

LOCUS OF CONTROL, ATTRIBUTIONAL STYLE, AND SCHOOL TRUANCY -  
THE CASE OF HONG KONG

by

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## ABSTRACT

The present study on school truancy was developed out of a concern about students who do not adapt to the demands of the school environment as they go through the process of transition from primary school to secondary school. It suggested that the school environment in which we expect to see behavioral manifestations of the internal conflicts which adolescents face. Specifically, it suggested that truancy is a behavior that indicates a student is not adapting to the rules and regulations of the school environment. It suggested that this behavior be explored in terms of psychological variables relevant to adolescent development.

A theoretical framework derived from attribution theory and locus of control theory was utilized in an effort to explore these issues. The overall concern of the study was to understand more fully the patterns of locus of control and causal attributions of secondary school truants and non-truants in Hong Kong. The key research question was how truants and non-truants differ in these patterns in relation to family and school experiences and how these relations vary within each group. The research question was examined in a sample of 384 secondary school students of the junior forms. A structured questionnaire was administered to the students in class to obtain their responses to family and school experience measures, a slightly modified version of the Nowicki-Strickland Locus of Control Scale, and an adapted version of the Attributional Style Questionnaire.

The results of ANOVA showed that the truants scored higher externality of locus of control than the non-truants although the difference was slightly short of statistical significance. Multivariate analysis of variance showed that the truants scored significantly higher on the composite measure as well as each of the three dimensional measures of bad outcomes than the non-truants. The result also showed that the truants scored significantly lower on the composite measure as well as each of the three

dimension measures of good outcomes than the non-truants. This pattern of attribution indicates that the truants would attribute bad events as due to internal, stable and global causes and would attribute good events as due to external, unstable and specific causes. The findings further suggest that negative experiences in school provide the context for truancy to occur. Results show that, the truants reported poorer relations with teachers, a tendency of disbelieving in the value of schooling, and more frequent involvement in problem behaviour.

Clearly, the relation among truancy, locus of control, attributions, and their family and school experiences is a complex one. In view of this, the present study is conceived as an attempt leading to an initial evidence for linkages among truancy status, locus of control, family and school experiences and children's attributions for school events. This further suggests that the approach of this study may have been sound and that more research should be conducted to find additional support for the observed relationships. It is hoped that continued testing of this approach to the study of school truancy may serve to explain why some students play truant from school but others do not, even though both groups are low academic achievers.

# CHAPTER I

## INTRODUCTION

This thesis is prompted by a concern with the problems faced by Hong Kong students as they go through the period of transition from primary school to secondary school. The basic premise is that students' psychological characteristics may have powerful adverse effects on their behavioural responses to the demand of the school environment.

School truancy is conceived as a maladaptive response to the demand of the school environment due to deficits in the areas of locus of control and attributional style. The main purpose of the present thesis is to examine whether the psychological characteristics of truants differ from those of non-truants. The objective is to identify the factors which differentiate between these two groups of students, particularly in the areas of locus of control and attributional style.

The term truancy reflects the judgement of authorities about particular patterns of school absence behaviour. As stated by Good (1973: p. 625), truancy is:

"(1) deliberate absence from school on the part of the pupil without the knowledge and consent of the parent (2) absence of a pupil from school for which no reasonable or acceptable excuse is given."

In Hong Kong, "truancy" and "non-attendance" are used to describe school absence behaviour. According to Guidelines on Main Problems in Social Work Service in School (Hong Kong Council of Social Service, 1980), "truancy" refers to a student absenting himself/herself from school without approval from his/her guardian/parents or the school authority. However, a student absenting himself/herself from school for a consecutive period of 14 days or more is referred to as a "non-attender" or a case of suspected dropout under the provision of the Compulsory Education Ordinance. The former term is regarded as the violation of rules and regulations of the school, whereas the latter term has an implicit reference to the violation of law.

Locus of control is a psychological construct of generalized expectancy. When individuals believe they have more control over their successful attainment of a desired

reinforcement or reward than outside or independent forces, they are considered to have an internal locus of control. If individuals believe their successful attainment of a desired reinforcement or reward is primarily controlled by forces outside or independent of their control, they are considered to have an external locus of control (Rotter, 1966).

Attribution refers to the way individuals assign causes to specific events. Attributions to be made relate to selected events in the school environment for both self and others.

### RATIONALE FOR THE STUDY

Since our interest is centered upon school truancy among secondary school students in Hong Kong, it is germane to describe the historical background of the policy of a nine-years' universal, free and compulsory education, and the extent of school absenteeism since its implementation.

