsequent ANOVAs, mothers were found to have higher vocational identity scores than women without children ( $F[1, 277] = 8.83$ ,  $p < .01$ ). No other significant differences between mothers and women without children were found.

In Figure 1, data on the distribution of socioeconomic status are presented. Socioeconomic status categories were grouped such that scores below 30 points

Table 2

**Means and Standard Deviations of Descriptive, Predictor and Outcome Variable Scores as a Function of Gender and Parity**

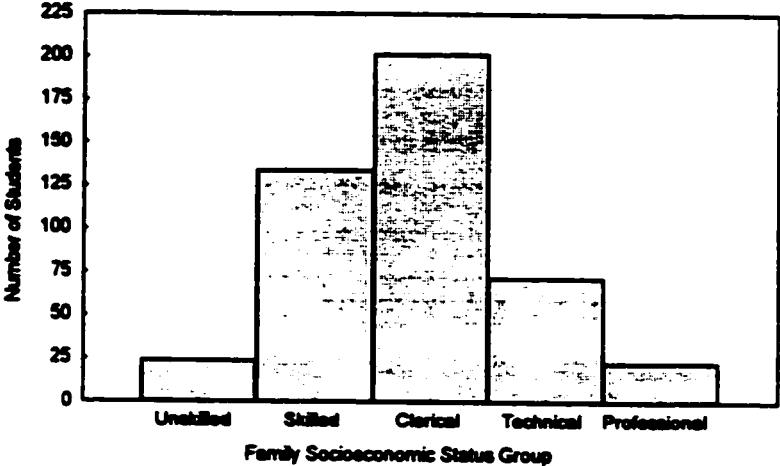
Variables	Females (n = 288)		Males (n = 165)	Total (N = 453)
	Children (n = 79)	No Children (n = 209)		
<b><u>Descriptive Variables</u></b>				
Age when originally left school	<u>M</u> 16.71 <u>SD</u> (1.53)	16.67 (1.31)	17.07 (1.31)	16.83 (1.36)
Number of Credits already earned before returning to school	<u>M</u> 42.20 <u>SD</u> (30.39)	44.76 (29.60)	45.34 (30.14)	44.53 (29.89)
Number of months out of school	<u>M</u> 19.22 <u>SD</u> (13.42)	15.32 (13.76)	16.29 (14.59)	16.36 (14.05)
<b><u>Previously Studied Predictors</u></b>				
Grade 9 Language Arts Achievement Score	<u>M</u> 55.09 <u>SD</u> (10.53)	60.13 (10.16)	56.92 (11.57)	58.11 (10.90)
Grade 9 Mathematics Achievement Score	<u>M</u> 40.14 <u>SD</u> 17.41	46.11 (17.73)	48.98 (17.50)	46.24 (17.76)
Age at return to high school	<u>M</u> 18.30 <u>SD</u> (1.34)	17.94 (1.37)	17.40 (1.36)	18.18 (1.38)
Family Socioeconomic Status	<u>M</u> 42.75 <u>SD</u> (8.35)	43.30 (9.63)	42.91 (8.65)	43.06 (9.06)
<b><u>Personal Adjustment Predictors</u></b>				
Vocational Identity Score	<u>M</u> 11.18 <u>SD</u> (4.41)	9.40 (4.63)	9.64 (4.23)	9.79 (4.48)
Stress	<u>M</u> 10.55 <u>SD</u> (5.48)	12.29 (5.56)	12.13 (6.53)	11.93 (5.94)
Coping Strategies	<u>M</u> 168.40 <u>SD</u> (14.79)	166.50 (15.73)	158.70 (17.00)	164.00 (16.51)

(table continues)

Table 2 (continued)

Variables		Females (n = 288)		Males (n = 165)	Total (N = 453)
		Children (n = 79)	No Children (n = 209)		
Perceived Social Support	<u>M</u>	26.47	25.10	21.39	23.98
	<u>SD</u>	(8.96)	(8.56)	(8.24)	(8.74)
<u>Outcome Variables</u>					
Weeks in School	<u>M</u>	17.46	16.80	15.98	16.62
	<u>SD</u>	(3.96)	(4.94)	(5.56)	(5.05)
Attendance					
Drop-in (n = 267)	<u>M</u>	28.00	24.80	27.26	25.93
	<u>SD</u>	(13.71)	(15.02)	(16.30)	(15.48)
Set courses (n = 186)	<u>M</u>	66.44	81.25	77.07	74.67
	<u>SD</u>	(20.68)	(14.17)	(20.96)	(19.75)
Number of Credits Earned	<u>M</u>	13.56	12.95	10.81	12.27
	<u>SD</u>	(7.31)	(7.73)	(6.66)	(7.35)
Average Grade in Core Courses	<u>M</u>	56.03	57.26	51.08	55.72
	<u>SD</u>	(23.00)	(23.33)	(27.68)	(25.17)

Figure 1. Socioeconomic status classifications for participants.



were labelled as 'unkilled labour', scores 30 to 39 were labelled 'skilled labour', 40-49 were labelled as 'clerical', 50-59 were labelled 'technical', and 60 and over were labelled 'professional'. Scores ranged from 23.31 to 75.87 ( $\underline{M} = 43.06$ ,  $\underline{SD} = 9.06$ ). No other studies with Canadian students returning to high school have included socioeconomic data using the classification system proposed by Blishen and colleagues (1987). These researchers did not report the mean SES classification of the Canadian population; however, median scores for males ( $\underline{Md} = 39.19$ ) and females ( $\underline{Md} = 38.15$ ) from the 1981 Canadian census data set were reported (Blishen et al., 1987). It is unclear whether these data are still representative of the Canadian population as they are from census data that is two decades old. In the current sample, median scores for males ( $\underline{Md} = 43.45$ ) and median scores for females ( $\underline{Md} = 42.05$ ) appear to be slightly higher than those from the Blishen study ( $\underline{Md} = 39.19$  and  $\underline{Md} = 38.15$  respectively). Whether these differences were significant is unclear. Further even if there was a statistically significant differences between the current sample and the Blishen sample it would be difficult to determine if such a difference was meaningful, or reflective of changes over time in the average SES of the Canadian population.

In Table 3, intercorrelations among predictor variables are presented. In general, the magnitude of the correlations was small. Variables were related in expected ways. For both males and females, being older was correlated with

Table 3

**Correlation Coefficients between Descriptive and Predictor Measures as a Function of Gender**

Variable	Age at Return to School	Gr. 9 Ach. Score	Family SES	Vocational Identity	Stress	Coping Strategies	Perceived Social Support
Age at Return to School	--	-.02	-.02	.19**	-.18**	-.08	.14*
Grade 9 Ach. Score	-.00	--	.13*	.01	-.06	-.05	-.09
Family SES	.13	.16*	--	-.00	.03	.01	.02
Vocational Identity	-.03	.22**	.07	--	-.11**	.20**	.19**
Stress	-.29***	-.09	-.16*	-.04	--	.00	-.04
Coping Strategies	.00	.01	-.06	.07	.21**	--	.48***
Perceived Social Support	-.01	.04	.01	.27***	-.02	.35***	--

Correlations above the diagonal are for females ( $n = 288$ ), and correlations below the diagonal are for males ( $N = 165$ ).

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

having a lower stress score, and SES was positively related to achievement scores. Social support and coping strategies were correlated for both males and females. There were numerous sex differences. The correlation between vocational identity scores and age was larger in magnitude for females than for males ( $z = 2.26, p < .05$ ). For males, but not for females, grade 9 achievement scores were significantly related to vocational identity ( $z = -2.17, p < .05$ ). For females, higher scores on vocational identity were associated with reports of lower stress, higher coping scores, and higher levels of perceived social support, whereas for males, higher vocational identity scores were related only to higher levels of perceived social support and were not associated significantly with either stress levels or coping scores. Stress scores decreased as family SES increased for males but not for females. Finally, coping scores were positively correlated with stress for males but not females and this relationship was significantly greater for males than for females ( $z = -2.16, p < .05$ ).

In Table 4, intercorrelations between predictor and outcome variables are presented. For both males and females, the younger students were, the more credits they earned on return to school. There were a number of gender differences in correlations. For females but not males, both whether they stayed in school for a full term and the number of weeks spent in school were associated with vocational identity and stress scores. For females but not males, being older was associated with better attendance in programs with fixed

Table 4

**Correlation Coefficients between Predictor and Outcome Measures as a Function of Gender**

Predictor Variable	Gender	Outcome Variable					
		Stay for Whole Term	Number Weeks in Program	Attendance		Number of Credits Earned	Grades in Core Courses
				(No Set Hours) <sup>a</sup>	(Set Hours) <sup>b</sup>		
Age at Return to School	F	-.07	.02	-.01	.18*	-.24***	.00
	M	-.07	.03	.02	-.12	-.17*	.06
Grade 9 Ach. Score	F	.00	.02	.07	.11	.08	.13*
	M	-.07	.09	.01	-.12	-.00	.09
Family SES	F	.01	-.04	-.07	.07	-.02	.07
	M	-.09	.09	.00	-.22	.00	.13
Vocational Identity	F	-.15**	.13*	.02	-.04	-.00	.09
	M	-.09	-.05	.06	-.05	.12	.12
Stress	F	.19**	-.12*	.00	-.08	.03	-.05
	M	.15	-.15	.12	.00	.05	-.06
Coping Strategies	F	.02	-.00	-.10	.09	-.09	.03
	M	-.04	.11	-.07	.28*	-.13	.08
Perceived Social Support	F	-.04	.05	-.06	.08	-.02	.04
	M	-.04	-.03	.00	.10	-.06	-.05

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ <sup>a</sup> $n = 161$  females, <sup>a</sup> $n = 106$  males; <sup>b</sup> $n = 127$  females, <sup>b</sup> $n = 59$  males

classroom times. For males but not females in programs with set classroom times, higher coping scores were associated with better attendance. Grades were correlated with grade 9 achievement scores for females but not for males. When z tests were conducted to test for differences between the correlations for males and for females, no significant differences were found.

Intercorrelations among outcome variables are presented in Table 5. There was great consistency in the pattern of outcome measure correlations for both females and males. Almost all outcome variables were significantly intercorrelated. One exception was that lower attendance rates in drop-in programs were correlated with leaving the program before the end of term for females only. Another gender difference was that higher attendance in set class time programs was significantly associated with earning more credits only for males. Number of weeks spent in the program was not significantly correlated with attendance in drop-in programs for males or females.

Correlations among outcome measures for men were larger than for women. For six of the pairs of correlations, those for males were significantly greater than those for females. Four of these were correlations between attendance in courses with set hour and the likelihood of remaining for the whole term ( $z = 2.61, p < .01$ ), number of weeks in the program ( $z = 3.19, p < .01$ ), number of credits earned ( $z = -3.44, p < .001$ ), and grades in core courses ( $z = -3.17, p < .01$ ). The other two were correlations between grades in core courses and the

Table 5

**Correlation Coefficients between Outcome Measures as a Function of Gender**

Variable	Stay for Whole Term	Number of Weeks in Program	Attendance (No Set Hours) <sup>a</sup>	Attendance (Set Hours) <sup>b</sup>	Number of Credits Earned	Grades in Core Courses
Stay/Leave	--	-.81***	-.17*	-.28**	-.40***	-.47***
No. Weeks in Program	-.81***	--	.11	.24**	.40***	.48***
Attendance (No Set Hrs.) <sup>a</sup>	-.13	.08	--	--	.20*	.08
Attendance (Set Hrs.) <sup>b</sup>	-.61***	.64***	--	--	.12	.31***
Credits Earned	-.45***	.40***	.22*	.43**	--	.45***
Core Course Grades	-.73***	.67***	.17	.56***	.43***	--

Correlations above the diagonal are for females ( $n = 288$ ).

Correlations below the diagonal are for males ( $n = 165$ ).

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

<sup>a</sup> $n = 161$  females,  $n = 106$  males, <sup>b</sup> $n = 127$  females,  $n = 59$  males

likelihood of staying for the whole term ( $z = 4.26, p < .001$ ), and number of weeks in the program ( $z = -2.93, p < .01$ ).

Reasons students reported for having initially left school appear in Table 6. These responses were grouped into 17 categories. If students gave more than one reason for having left school only their first response was included in analyses. Thus, participants were only allowed to endorse one of the 17 possible reasons for leaving school (ie. responses were mutually exclusive). For both males and females the most frequently given reasons for having left school were because of not liking school, wanting to work, not having been attending classes, or having been expelled.

Two sets of chi-square analyses were calculated, one comparing frequencies of males and females and a second comparing frequencies of mothers and female students without children reporting each category of reasons for leaving school. For the analysis comparing the proportions of males and females indicating each category applied to them, only 16 categories were included as males never reported having left school because of 'pregnancy/parenthood'. All 17 categories were used in comparing the frequencies of mothers and women without children endorsing each category.

In order to pinpoint which cells contributed to the difference, unadjusted standardized residuals with an absolute value greater than 1.96 ( $p < .05$ ) were used as the criterion for significant departures from expected proportions.

Table 6

**Number and Percentage of Participants Reporting Different Reasons for Initial  
Departure from School as a Function of Gender and Parity**

Reason Given for Initial Departure	Gender			Total (N = 453)
	Females (n = 288)		Males (n = 165)	
	Children (n = 79)	No Children (n = 209)		
Disliked school (bored, unmotivated)	8 (10.1)	33 (15.8)	17 (10.3)	58 (12.8)
To work	9 (11.4)	20 (9.6)	21 (12.7)	50 (11.0)
Skipped classes/didn't do schoolwork	4 (5.0)	27 (13.0)	14 (8.4)	45 (9.9)
Expelled	2 (2.5)	20 (9.6)	20 (12.1)	42 (9.2)
Pregnancy/parenthood	27 (34.2)	3 (1.4)	— —	30 (6.6)
Moved/moved out/migrated	7 (8.9)	12 (5.7)	10 (6.0)	29 (6.4)
Alcohol/drug abuse problems	— —	9 (4.3)	13 (7.9)	22 (4.9)
Family problems	4 (5.0)	12 (5.7)	5 (3.0)	21 (4.6)
Personal/emotional problems	2 (2.5)	12 (5.7)	7 (4.2)	21 (4.6)
Conflict with peers	— —	13 (6.2)	5 (3.0)	18 (4.0)

Table 6 (continued)

Reason Given for Initial Departure	Gender			
	Females (n = 288)		Males (n = 165)	Total (N = 453)
	Children (n = 79)	No Children (n = 209)		
Academic problems (low grades, attention problems)	1 (1.3)	10 (4.8)	7 (4.2)	18 (4.0)
Conflict/problem with teacher	2 (2.5)	6 (2.9)	9 (5.5)	17 (3.8)
Influence of peers	2 (2.5)	4 (1.9)	6 (3.6)	12 (2.6)
Undecided about future/needed break	3 (3.8)	3 (1.4)	6 (3.6)	12 (2.6)
Family death or illness	2 (2.5)	4 (1.9)	2 (1.2)	8 (1.7)
Health problems	--	2 (1.0)	1 (0.6)	3 (0.7)
Crime	1 (1.3)	--	--	1 (0.2)

(table continues)

There were no significant differences between the proportions of males and females who reported the possible reasons for originally having left school. No differences were found between mothers and nonmothers in reasons reported for having left school except that mothers more often reported 'pregnancy/parenting' than did nonmothers;  $\chi^2 (16, n = 288) = 83.77, p < .001$  (unadjusted standardized residual for mothers, 6.4,  $p < .05$ ; unadjusted standardized residual for nonmothers, -4.0,  $p < .05$ ). A very low proportion of both males and females reported having left school because of academic or attention difficulties (4.2% and 3.8%), although it is still possible that a large percentage of the sample had undiagnosed learning or attention problems (Dryfoos, 1990).

Students were asked to check which one or more of nine reasons described why they had returned to school. Data on the reasons students reported for returning to school appear in Table 7. Because students could check one or more factors to describe their reasons for having returned to school, separate chi square analyses were performed for each reason to compare the proportion of males versus females, and mothers versus women without children, who reported that reason for having returned to school. There were few gender differences except that a higher proportion of women than men reported returning to school to support or be an example to children,  $\chi^2 (1, N = 453) = 9.44, p < .001$  (unadjusted standardized residual for mothers, 2.7,  $p < .05$ ; unadjusted standardized residual for males, -3.5,  $p < .05$ ). In addition,

Table 7

**Number and Percentage of Participants Reporting Different Reasons for Returning to School by Gender and Parity**

Reasons Given for Returning	Gender			Total (N = 453)
	Females (n = 288)		Males (n = 165)	
	Children (n = 79)	No Children (n = 209)		
To prepare for further education	59 (74.7)	170 (81.3)	109 (66.5)	338 (74.8)
To prove something to myself	39 (49.4)	154 (73.7)	100 (61.0)	293 (64.8)
To prepare for a job	43 (54.4)	115 (55.3)	90 (54.9)	248 (55.0)
To please my parents	8 (10.1)	73 (34.9)	50 (30.5)	131 (29.0)
To stop being bored	14 (17.7)	61 (29.2)	35 (21.3)	110 (24.3)
School is better than working	8 (11.5)	25 (12.0)	22 (13.4)	55 (12.2)
To please my boyfriend/girlfriend	6 (7.6)	23 (11.1)	14 (8.5)	43 (9.5)
To support/be an example to children	37 (46.8)	— —	1 (0.5)	39 (8.6)
To please my friends	1 (1.3)	17 (8.1)	13 (7.9)	31 (6.9)

proportionately more males than females reported returning to school to prepare for more education,  $\chi^2(1, N = 453) = 9.44, p < .001$  (unadjusted standardized residual for males, 2.1,  $p < .05$ ; unadjusted standardized residual for females, -1.6,  $p > .05$ ).

More mothers than nonmothers reported being more likely to return to school to support or be an example to children,  $\chi^2(1, n = 288) = 107.57(1), p < .001$  (unadjusted standardized residual for mothers, 8.2,  $p < .05$ ; unadjusted standardized residual for nonmothers, -5.1,  $p < .05$ ).

Two other significant differences between mothers and nonmothers and mothers were found. More nonmothers than mothers reported returning to school 'to prove something to themselves',  $\chi^2(1, n = 288) = 15.34, p < .001$  (unadjusted standardized residual for mothers, 2.7,  $p < .05$ ; unadjusted standardized residual for nonmothers, -1.7,  $p > .05$ ), whereas a higher proportion of nonmothers than mothers reported returning to school 'to please parents',  $\chi^2(1, N = 453) = 17.45(1), p < .001$  (unadjusted standardized residual for mothers, 1.9,  $p < .05$ ; unadjusted standardized residual for nonmothers, 1.9,  $p > .05$ ).

### Predicting Who Dropped Out Before the End of Term Following Return to School

There was a gender difference in the proportion of students who left before their first term was over,  $\chi^2(1, N = 453) = 4.88, p < .05$ . Proportionately more

males (28.5%) than females (19.4%) left before the end of term. There was no significant difference in the proportions of women with children and women without children who left school before the end of term.

Factors predicting attrition were examined in two ways, first using a dichotomous variable at the end of the first term (stay = 0/leave = 1) and then using a continuous variable (number of weeks in program before departure). Logistic regression analyses were performed on the dichotomous variable. Analyses were conducted on the sample as a whole. If gender was a significant predictor, separate analyses for each gender were conducted to identify gender specific predictors, and to investigate the importance of having a child for prediction in females.

The results of the logistic regression analyses are presented in Table 8. Whether an individual completed an entire term after returning to school was regressed on to gender, age at return to school, family socioeconomic status, grade 9 achievement score, vocational identity, stress, coping strategies, and social support. Because gender emerged as a significant predictor of departure from school before the end of the term, separate analyses were also conducted for both females and males.

Results of the logistic regression performed on the whole sample indicated that being male, having a lower vocational identity score, and having a higher life stress score were significantly associated with leaving school before the end of the first

Table 8

**Summary of Logistic Regression Analyses Predicting Whether Students  
Remained for a Complete Term after Returning to School**

	All Participants		Females		Males	
$\chi^2$ (df, N)	24.58** (8, 453)		16.82* (8, 288)		6.83 (7.165)	
<b><u>Previously Studied Predictors</u></b>	<b><u>B</u></b>	<b><u>Odds ratio</u></b>	<b><u>B</u></b>	<b><u>Odds ratio</u></b>	<b><u>B</u></b>	<b><u>Odds ratio</u></b>
Gender	-.49*	0.61				
Age Return. to School	-.05	0.95	-.04	0.97	-.03	0.96
Family SES	-.00	1.00	.00	1.00	-.02	0.99
Grade 9 Language Arts Achievement Score	.00	1.00	-.01	1.00	-.02	0.99
<b><u>Personal Adjustment Predictors</u></b>						
Vocational Identity	-.06*	0.94	-.08*	0.93	-.05	0.97
Total Life Events	.06**	1.07	.08**	1.10	-.05	1.05
Coping	-.00	1.00	.01	1.01	-.01	0.99
Social Support	-.00	1.00	-.01	0.99	.00	1.00
Parenting status			.16	1.18		

\* $p < .05$ , \*\* $p < .01$ .

term after return to school. When the same analysis was performed only on data from females, it indicated that those most likely to leave school again before the end of the first term had significantly lower vocational identity scores and significantly higher scores on life events. A separate regression analysis to predict outcome for males did not reveal any significant predictors.

Means and standard deviations for predictor and outcome variables as a function of outcome (stayed/left) appear in Table 9.

#### Predicting How Many Weeks Students Remained in School

Students in the study attended programs in which the term was 14 to 19 weeks long. Of the 103 students who left school, the average number of weeks in school before leaving was 8.51. A series of Cox regression survival analyses were carried out using number of weeks in the program as the outcome measure. For the whole sample, gender, age at return to school, family socioeconomic status, grade 9 achievement scores, vocational identity level, life stress, coping strategies, and social support were entered as predictor variables. This Cox regression survival analysis was significant,  $\chi^2(8, N = 453) = 23.10, p < .01$ ; students with lower vocational identity scores ( $B = -.05, p < .05$ ) and higher stressful life event scores ( $B = .05, p < .01$ ) were more likely to leave school sooner. When separate regression analyses were carried out for females and males, the analysis did not reach significance for males. For females the analysis was significant,  $\chi^2(8, n = 288) = 16.94, p < .05$ . Higher vocational

Table 9

**Means and Standard Deviations of Descriptive and Predictor Variables Scores as a Function of Outcome (Left/Stayed)**

Variables	Outcome			
	Left ( <u>n</u> = 103)	Stayed ( <u>N</u> = 350)	Total ( <u>N</u> = 453)	
<b><u>Descriptive Variables</u></b>				
Age when originally left school	<u>M</u> <u>SD</u>	16.96 (1.28)	16.76 (1.43)	16.83 (1.36)
Number of Credits already earned before returning to school	<u>M</u> <u>SD</u>	38.97 (29.15)	46.16 (29.95)	44.53 (29.89)
Number of months out of school	<u>M</u> <u>SD</u>	13.06 (12.01)	17.24 (12.01)	16.36 (14.05)
<b><u>Previously Studied Predictors</u></b>				
Age at return to high school	<u>M</u> <u>SD</u>	18.03 (1.34)	18.22 (1.38)	18.18 (1.38)
Family Socioeconomic Status	<u>M</u> <u>SD</u>	42.64 (9.33)	43.19 (8.98)	43.06 (9.06)
<b><u>Personal Adjustment Predictors</u></b>				
Vocational Identity Score	<u>M</u> <u>SD</u>	8.74 (4.52)	10.11 (4.43)	9.79 (4.48)
Stress	<u>M</u> <u>SD</u>	13.87 (6.42)	11.36 (5.68)	11.93 (5.94)
Coping Strategies	<u>M</u> <u>SD</u>	163.05 (15.52)	164.26 (16.81)	164.00 (16.51)
Perceived Social Support	<u>M</u> <u>SD</u>	23.01 (8.87)	24.27 (8.69)	23.98 (8.74)

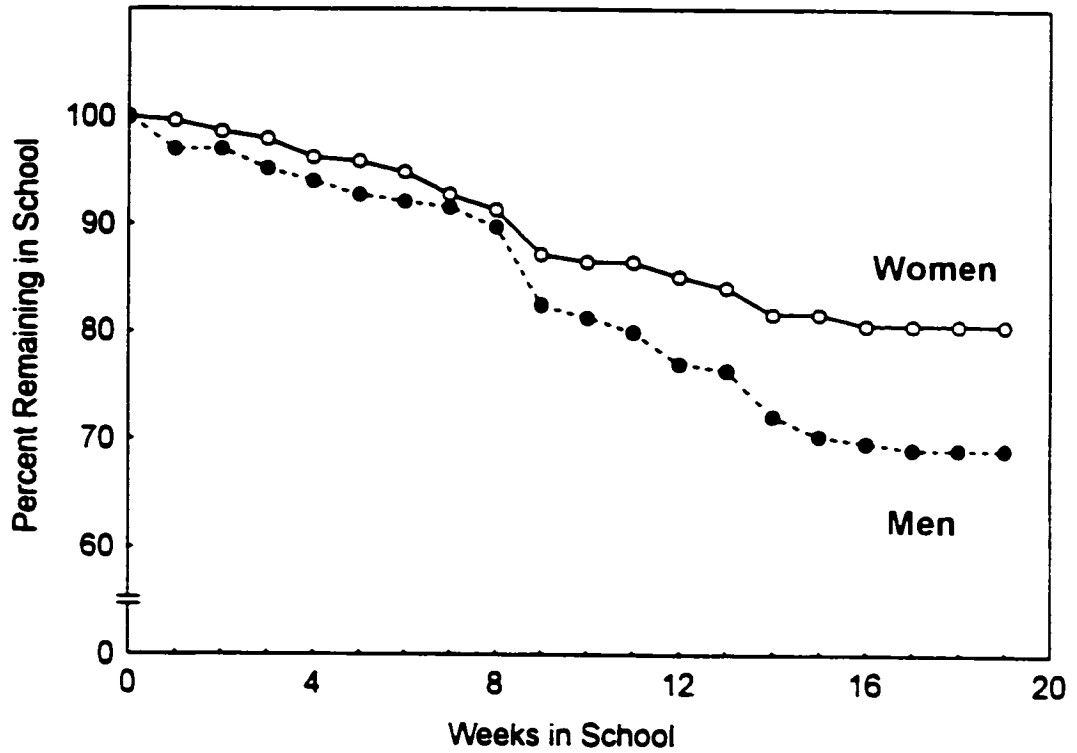
identity scores ( $B = -.07, p < .05$ ) and a lower number of total life events ( $B = .07, p < .01$ ) emerged as significant predictors of weeks spent in school for females. A graph of the survival function showing the percentage of students who remained in school as a function of number of weeks spent in school and gender is presented in Figure 2.

### Predicting Attendance

Because attendance has been shown to be strongly associated with academic success and remaining in school, it was examined as an outcome measure in regression analyses. Separate attendance analyses were conducted for students in alternative schools ( $n = 267$ ) and for students in schools which required scheduled classroom attendance ( $n = 186$ ) because of differences in calculations of attendance rates. There was a significant age difference between students in the alternative schools with no fixed hours for classes ( $M = 17.6$  years) and students attending the school for mothers, the fourth year high school and college programs with set hours for classes ( $M = 19.0$  years),  $t(451) = -11.53, p < .001$ .

Attendance for students in the alternative high school programs was calculated as a percentage of hours per week, with an upper limit of 30 hours per week. The average attendance rate was 26.20% ( $SD = 16.46$ ). No significant predictors for students in programs without set hours were found

**Figure 2.** Percentage of participants who remained in school as a function of number of weeks in program and gender.



overall or for either females or males.

For students in programs with set hours, the average percentage of classes attended was 74.56% (SD = 20.10). Significant predictors for students in programs with set classroom hours were not found for the samples as a whole or for males. For females, being a parent was predictive of a lower rate of attendance ( $F = 5.21 [8, 118], p < .001; B = -16.51, p = < .001$ ).

#### Predicting Number of Credits Earned after Returning to School

Number of credits earned after returning to school was also used as an outcome measure. A regression analysis performed on the whole sample was significant,  $F (8, 444) = 5.21, p < .001$ . More credits were earned by females than by males ( $B = -2.19, p < .01, \beta = -.14$ ), by younger students ( $B = -1.19, p < .05, \beta = -.22$ ), and by students with lower coping scores ( $B = -.05, p < .05, \beta = -.12$ ). A separate analysis performed on data for females only was significant,  $F (8, 279) = 3.02, p < .01$ . Being younger was a predictor of earning more credits for females ( $B = -1.44, p < .001, \beta = -.26$ ). For males, the analysis did not reach significance.

#### Predicting the Average Grades of Core Credits Earned

Because grades in optional courses may not reflect academic achievement levels best, grades in core courses were also examined as an outcome measure of achievement. For the whole sample the regression was significant,  $F (9, 442) = 2.98, p < .01$ , and being female ( $B = -.68, p < .01$ ) and having a higher grade

• nine achievement score ( $B = .29$ ,  $p < .05$ ) were significant predictors of receiving higher average grades in core courses. Analyses carried out separately for females and males were not significant.

#### Interactions between Predictors

Interaction terms reflecting the interactions of different predictors were not evaluated in multiple regression analyses due to the fact that large numbers of potential interaction terms would have limited the power of these analyses. In addition, previous research had not identified any specific interaction effects of any importance. However, interaction effects of significant predictors (for example between vocational identity and stress on likelihood of leaving school) were examined. No significant interactions were found.

#### Discussion

Although much psychological and educational research to date has been focused on factors associated with departure from high school, there is limited research on predictors of success of students returning to schools and colleges to complete high school. Research on this group is important because approximately 25% of the general population leave high school before completing their diplomas, and nearly half of these individuals attempt to complete their high school education before age 24.

Prior research has told us very little about how factors predicting initial departure from school are related to repeated departure from school.

Furthermore, the impact of developmental factors on success in returning to school in this late adolescent and early adult group are not well understood, and little is known about other indices of academic success in students returning to high school other than whether or not students drop out again.

#### Overall Findings of the Present Study

Contrary to results from previous research, age, SES and achievement level were not found to reliably predict any of the academic outcomes, except that grade 9 achievement scores were predictive of core course grades. However, the failure in the present study to demonstrate the importance of these variables does not seem to have been a function of power, since power analyses suggested that power was more than adequate for the detection of medium effect sizes. Hypotheses which were supported were that gender (being male), having lower vocational identity level, and higher stress scores were predictive of departure from school before the end of the first term. Having lower vocational identity level and higher stress scores were also predictive of leaving school earlier.

The only significant predictors of obtaining higher core course grades were being female and having a higher grade 9 achievement level. The strongest predictors of earning a greater total number of credits were being female, being younger, and having a lower coping score. For females, being younger was predictive of obtaining more credits. Higher average grades in core curriculum

courses were predicted by being female and by having higher achievement scores.

Although the outcome variables were found to be highly intercorrelated, remaining in school for a complete term and the number of weeks spent in school may be the most important outcomes examined here because they may be more crucial determinants of which individuals will get their high school diploma. Attendance, number of credits earned, and grades may be of secondary importance. In addition to being the most important variables repeated departure from school and the number of weeks in school before leaving appear to be more robust psychometrically and more informative as they were found to both be related to vocational identity and life events factors for females which are developmentally influenced variables.

Findings from the current study are somewhat different from those of other researchers who reported that ability and socioeconomic status were related to likelihood of repeated departure from school (Goldman & Bradley, 1996b; Kaufman, 1990). Neither of these predictors were found to be predictive of success in returning to school in the present study, except that achievement predicted core course grades. The failure to find significant effects of SES and achievement for success in returning to high school may be due to the fact that students who return to school are relatively homogenous in terms of SES and achievement levels than the population as a whole because these factors are

associated with initial departure from school. However, the fact that grade 9 achievement scores were available for only about half of the sample in the present study probably reduced the power of this variable dramatically.

### Achievement

Students for whom grade 9 achievement data were not available may have left school before the end of grade 9, and may represent students who were most at risk. Alternatively, it is possible that the range of achievement scores was not a significant predictor with the more narrow range of students who had returned to school. Students who dropped out for the first time could be differentiated from their peers who stayed in school by lower achievement scores, but may lose their distinctiveness when compared only to other students returning to school.

### Age

Age was not found to be a significant predictor of any outcome measure. These findings were unexpected, given that being older has been reported to be predictive of being more likely to remain in school (Goldman & Bradley, 1996b). While age by itself was not predictive of outcomes, it was related to vocational identity and life events, for females, and these factors in turn related to completion of a full term and the number of weeks spent in school. Vocational identity and life events thus appear to have special developmental significance for females as a determinant of success in returning to school.

Age effects may have been obscured by another factor in the present research. In the current sample, participants ranged in age from the mid-teenage years to age 21 and returned to a variety of educational settings. There is a possibility that, in the sample studied, students at different ages were able to return to schools which were well suited to their developmental levels and educational needs, and this may have resulted in younger students being as likely to stay in school as older students. Another possibility is that, by not studying individuals over the age of 21, the age range was truncated enough that the influence of age was reduced.

#### Socioeconomic Status

Socioeconomic status was not found to predict any outcome measures. This finding was also contrary to findings from other studies (Goldman & Bradley, 1996b; Kaufman, 1990). The amount of variance accounted for by SES may have been reduced by the inclusion of measures of vocational identity and life events in the current study, as SES has been found in previous research to be related to both vocational goals and stress (Kaufman, 1990). Another possibility is that the socioeconomic status of individuals in the current study may have been relatively homogenous.

#### Gender Differences

A number of gender differences were found in the current research. When descriptive data gathered at the beginning of the study were examined, females

were found to be younger than males both when they originally left school and when they returned to school. Females also had higher coping and social support scores than males. However, although females were found to have higher coping and social support scores than males overall, these two variables were not found to be predictive of most outcome measures for either males or females. Lower coping scores were found to be predictive of earning more credits, but this finding was contrary to expectations and may represent an anomalous finding. With regard to outcome measures, males were found to be less likely to remain in school for a full term, although there were no significant gender differences in the average number of weeks males and females remained in school before leaving. Women but not men who left school before the first term was up had lower vocational identity scores than those who remained. However, vocational identity was found to be a significant predictor of earning more credits for males but not for females. Finally, a lower total number of positive and negative life events were found to be predictive of remaining in school for the whole term for females but not for males.

Vocational identity. For females, vocational identity was a significant predictor of staying in school for a full term and staying in school longer. The gender difference in the relationship between vocational identity and a successful return to high school indicates that women who do not have an established career direction are more likely to leave school again, whereas the degree to

which males have an established career direction has no bearing on their likelihood of remaining in school. Females may have a vocational identity which is more strongly related to their behaviour than males. An additional possibility is that females may also be more realistic about what is required in planning a career they desire, and more realistic about what job is appropriate for them.

The finding that females were less likely to leave school again is consistent with the previous findings of a number of researchers (Goldman & Bradley, 1996b; Karp, 1988). The fact that females with lower levels of vocational identity were more likely to leave school is consistent with the findings of Kaufman (1990) and Goldman and Bradley (1996b) insofar as they reported that lower vocational aspirations were predictive of repeated departure from high school. Nevertheless, although vocational identity and vocational aspirations are related, they are not the same thing. Vocational aspirations involve the level of education and training an individual may ideally aim at achieving, whereas vocational identity reflects the degree to which an individual has decided which career he or she wishes to pursue. Although a comparison of vocational aspirations and vocational identity as predictors of outcomes in students returning to high school was not conducted in this study, vocational identity may be a more important predictor because it is a more general identity-based variable whereas vocational aspirations are more strongly linked with socioeconomic status and educational level.

**Life events.** Females but not males were more likely to leave school before the end of term and to leave earlier if they had experienced a greater number of stressful life events, both positive and negative, in the year prior to testing. There is a possibility that there are gender differences in the age at which certain positive and negative life experiences occur for and have an impact on males and females. The fact that females in the current study were more likely to leave school again if they had experienced stressful life events was consistent, to some extent, with the more limited finding of Goldman and Bradley (1996b) that having unstable living arrangements was associated with repeated departure from school.

**Vocational identity and life events.** Life events and vocational identity were negatively correlated for females ( $r = -.12$ ). Although the magnitude of the correlation was not large, there is a possibility that one factor may influence the other. For example, experiencing more stressful life events may interfere with vocational development. Alternatively, being 'planful' in the sense of Quinton, Pickles, Maughan, and Rutter (1993) may result in both stronger vocational identity and lower experienced stress.

**Coping and social support.** Women in the present study returned to high school at younger ages, had more available coping behaviours and social supports, and were more likely to remain in school than men. Although higher scores on coping behaviours and social support were not found here to be

predictive of remaining in school, the fact that females had higher initial scores on these two variables and were more likely to stay in school than males suggests that coping and social support may still be protective factors for success in returning to school, although the mechanism through which they are protective was not clarified in this study. Females obtained higher grades and numbers of credits than males. These findings regarding gender are consistent with findings from previous research which suggests that overall females have better academic outcomes than males (Goldman & Bradley, 1996b; Kaufman, 1990).

Parenting Status. A variable which differentiated between males and females, and among females, was parenting status. A total of 79 (27.43%) of women in the sample had one or more children while only 2 (0.01%) of males in the sample had one or more children. Clearly, being a parent is a more important factor in the lives of females returning to school than males returning to school.

Mothers had higher vocational identity scores than nonmothers, although being a mother was not, in itself, a predictor of being more likely to remain in school. Being a mother predicted earning more credits than being female without children, and, in schools and college with courses with scheduled classes, predicted lower attendance. This suggests that mothers who have returned to school are more likely to have clear vocational goals and are more

motivated to complete their education. Although becoming a mother may be related to leaving high school initially, being a mother and returning to school does not necessarily place a woman at risk for not remaining in school despite the practical problems it may create for attending classes regularly.

### Theoretical Implications

Findings from the present study point to the importance of developmental factors other than age in and of itself for the success of students returning to high school. Apparently, for females, it is more important to have a set career path and few stressful life events in the recent past to be able to remain in school. Although these variables were not found to be significant for males, it could be important to examine how vocational identity and stressful life events are related to initial departure from school in order more fully complete the picture of how vocational identity and life stress affect how adolescents deal with the developmental task of completing high school education.

In the current study vocational identity was operationalized using a quantitative questionnaire constructed by Holland and colleagues (1980), rather than a categorical coding system such as that proposed by Marcia (1966). Although the vocational identity measure which was used does not indicate the stage of identity development an individual is in, according to Erikson's model, a qualitative approach with the current sample would have require

nonparametric analyses which are less powerful, and would not have allowed to include vocational identity as a quantitative measure in regression analyses.

Vocational identity and life events appear to be less relevant for males than for females returning to school. However, vocational identity of males may be related to success in school at a later age than is the case for females. It may be important to understand the reasons why some males with well-established vocational identities and low levels of life events decide to leave school and whether the reasons are the same as those of males with lower vocational identity scores and high life event scores. No evidence was found for the importance of coping and social support as determinants of success when returning to school. These factors appear to be less important for both males and females, although the current findings require replication. Another possibility is that the measures of social support and coping used may not have been specific enough to measure factors associated with school success.

A typological approach describing different types of students repeatedly leaving high school could be conducted in future research in this area in a way similar to the work by Janosz and colleagues (1997). These workers developed typologies of male students who initially left high school. Conducting a typological study of students returning to high school may be more difficult, however, and may provide less information than studying first-time dropouts in

such a way because the former group is a more homogenous 'successful' subgroup than the latter.

### **Clinical Implications of the Research**

Current findings indicate that measuring vocational identity is an important factor in identifying at-risk students returning to school. Providing students returning to school with career information and work experience programs may be helpful in improving their chances of finishing high school. Other additional approaches to increasing student retention with returning students could include life skills courses and assessment of the academic strengths and weaknesses of students. The findings of the current study could be used as support for providing counseling support for female students to reduce the effects of life stress and help the individual establish a vocational identity. Some information about the needs of women with children also emerged. Mothers returning to school appear to attend more frequently when they are free to attend on a drop-in basis rather than having to attend at set classroom times. Little was learned in the current research about what predicts success for males returning to school.

### **Strengths and Limitations of the Present Study**

The school and college programs studied in this research project are likely fairly representative of other high school completion programs across North America. Findings from the current study may be more specifically applicable to college and alternative high school programs as these were the most frequently

sampled programs. Including more regular school programs would have allowed for a better comparison of this type of program with other programs in different educational settings. As well, this would have allowed for a clearer comparison between results of the current study and previous findings from studies based primarily on students in regular school programs.

The current research was conducted with students over a fairly broad age range (ages 14 to 21 years of age) in a variety of educational settings (alternative high schools, school for mothers, 4<sup>th</sup> year high school, and colleges) in order to provide a diverse perspective on students returning to high school. In terms of generalizability and external validity, one strength of the current study was that it included a broader sample of students, and was less focused on students returning to traditional schools than previous research. Another strength of the current study, when compared to most research on students returning to high school, was that it involved an investigation of psychological functioning in much greater detail using psychometrically powerful measures.

One possible limitation of the study was that students were only followed over the course of their first term back in school. In some other studies, students were followed over much longer period. Another limitation was that the current sample size was smaller than that of some other studies of students returning to high school.

In the present study multiple outcomes of success in returning to school were examined; both dichotomous (leaving/staying) and continuous (number of weeks in program before leaving, number of credits completed, and grades) variables were included. This range of outcome measures allowed for a richer picture of repeat school leavers.

In most alternative schools, participants were recruited in the classroom. However, there was probably a higher rate of participation using this procedure than with the procedure developed by other programs. When data collection was done outside of classroom time with older students in the fourth year high school, the school for mothers, and colleges, the rate of participation was probably lower.

There were some limitations in the representativeness of the sample because of the fact that not all schoolboards approved the study. Alternative schools in one large schoolboard participated, but alternative schools in another schoolboard did not. Moreover, staff at only one regular high school elected to participate. The sample would probably have included more younger students if alternative schools in that second schoolboard had participated. The current sample thus included students from a diversity of schools but may not have been representative of all students returning to school. Nevertheless, attempts were made to avoid attrition.

All participants were given a \$5 gift certificate to thank them for their participation in order to retain in the sample as many students as possible. This appeared to be a highly effective way of avoiding a selection bias.

The study may have been limited in its representativeness because it was conducted in one mid-sized western Canadian metropolitan area. This area has a strong economy based on the provincial government, large oil-field service sector, and small businesses. The fact that the economy was so strong may have increased the likelihood that students would leave high school because of the greater probability of finding employment. Despite the unique aspects of this metropolitan area, the current sample of adolescent and young adult students was probably quite representative of North American students returning to high school.

In the current study, coping or social support were not found to be significant factors in whether or not students remain in school. These psychological constructs might have had more predictive power if they had been more specifically adapted to school-related situations and stressors. Fanshawe and Burnett (1991), for example, measure school-related stressors and coping mechanisms. An limitation of the coping measure used was the absence of good validity data. In the present study, avoidant coping was positively correlated with problem-focused and emotion-focused (problem-focused and avoidant coping,  $r = .38$ ; and emotion-focused coping and avoidant coping,  $r = .34$ ).

These findings were unexpected as it was assumed that avoidant coping which is described as a less effective coping strategy would be negatively correlated with problem-focused and emotion-focused coping.

#### Suggestions for Future Research

A number of suggestions for future research can be made based on the current research findings. Most importantly, examining life events and vocational identity in high school students before they drop out initially will be helpful as a means of replicating the pattern found in the present study. Assessing subsamples of both males and females who are at high risk to leave school would extend the work of Cairns and Cairns (1994) and Janosz et al. (2000), who were the first to derive profiles of students at varying degrees of risk for departure from school.

In future research it might also be important to explore why students leave school, not just whether they leave school or not. The steps leading up to the decision to leave school could be studied by having measures filled out not just at one point in time, but at regular intervals. A few studies (eg., Gilbert et al., 1993) have involved following students who left school over a period of time. Sometimes school staff had some idea of why students stopped attending but it was often anecdotal and based on information gained before the student stopped attending. Collecting such information might have yielded a better understanding of the different pathways students follow after they leave high

school. Some students may leave because of stressful life events, while others may leave because they are moving or starting a job. However, even if this information had been collected systematically, students may not provide veridical or complete information about their reasons for leaving school. There may be distortions in what students report about why they leave school or they may lack insight into their reasons for leaving school.

Different schools in the study had different resources for assisting students who were at risk. In most college settings, for example, students with learning disabilities were referred for assessment and remedial help. Social services, access to nurses, and daycare were available in the school for mothers. Such academic, health, and social resources were not available in the alternative high schools. Such resources may be an important determinant of who remains in school, and could be studied in more detail in future research.

Teacher ratings of student motivation at different points in time during the return to school could provide a richer source of data on academic performance and behaviour. As well, other measures such as measures of behavioural difficulties might have added to our ability to predict those males who were going to drop out for a second time.

In summary, the current study was helpful in providing more information about factors associated with departure from school in students returning to school, particularly with regard to gender differences in the reasons for repeated

departure from school. Females were more likely than males to remain in school, particularly if they had higher vocational identity scores and lower life event scores. Females were also more likely to stay in school longer if they had higher vocational identity scores and lower life events scores. These findings have implications for assessment and intervention with females returning to high school.

### Conclusions

Leaving and returning to high school, in addition to completing school without ever dropping out, are now fairly common pathways which deserve attention in and of themselves. We need more powerful theories of what determines whether students succeed in returning to school which will allow for the provision of appropriate interventions. The accumulating research evidence on students returning to school indicates that these individuals are not identical to the population of individuals who leave school for the first time. The current results suggest the importance of examining developmental factors in the lives of these individuals.

### References

Abramowitz, R., Petersen, A., & Schulenber, J. (1984). Changes in self-image during early adolescence. In D. Offer, E. Ostrov, & K. Howard (Eds.), Patterns of adolescent self-image (pp. 19-28). San Francisco: Jossey-Bass.

Adams, G., Fitch, J., & Shay, S. A. (1979). Toward the development of an objective measure of ego-identity status. Journal of Youth and Adolescence, 8, 223-238.

Adams, G. R., Ryan, J. H., Hoffman, J. J., Dobson, W. R., & Nielsen, E. C. (1985). Ego identity status, conformity behavior, and personality in late adolescence. Journal of Personality and Social Psychology, 47, 1091-1104.

Aldrich, J. H., & Nelson, F. D. (1984). Linear probability, logit, and probit models. Beverly Hills, CA: Sage.

Anderson, J. F. (1979). Adjustment of adolescents to chronic disability. Rehabilitation Psychology, 46, 177-185.

Anisef, P. (1994). Learning and sociological profiles of Canadian high school students: An overview of 15 to 18 year olds and educational policy implications for dropouts, exceptional students, employed students, immigrant students and native youth. Lewiston, NY: Edwin Mellen.

Astone, N. M., & McLanahan, S. S. (1991). Family structure, parental practices and high school completion. American Sociological Review, 56, 309-320.

Bachman, J. G., Green, S., & Wirtanen, I. D. (1967). Dropping out: Problem or symptom? Volume III in Youth in Transition. Ann Arbor, MI: Braun-Brumfeld.

Baron, R. M., & Kenny, D. A. (1966). The moderator-mediator variable distinction in social-psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Barrera, M. (1981). Social support in the adjustment of pregnant adolescents: Assessment issues. In B. H. Gottlieb (Ed.), Social cognitive development: Frontiers and possible futures (pp. 69-96). Beverly Hills, CA: Sage.

Barrington, B. L., & Hendricks, B. (1989). Differentiating characteristics of high school graduates, dropouts and nongraduates. Journal of Educational Research, 82, 309-319.

Blishen, B. R., Carroll, W. K., & Moore, C. (1987). The 1981 socio-economic index for occupations in Canada. Canadian Review of Sociology and Anthropology, 24, 465-488.

Blyth, D. A., Simmons, R. G., & Carlton-Ford, S. (1983). The adjustments of early adolescents to school transitions. Journal of Early Adolescence, 3, 105-120.

Boldero, J., & Fallon, B. (1995). Adolescent help-seeking: What do they get help for and from whom? Journal of Adolescence, 18, 193-209.

Borus, M. E., & Carpenter, S. A. (1983). A note on the return of dropouts to high school. Youth & Society, 14, 501-507.

Brooks-Gunn, J., Guang, G., & Furtenberg, F. F. (1993). Who drops out of and who continues behind high school? A 20-year follow-up of black urban youth. Journal of Research on Adolescence, 3, 271-294.

Bryk, A. S., & Thum, Y. M. (1989). The effects of high school organization on dropping out: An exploratory investigation. American Educational Research Journal, 26, 353-383.

Cairns, R. B., & Cairns, B. D. (1994). Lifelines and risks: Pathways of youth in our time. Cambridge, UK: Cambridge University Press.

Cairns, R., Cairns, B., & Neckerman, H. J. (1989). Early school dropout: Configurations and determinants. Child Development, 60, 1437-1452.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. Journal of Personality and Social Psychology, 56, 267-283.

Caspi, A., Elder, G., H., Jr., & Herbener, E. S. (1990). Childhood personality and the prediction of life-course patterns. In L. N. Robins & M. Rutter (Eds.), Straight and devious pathways from childhood to adulthood (pp. 13-35). New York: Cambridge University Press.

Cauce, A., Felner, R., & Primavera, J. (1982). Social support in high-risk adolescents: Structural components and adaptive impact. American Journal of Community Psychology, 10, 417-428.

Chuang, H.-L. (1997). High school youths' dropout and re-enrollment behavior. Economics of Education Review, 16, 171-186.

Cohen, J. (1992). A power primer. Psychological Bulletin, 112, 155-159.

Compas, B. E. (1987). Coping with stress during childhood and adolescence. Psychological Bulletin, 101, 393-403.

Compas, B. E., Wagner, B. M., Slavin, L. A., Vannatta, K. (1986). A prospective study of life events, social and psychological symptomatology during the transition from high school to college. American Journal of Community Psychology, 14, 241-257.

Copeland, E. P., & Hess, R. S. (1995). Differences in young adolescents' coping strategies based on gender and ethnicity. Journal of Early Adolescence, 15, 203-219.

Dohrenwend, B. S., Dohrenwend, B. P., Dodson., M., & ShROUT, P. E. (1984). Symptoms, hassles, social supports and life events: The problem of confounded measures. Journal of Abnormal Psychology, 93, 222-230.

Dryfoos, J. G. (1990). Adolescents at risk: Prevalence and prevention. New York: Oxford University Press.

Ebata, A. T., & Moos, T. (1991). Coping and adjustment in distressed and healthy adolescents. Journal of Applied Developmental Psychology, 12, 33-54.

Ekstrom, R. B., Goertz, M. E., Pollack, J. M., & Rock, D. A. (1987). Who drops out of high school and why? Findings from a national study. Teachers College Record, 87, 356-373.

Ellenbogen, S., & Chamberland, C. (1997). The peer relations of dropouts: A comparative study of at-risk and not at-risk youth. Journal of Adolescence, 20, 355-367.

Elliot, D. S. (1966). Delinquency, school attendance and dropout. Social Problems, 13, 307-314.

Ensminger, M. E., Lamkin, R. P., & Jacobson, N. (1996). School leaving: A longitudinal perspective including neighborhood effects. Child Development, 67, 2400-2416.

Ensminger, M. E., & Slusarcick, A. L. (1992). Paths to high school graduation or dropout: A longitudinal study of a first-grade cohort. Sociology of Education, 65, 95-113.

Erikson, E. (1968). Identity: Youth and crisis. New York: Norton.

Employment and Immigration Canada. (1990). A national stay-in-school initiative. Ottawa, ON: Minister of Supply and Services.

Fanshawe, J. P., & Burnett, P. C. (1991). Assessing school-related stressors and coping mechanisms in adolescents. British Journal of Educational Psychology, 61, 92-98.

Farrell, E. (1990). Hanging in and dropping out: Voices of at-risk high school students. New York: Teachers College Press.

Fenzel, L. M., & Blyth, D. A. (1986). Individual adjustment to school school transitions: An exploration of the role of supportive peer relations. Journal of Early Adolescence, 6, 315-329.

Figueira-McDonough, J. (1993). Residence, dropping out, and delinquency rates. Deviant Behaviour, 14, 109-132.

Finn, J. D. (1989). Withdrawing from school. Review of Educational Research, 59, 117-142.

Franklin, C. (1992). Social support and psychoeducational interventions with middle class dropout youth. Child and Adolescent Social Work Journal, 9, 131-153.

Frydenberg, E., & Lewis, R. (1996). The adolescent coping scale: Multiple forms and applications of a self report inventory in a counselling and research context. European Journal of Psychological Assessment, 12, 216-227.

Gehlert, K., Timberlake, D., & Wagner, B. (1992). The relationship between vocational identity and academic achievement. Journal of College Student Development, 33, 143-148.

Gilbert, S., Barr, L., Clark, W., Blue, M., & Sunter, D. (1993). Leaving school: Results from a national survey comparing school leavers and high school

graduates 18 to 20 years of age. Ottawa: Employment and Immigration Canada, Government of Canada.

Goldman J. D. G., & Bradley, G. L. (1996a). A profile of Australian high school dropouts who return to school. Studies in the Education of Adults, 28, 185-210.

Goldman J. D. G., & Bradley, G. L. (1996b). Young adults who re-enter Australian high schools and drop out again. International Journal of Lifelong Education, 15, 405-417.

Goldman J. D. G., & Bradley, G. L. (1997). The educational experience of Australian high school dropouts who return to school. International Journal of Lifelong Education, 16, 18-38.

Grotevant, H. D., & Thorbecke, W. T. (1982). Sex differences in styles of occupational identity formation in late adolescence. Developmental Psychology, 18, 396-405.

Hawkins, D., & Lishner, D. M. Schooling and delinquency. In E. H. Johnson (Ed.) Handbook on crime and delinquency prevention (pp. 179-221). Greenwood Publishing: Westport, CT.

Hirsch, B. J., & Reisch, T. M. (1985). Social networks and developmental psychopathology: A comparison of adolescent children of a depressed, arthritic, or normal parent. Journal of Abnormal Psychology, 94, 272-281.

Holland, J. F., Daiger, D. C., & Power, P. G. (1980). My Vocational Situation: Description of an experimental diagnostic form for selection of vocational assistance. Palo Alto, CA: Consulting Psychologists Press

Holland, J. F., Gottfredson, D. C., & Power, P. G. (1980). Some diagnostic scales for research in decision making and personality: Identity, information, and barriers. Journal of Personality and Social Psychology, 39, 1191-1200.

Holland, J. L., & Holland, J. E. (1977). Vocational indecision: More evidence and speculation. Journal of Counseling Psychology, 24, 404-414.

Howell, F. M., & Frese, W. (1982). Early transition into adult roles: Some antecedents and outcomes. American Educational Research Journal, 19, 51-73.

Human Resources Development Canada and Statistics Canada. (1996). After high school: The first years. The first report of the school leavers follow-up survey -- 1995. (HRDC Publication No LM-419-09-96). Ottawa, ON Author

Hymel, S., Comfort, C., Schonert-Reichl, K., & McDougall, P. (1996). Academic failure and school dropout: The influence of peers. In J. Juvonen & K. R. Wentzel (Eds.), Social motivation: Understanding children's school adjustment (pp. 313-345). New York: Cambridge University Press.

Janosz, M., LeBlanc, M. (1996). Pour une vision intégrative des facteurs reliés à l'abandon scolaire. Revue Canadienne de Psycho-éducation, 25, 61-88.

Janosz, M., LeBlanc, M., Boulerice, B., & Tremblay, R. E. (1997).

Disentangling the weight of school dropout predictors: A test on two longitudinal samples. Journal of Youth and Adolescence, *26*, 733-762.

Janosz, M., LeBlanc, M., Boulerice, B., & Tremblay, R. E. (2000). Predicting different types of school dropouts: A typological approach with two longitudinal samples. Journal of Educational Psychology, *92*, 171-190.

Judd, C. M., & Kenny, D. A. (1981). Process analysis: Estimating mediation in treatment evaluations. Evaluation Review, *5*, 601-619.

Karp, E. (1988). The drop-out phenomenon in Ontario secondary schools: A report to the Ontario study of the relevance of education and the issue of dropouts: Vol. 6. Student retention and transition series (Ontario Ministry of Ed. Rep. No. C88-099635-8). Toronto, ON: Ontario Institute of Education.

Kasen, S., Cohen, P., & Brook, J. S. (1998). Adolescent school experiences and dropout, adolescent pregnancy, and young adult deviant behavior. Journal of Adolescent Research, *13*, 49-72.

Kaufman, P. D. (1990). High school dropouts who return to school (Doctoral dissertation, Claremont Graduate School, 1989). Dissertations Abstracts International, *50*, 8B.

Kessler, R. C., Foster, C. L., Saunders, W. B., & Stang, P. E. (1996). Social consequences of psychiatric disorders, I: Educational attainment. American Journal of Psychiatry, *152*, 1026-1032.

Kindermann, T. A. (1993). Natural peer groups as contexts for individual development: The case of children's motivation in school. Developmental Psychology, 29, 970-977.

Kohn, J. P., & Frazer, G. H. (1986). An academic stress scale: Identification and rated importance of academic stressors. Psychological Reports, 59, 415-426.

Kohn, M. (1977). Class and conformity (2nd Ed.). Chicago: University of Chicago Press.

Kolstad, A., & Kaufman, P. (1989). Dropouts who complete high school with a diploma or GED. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA, 27-31 March.

Kolstad, A. J., & Owings, J. A. (1986). High school dropouts who change their mind about school. Office of Educational Research and Improvement, US Department of Education, EDRS Document ED 275800.

Kortering, L. J., & Blackorby, J. (1992). High school dropouts and students identified with behavioral disorders. Behavioral Disorders, 18, 24-32.

Kronick, R. R., & Hargis, C. H. (1990). Dropouts: Who drops out and why-and the recommended action. Springfield, IL: Thomas.

Ladd, G. W., & Price, J. M. (1987). Predicting children's social and school adjustment following the transition from preschool to kindergarten. Child Development, 58, 1168-1189.

Larter, S., & Cheng, M. (1978). Study of returning students. Part III: Characteristics, opinions and experiences of returnees and non-returnees. Document #150: Research Services of the Toronto Board of Education. Toronto, ON: The Board of Education for the City of Toronto.

Lawton, S. B., Leithwood, K. A., Batcher, E., Donaldson, E. L., & Stewart, R. (1988). Student retention and transition in Ontario high schools: Policies, practices, and prospects: Vol. 4. Student retention and transition series. (Ontario Ministry of Ed. Rep. No. C89-099601-6). Toronto, ON: Ontario Institute of Education.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal and coping. New York: Springer Publishing.

LeBlanc, M., Janosz, M., & Langelier-Biron, L. Abandon scolaire et prevention specifique: Antecedents sociaux et personnels. Apprentissage et Socialisation, 16, 43-64.

Leong, T. L., & Morris, J. Assessing the construct validity of Holland, Daiger, and Power's Measure of Vocational Identity. Measurement and Evaluation in Counseling and Development, 22, 117-125.

Lucas, E. B., Gysbers, N. C., Buescher, K. L., & Heppner, P. P. (1988). My Vocational Situation: Normative, psychometric, and comparative data. Measurement and Evaluation in Counseling and Development, 20, 162-170.

Mahoney, J. L., & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? Developmental Psychology, 33, 241-253.

Marcia, J. E. (1966). Development and validation of ego identity status. Journal of Personality and Social Psychology, 3, 551-558.

Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), Handbook of adolescent psychology. New York: Wiley.

Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L. (1993). Ego identity: A handbook for psychosocial research. New York: Springer-Verlag.

McCaul, E. J., Donaldson, G. A. Jr., Coladarci, T., & Davis, W. E. (1992). Consequences of dropping out of school: Findings from High School and Beyond. Journal of Educational Research, 85, 198-207.

McNeal, R. B. Jr. (1995). Extracurricular activities and high school dropouts. Sociology of Education, 68, 62-81.

McNeal, R. B. Jr. (1997). Are students being pulled out of high school? The effect of adolescent employment on droppint out. Sociology of Education, 70, 206-220.

Ministry of State for Youth. (1990). Qualitative research on school leavers: Summary final report. (CAI EI 90 Q96). Ottawa, ON: Government of Canada.

Modell, J., & Goodman, M. (1990). Historical Perspectives. Ch. 4 pp. 93-122 in S. S. Feldman and G. R. Elliot (Eds.) At the threshold: The developing adolescent. Cambridge, MA: Harvard University Press.

Munro, G., & Adams, G. R. (1977). Ego-identity formation in college students and working youth. Developmental Psychology, 13, 523-524.

Newcomb, M. D., & Bentler, P. M. (1986). Drug use, educational aspirations, and work force involvement: The transition from adolescence to young adulthood. American Journal of Community Psychology, 14, 313-321.

Newcomb, M. D., Huba G. J., & Bentler, P. M. (1981). A multi-dimensional assessment of stressful life events among adolescents: Derivation and correlates. Journal of Health and Social Behavior, 22, 400-415.

Nolen-Hoeksema, S. (1981). Responses to depression and their effects on the duration of depressive episodes. Journal of Abnormal Psychology, 100, 569-582.

Ouston, J. (1984). Delinquency, family background, and educational attainment. British Journal of Criminology, 24, 2-26.

Pallas, A. (1987). School dropouts in the United States. Washington, DC. US Government Printing Office.

Parker, J. G., & Asher, S. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? Psychological Bulletin, 102, 337-389.

Patterson, J. M., & McCubbin H. I. (1987). Adolescent coping style and behaviors: Conceptualization and measurement. Journal of Adolescence, *10*, 163-186.

Procidano, M. E., & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. American Journal of Community Psychology, *11*, 1-24.

Ptacek, J. T., Smith, R. E., & Zanas, J. (1992). Gender, appraisal, and coping: A longitudinal analysis. Journal of Personality, *60*, 745-770.

Quinton, D., Pickles, A., Maughan, B., & Rutter (1993). Partners, peers, and pathways: Assortative pairing and continuities in conduct disorder. Development and Psychopathology, *5*, 763-783.

Reyes, O., Gillock, K. L., Kobas, K., & Sanchez, B. (2000). A longitudinal examinatio of the transition into senior high school for adolescents from urban, low-income backgrounds. American Journal of Community Psychology, *28*, 519-544.

Rumberger, R. W., Ghatak, R., Poulos, G., Ritter, P. L., & Dornbusch. (1990). Family influences on dropout behavior in one California high school. Sociology of Education, *63*, 283-299.

Rumberger, R. W. (1995). Dropping out of middle school: A multilevel analysis of students and schools. American Educational Research Journal, *32*, 583-625.

Rumberger, R. W. (1987). High school dropouts: A review of issues and evidence. Review of Educational Research, *57*, 101-121.

Rumberger, R. W. (1983). Dropping out of high school: The influences of race, sex and family background. American Educational Research Journal, *20*, 199-220.

Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. Rolf, A. S. Masten, D. Cicchetti, K. H. Nuechterlein, & S. Weintraub (Eds.), Risk and protective factors in the development of psychopathology. New York: Cambridge University Press.

Ryan, R. M., & Powelson, C. L. (1991). Autonomy and relatedness as fundamentals to motivation and education. Journal of Experimental Education, *60*, 49-66.

Rylance, B. J. (1997). Predictors of high school graduation or dropping out for youths with severe emotional disturbances. Behavioral Disorders, *23*, 5-17.

Sandefeur, G. D., McLanahan, S., & Wojtkiewicz, R. A. (1992). The effects of parental marital status during adolescence on high school graduation. Social Forces, *71*, 103-121.

Savickas, M. L. (1984). Construction and validation of a physician career development inventory. Journal of Vocational Behavior, *25*, 106-123.

Savickas, M. L. (1985). Identity in vocational development. Journal of Vocational Behavior, *27*, 329-337.

Seiffge-Krenke, I., & Shulman, S. (1990). Coping style in adolescence: A cross-cultural study. Journal of Cross-Cultural Psychology, 21, 351-377.

Simmons, R. G., & Carlton-Ford, S. L., & Blyth, D. A. (1987) Predicting how a child will cope with the transition to junior high school. In R. M. Lerner, & T. T. Foch (Eds.), Biological-psychosocial interactions in early adolescence: A life-span perspective (pp. 325-375). Hillsdale, NJ: Erlbaum.

Steinberg, L., Blinde, P. L., & Chan, K. S. (1984). Dropping out among language minority youth. Review of Educational Research, 54, 113-132.

Tabachnick, B. G., & Fidell, L. S. (1996). Using multivariate statistics (3rd Ed.). New York: Harper Collins.

Tan, A. L, Kendis, R. J., Fine, J. T., & Porac, J. (1977). A short measure of Eriksonian ego identity. Journal of Personality Assessment, 41, 279-284.

Tesser, A., Campbell, J., & Smith, M. (1984). Friendship choice and performance: Self-esteem maintenance in children. Journal of Personality and Social Psychology, 46, 561-574.

Thoitis, P. A. (1986). Social support as coping assistance. Journal of Consulting and Clinical Psychology, 54, 416-423.

Ueda, R. (1987). Avenues to adulthood: The origins of the high school and social mobility in an American suburb. New York: Cambridge University Press.

Vondracek, F. W. (1990). Vocational identity development in adolescence. In R. K. Silberseisen & E. Todt (Eds.) Adolescence in context: The interplay of family, school, peers, and work in adjustment. New York, Springer-Verlag.

Waterman, A. S., & Archer, S. (1979). Ego identity status and expressive writing among high school and college students. Journal of Youth and Adolescence, 8, 327-341.

Wehlage, G. G., & Rutter, R. A. (1986). Dropping out: How much do schools contribute to the problem? Teachers College Record, 87, 374-397.

Weng, L.-J., Newcomb, M. D., & Bentler, P. M. (1988). Factors influencing noncompletion of high school: A comparison of methodologies. Educational Research Quarterly, 12, 8-22.

Appendix A

Recruitment Letter and Script for Participants

(University of Ottawa School of Psychology letterhead)

Dear Potential Research Participant,

I am doing research in Edmonton, Fort Saskatchewan, and Sherwood Park on the experience of students returning to high school. My name is Doug Schmidt and I'm a doctoral student in Psychology at the University of Ottawa. My thesis supervisor is Dr. Jane Ledingham. The goal of the study is to understand how certain factors influence the experience of returning to high school. We hope that the findings of this study will help students returning to school and teachers. The project is being done for my doctoral thesis and for later publication in a research journal.

If you agree to participate you would be asked to meet with me for about half an hour to answer questionnaires and provide information about yourself and your experience in returning to high school. The questionnaires would ask for information about your past experiences at school, your stress level, how you cope, your social contacts, and what you have decided so far about a job you would like to have. I would also include your scores on grade 9 achievement tests (departmental tests) in the study. Six months after we meet I would ask your teacher whether you are still attending school, the number of days you missed school, and your grades.

Participating in this study is your choice and under your control. You would be able to stop at any time and withdraw from the study without any problem or penalty. In the study I will be asking about personal information and if there are any questions or issues you feel uncomfortable about you are welcome to tell me or to not answer them if you wish. All results would be private and confidential. Results will be kept in a locked filing cabinet and no-one will see them except myself and my research supervisor. Your answers will be destroyed at the end of the study. Your results would also be anonymous. Personal information will not be disclosed. Nothing that you say will be reported when the results of the study are written. No names will be attached to any of the findings because answers of all the participants will be added together.

Appendix A (continued)

If you have any questions about the study please feel free to call me to discuss them at 780-474-7206 (or my supervisor Dr. Jane Ledingham at 613-562-5899 extension 4453).

Two copies of a consent form have been provided. One copy is for your information and is yours to keep. If you wish to participate, please write your name on the second copy of this consent form, return it to me, and I will set up a time to meet with you. If you participate you will receive a summary of the results of the study by the summer of the year 2000.

Sincerely,

Doug Schmidt, M.A.

Appendix B

Consent Form for Participants

Doug Schmidt, M.A., Ph.D. candidate at University of Ottawa (ph. 780-474-7206)  
Jane Ledingham, Ph.D., professor at University of Ottawa (ph. 613-562-5800 ext. 4453)

I, \_\_\_\_\_, consent to participate in a questionnaire study being conducted by Doug Schmidt, doctoral student and supervised by Dr. Jane Ledingham of the University of Ottawa regarding students returning to high school. The purpose of the study is to look at factors associated with a successful and lasting return to high school. The project is being done for a doctoral thesis and is also intended for later publication in a research journal.

I understand that if I agree to be in the study, my involvement will consist of a half hour session during which I will answer questionnaires about the experiences returning to high school. The questionnaires would ask information about my past experiences at school, my stress level, how I cope, my social contacts, and what I have decided so far about a job I would like to have.

I consent to allow the researcher to access my Grade 9 achievement test score results from schoolboard files or Alberta provincial government files. Three and six months after I answer the questionnaires the researcher will contact my teacher to ask if I have remained in school, the number of days I missed school, and my grades.

I can stop being in the study and withdraw from it at any time without any penalty or problem. If there are any questions I am uncomfortable with I am welcome to tell the researcher or to not answer them if I wish. The information obtained from these questionnaires will be kept private and confidential. Results will be kept in a locked filing cabinet and no-one will see them except the researcher and his supervisor. My answers will be destroyed at the end of the study. My results will be anonymous. Personal information will not be disclosed. No names will be attached to any of the findings because answers of all the participants will be added together.

I understand that students participating in the study will receive a \$5 restaurant gift certificate after completion of the questionnaire to thank them for participating.

Appendix B (continued)

Individuals who decided to withdraw from the study after signing up will also receive a gift certificate.

I understand that the questions in the questionnaire are about personal information and if I am uncomfortable about any question or issue I am free to tell the researcher. I am also free to not answer any questions I prefer not to answer.

I understand that there are two copies of this consent form. One is for my information and is for me to keep. The second is to provide my consent if I wish to participate.

If I have any questions about the study, I am welcome to call Doug Schmidt at 780-474-7206 or Dr. Jane Ledingham 613-562-5800 extension 4453.

**PARTICIPANT'S SIGNATURE:**

\_\_\_\_\_

**DATE:** \_\_\_\_\_

**RESEARCHER'S SIGNATURE:**

\_\_\_\_\_

**DATE:** \_\_\_\_\_

I wish to receive a summary of the results of this study (which will be available in August, 2000),  
at the following address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Appendix C

Recruitment Letter for Parents or Guardians

(University of Ottawa School of Psychology letterhead)

Dear Parent or Guardian,

I am doing research in Edmonton, Fort Saskatchewan, and Sherwood Park on the experience of students returning to high school. My name is Doug Schmidt and I'm a doctoral student in Psychology at the University of Ottawa. My thesis supervisor is Dr. Jane Ledingham. The goal of the study is to understand how certain factors influence the experience of returning to high school. We hope that the findings of this study will help students returning to school and teachers. The project is being done for my doctoral thesis and for later publication in a research journal.

I am writing this letter to ask if you would agree to allow your son or daughter to participate in this research project. If you and your son or daughter agree I would meet with him or her for about a half hour to answer questionnaires and provide information about his or her experience in returning to high school. The questionnaires would ask for information about his or her past experiences at school, and about his or her stress level, coping style, social contacts, and what he or she has decided so far about a job he or she would like to have. I would also include his or her scores on grade 9 achievement tests (departmental tests) in the study. Six months after meeting with your son or daughter I would ask his or her teacher some questions including whether your son or daughter is still attending school, the number of days he or she missed school, and his or her grades.

Your son or daughter's involvement in this study would be strictly his or her choice and under his or her control. He or she would be able to stop at any time and withdraw from the study without any problem or penalty. In the study I would be asking about personal information and if there are any questions or issues your son or daughter felt uncomfortable about he or she would be welcome to tell me or to not answer them if he or she wished. All results will be private and confidential. Results will be kept in a locked filing cabinet and no-one will see them except myself and my research supervisor. Answers will be destroyed at the end of the study. Results will also be anonymous. Personal information will not be disclosed. Nothing that your son or daughter says will be reported when the results of the study are written. No names will be attached to any of the findings because answers of all the participants will be added together.

Appendix C (continued)

If you have any questions about the study please feel free to call me to discuss them at 780-474-7206 (or my supervisor Dr. Jane Ledingham at 613-562-5899 extension 4453). Two copies of a consent form have been provided. One copy is for your information and is yours to keep. If you agree to allow your son or daughter to participate, please write your name on the second copy of this consent form. If your son or daughter participates you will be able to receive a summary of the results of the study by the summer of the year 2000.

Sincerely,

Doug Schmidt, M.A.

Appendix D

Consent Form for Parents, Guardians, and Social Workers

Doug Schmidt, M.A., Ph.D. candidate at University of Ottawa (ph. 780-474-7206)  
Jane Ledingham, Ph.D., professor at University of Ottawa (ph. 613-562-5800 ext.  
4453)

I, \_\_\_\_\_, consent to allow my daughter, son,  
ward or client

\_\_\_\_\_ to participate in a questionnaire study being conducted by Doug Schmidt, doctoral student and supervised by Dr. Jane Ledingham of the University of Ottawa regarding students returning to high school. The purpose of the study is to look at factors associated with a successful and lasting return to high school. The project is being done for a doctoral thesis and is also intended for later publication in a research journal.

I consent to allow the researcher to access the above named student's Grade 9 achievement test score results from schoolboard files or Alberta provincial government files. About three and six months after the above named student answers the questionnaires the researcher will contact her or his teacher to ask if she or he has remained in school, the number of days she or he missed school, and her or his grades.

I understand that if I agree to allow the above named student to be in the study, her or his participation will consist of a one to one and a half hour session during which she or he will answer questionnaires about the experiences returning to high school. The questionnaires would ask for information about his or her past experiences at school, and about his or her stress level, coping style, social contacts, and what he or she has decided so far about a job he or she would like to have.

I understand that the above named student can stop being in the study and withdraw from it at any time without any problem or penalty. I understand that the questions in the questionnaire are about personal information and if I my daughter or son is uncomfortable with any question or issue she or he is free to tell the researcher. The student is also free to not answer any questions she or he prefers not to answer. The information obtained from these questionnaires will be kept private and confidential. Results will be kept in a locked filing cabinet and no-one will see them except the researcher and his supervisor. The student's

Appendix D (continued)

answers will be destroyed at the end of the study. Results will be anonymous. Personal information will not be disclosed. No names will be attached to any of the findings because answers of all the participants will be added together.

I understand that students participating in the study will receive a \$5 restaurant gift certificate after completion of the questionnaire to thank them for participating. Individuals who decided to withdraw from the study after signing up will also receive a gift certificate.

I understand that there are two copies of this consent form. One is for my information and is for me to keep. The second is to use to provide my consent for my daughter, son, ward, or client if I agree to do so.

If I have any questions about the study, I am welcome to call Doug Schmidt at 780-474-7206 or Dr. Jane Ledingham 613-562-5800 extension 4453.

PARTICIPANT'S PARENT'S, GUARDIAN'S or SOCIAL WORKER'S  
SIGNATURE:

\_\_\_\_\_

RELATIONSHIP TO STUDENT:

PARENT

LEGAL GUARDIAN

SOCIAL WORKER

DATE: \_\_\_\_\_

RESEARCHER'S  
SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Appendix D (continued)

I wish to receive a summary of the results of this study (which will be available in August, 2000),  
at the following address:

---

---

---

---

Appendix E

Background Information Questions

Today's Date: \_\_\_\_\_

Name: \_\_\_\_\_ School: \_\_\_\_\_

Gender: Female: \_\_\_\_\_ Male: \_\_\_\_\_

Birthday: month \_\_\_\_\_ day \_\_\_\_\_ 19\_\_\_\_ Age: \_\_\_\_\_ years, \_\_\_\_\_ months

I have completed grade \_\_\_\_\_. I am now in grade \_\_\_\_\_.

When I left school I was \_\_\_\_\_ years, \_\_\_\_\_ months old.

I left school because \_\_\_\_\_.

I have left school \_\_\_\_\_ times.

Most recently, I was out of school for: \_\_\_\_\_ years, \_\_\_\_\_ months.

I have been back in school for \_\_\_\_\_ months.

I have \_\_\_\_\_ courses and \_\_\_\_\_ credits left to graduate.

My reasons for going back to school are (please check all that apply):  
(from Goldman & Bradley, 1996a)

- \_\_\_\_\_ to get a job
- \_\_\_\_\_ to get ready for more education
- \_\_\_\_\_ to prove something to myself
- \_\_\_\_\_ to stop being bored
- \_\_\_\_\_ because it's better than working
- \_\_\_\_\_ to please parents
- \_\_\_\_\_ to please friends
- \_\_\_\_\_ to please partner/boyfriend/girlfriend
- \_\_\_\_\_ other reasons: \_\_\_\_\_

Appendix E (continued)

My educational goal is to

\_\_\_\_\_ to complete high school

\_\_\_\_\_ to go on to trade school

\_\_\_\_\_ to go to a 2-year college program

\_\_\_\_\_ to go on to university

Appendix F

Work History and Family Socioeconomic Status

(this title will appear on the questionnaire)

Work History (this title will not appear of questionnaire)

These questions are about jobs.

I'm currently \_\_\_ not working \_\_\_ working as \_\_\_\_\_  
an average of \_\_\_ hours per week.

What jobs have you had in the past?  
\_\_\_\_\_  
\_\_\_\_\_

Socio-economic Status (this title will not appear on questionnaire)

What jobs do or did your parents have?

Mother: \_\_\_\_\_

Father: \_\_\_\_\_

Step-mother: \_\_\_\_\_

Step-father: \_\_\_\_\_

Appendix G

Life-Events Questionnaire

(These items will be randomized and presented without headings for administration).

Instructions: Check the following events which have occurred to you during the past year.

Family/Parental stress

\_\_\_ parents divorced

\_\_\_ family had money problems

\_\_\_ parents argued or fought

\_\_\_ parents abused alcohol or other substances

Accident/Illness

\_\_\_ family accident or illness

\_\_\_ given medication by physician

\_\_\_ death in family

\_\_\_ serious accident or illness

Deviance

\_\_\_ got in trouble with the law

\_\_\_ stole something valuable

\_\_\_ got in trouble at school

Relocation

\_\_\_ parent changed job

\_\_\_ changed schools

\_\_\_ family moved

Appendix G (continued)

Autonomy

- \_\_\_ found a new group of friends
- \_\_\_ began a time-consuming hobby
- \_\_\_ decided about college
- \_\_\_ joined a club or group  
home
- \_\_\_ got own stereo or TV
- \_\_\_ took vacation without parents
- \_\_\_ started driving
- \_\_\_ started making own money

Distress

- \_\_\_ face broke out  
with pimples
- \_\_\_ started seeing a  
therapist
- \_\_\_ thought about  
suicide
- \_\_\_ ran away from
- \_\_\_ got poor grades  
in school
- \_\_\_ gained a lot of  
weight

Appendix H

**The Adolescent Coping Orientation for Problem Experiences Scale (A-COPE)**

(These items will be randomized and presented without headings for administration).

**Instructions:** The following questions are about how you deal with difficult situations. Decide how often you do each of the described behaviours when you face difficulties or feel tense. Even though you may do some of these things just for fun, please indicate **ONLY** how often you do each behaviour as a way to cope with problems during the past six months:

1 = never, 2 = hardly ever, 3 = sometimes, 4 = often, 5 = most of the time

**Problem-focused Coping**

**Developing self-reliance**

- try, on your own, to figure out how to deal with your problems or tension
- organize your life and what you have to do
- try and think of the good things in your life
- try to make your own decisions
- try to see the good things in a difficult situation
- get a job or work harder at one

**Solving family problems**

- talk to your father about what bothers you
- talk to your mother about what bothers you
- do things with your family
- talk to a brother or sister about how you feel
- try to reason with parents and talk things out: compromise
- go along with parents requests and rules

**Engaging in demanding activity**

- do a strenuous activity (jogging, biking, etc.)
- get more involved in activities at school, work, or other social situation
- try to improve yourself (get body in shape, get better grades, etc.)

Appendix H (continued)

**Emotion-focused Coping**

**Developing social support**

- try to help other people solve their problems
- talk to a friend about how you feel
- cry
- try to keep up friendships or make new friends
- say nice things (warm fuzzies) to others
- apologize to people

**Seeking spiritual support**

- go to church (added: /mosque/synagogue)
- pray
- talk to a minister (added: /priest/rabbi)

**Investing in close friends**

- be close with someone you care about
- be with a boyfriend or girlfriend

**Seeking professional support**

- get professional counseling (not a school teacher or school counselor)
- talk to a teacher or counselor at school about what bothers you

**Being humorous**

- joke and keep a sense of humour
- try to be funny and make light of it all

Appendix H (continued)

Avoidant-focused Coping

**Ventilating feelings**

- get angry and yell at people
- blame others for what's going on
- say mean things to people: be sarcastic
- swear
- let off steam by complaining to your friends
- let off steam by complaining to family members

**Seeking diversions**

- sleep
- go to a movie
- go shopping: buy things you like
- read
- work on a hobby you have (sewing, model building)
- watch TV
- use drugs prescribed by a doctor
- play games (video games, others)

**Avoiding problems**

- use drugs (not prescribed by a doctor)
- drink beer, wine, liquor
- smoke
- try to stay away from home as much as possible
- tell yourself the problem(s) is not important

**Relaxing**

- daydream about how you would like things to be
- listen to music--stereo, radio, etc.
- ride around in the car
- eat food

Appendix I

Perceived Social Support Scale

Instructions:

The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relations with friends and families. For each statement there are three possible answers: Yes, No, Don't Know. Please circle the answer you choose for each item.

Friend Subscale Items:

1. My friends give me the moral support I need.
2. Most other people are closer to their friends than I am
3. My friends enjoy hearing about what I think.
4. Certain friends come to me when they have problems or need advice.
5. I rely on my friends for emotional support.
6. If I felt that one or more of my friends were upset with me, I'd just keep it to myself.
7. I feel that I'm on the fringe with my circle of friends.
8. There is a friend I could go to if I were just feeling down, without feeling funny about it later.
9. My friends and I are very open about what we think about things.
10. My friends are sensitive to my personal needs.
11. My friends come to me for emotional support.
12. My friends are good at helping me solve problems.
13. I have a deep sharing relationship with a number of friends.
14. My friends get good ideas about how to do things or make things for me.
15. When I confide in friends, it makes me feel uncomfortable.
16. My friends seek me out for companionship.
17. I think that my friends feel that I'm good at helping them solve problems.
18. I don't have a relationship with a friend that is as intimate as other people's relationships with friends
19. I've recently gotten a good idea about how to do something from a friend.
20. I wish my friends were much different.

Appendix I (continued)

**Family Subscale Items:**

1. **My family gives me the moral support I need.**
2. **I get good ideas about how to do things or make things from my family.**
3. **Most other people are closer to their family than I am.**
4. **When I confide in members of my family who are closest to me, I get the idea that it makes them uncomfortable.**
5. **My family enjoys hearing about what I think.**
6. **Members of my family share many of my interests.**
7. **Certain members of my family come to me when they have problems or need advice.**
8. **I rely on my family for emotional support.**
9. **There is a member of my family I could go to if I were just feeling down, without feeling funny about it later.**
10. **My family and I are very open about what we think about things.**
11. **My family is sensitive to my personal needs.**
12. **Members of my family come to me for emotional support.**
13. **Members of my family are good at helping me solve problems.**
14. **I have a deep sharing relationship with a number of members of my family.**
15. **Members of my family get good ideas about how to do things or make things from me.**
16. **When I confide in members of my family, it makes me feel uncomfortable.**
17. **Members of my family seek me out for companionship.**
18. **I think that my family feels that I'm good at helping them solve problems.**
19. **I don't have a relationship with a member of my family that is as close as other people's relationships with family members.**
20. **I wish my family was much different.**