#### Nine-years' universal, free and compulsory education

Hong Kong in the last several decades has grown rapidly from a small fishing village into a large urban centre. With a continued influx of immigrants from China over the last several decades, many children and youth from poor families have been deprived of the opportunity to receive formal education. This situation was most evident in the early 1960's. Even for those who had the opportunity to complete primary school, less than one-third were able to obtain places in secondary schools. The lack of educational opportunities, among other factors, was said to contribute to youth unrest and rebellious behaviour and the rapid increase in crime and delinquency (Hong Kong Government, 1962).

Recognizing the need to provide more educational opportunities for youth and to keep up with the pace of economic development, Hong Kong was ready to have an educational reform with the objective to provide every child with the best education. This objective was to be achieved by a free and compulsory education up to junior secondary level. With limited resources in the late 60's however, the policy of free and compulsory education was not implemented, and the Government was able to subsidize



only 20 percent of the places in secondary school.

Even though some progress had been made to provide educational opportunities to young people, many of them remained out of school. A survey of resettlement estates in 1968 showed that in one-third of the sampled households at least one child between 5 and 14 years of age was at work, full-time or part-time (Podmore, 1971). The 1971 Census also revealed that nearly 50,000 children and youth between the ages of 12 and 14 were not attending school (Hong Kong Government, 1971).

A concomitant development in the late 60's was the setting up of a Fight Crime Committee to investigate the causes of youth crime. The Social Research Centre of the Chinese University of Hong Kong was commissioned to undertake a study on the social causes of violent crimes among young offenders (Ng, 1975). In this study, dropping out of school was found to be a major factor associated with triad affiliation leading to criminal behaviour. These findings suggested to policy makers that keeping a youth in school was an effective way of combating crime and delinquency, and thus reaffirmed the value of a policy to provide more educational opportunities to young people.

The goal of a nine year free education for all children under 15 years old was confirmed in the "1974 White Paper: Secondary Education in Hong Kong over the Next Decade", but the policy was not fully implemented until 1979 when the Government began to subsidize all places in both primary school and junior level of secondary school (Postiglione, 1992). With the implementation of this policy, all young people at the age of fifteen are expected to have received an education up to Form Three, and all primary school graduates are provided access to secondary education.

#### Extent of school absenteeism

In order to ensure the implementation of this policy, the Compulsory Education Ordinance was introduced which empowered the Director of the Education Department to issue a school attendance order in respect of any student who does not have good reasons for not attending school for a consecutive period of fourteen days. Such cases are referred to as "non-attendance". These students are suspected cases of school dropout at an age of under 15 when they are expected to receive compulsory education

as enacted by the Compulsory Education Ordinance.

Less serious cases of school absenteeism are generally referred to as "truancy". The procedure of identification and reporting of such cases as recommended by the Education Department (Education Commission, 1992) is as follows: If a student was absent from school for 1 or 2 days in succession without any apparent reason, the Head of the school should contact the student's guardian or parent by phone or arrange for a home visit. If he or she was absent for 7 days, the school should report to the Non-attendance Cases Team of the Student Guidance Section. However, some cases may go undetected or are not subject to the formal procedures used by the Education Department to deal with truancy. The problem of undetected cases of truancy means that the exact dimensions of school absenteeism cannot be carefully documented. Neither clear-cut nor consistent answers can be given to questions about the patterns, extent and distribution of school absence behaviour.

Government statistics only show the total number of suspected cases of school dropout who had cut school for a consecutive period of fourteen days or more. In the academic year 1991-92, a total of 5,763 such "non-attendance" cases were reported for the lower forms of secondary school (Hong Kong Government, 1992). However, these statistics do not tell the whole story. If truants and school dropouts could be effectively identified and included in the figure, absenteeism problems in secondary schools may be even much greater than statistics indicate.

While this thesis does not deal with the magnitude of school absenteeism, it should be noted in passing that no local research has been undertaken to examine this phenomenon. The objective of this thesis is to provide some useful information on "truancy" cases and to identify, in a selective but theoretically appropriate manner, the psychological factors which may contribute to these patterns of absence behaviour.

It is also important to note that the policy of free education does not encourage students to repeat in primary schools. The rate of repeaters due to academic failure is limited to 3.0 per cent in order to reduce the number of over-age children in primary schools. This practice has resulted in a group of less motivated students with accumulated academic failure in mainstream education. These students are forced to

remain in school until they are fifteen years old. Since the introduction of the policy, there has been a significant number of students with low academic achievement and disciplinary problems. Unruly and delinquent behaviour, including truancy, may be manifestations of adjustment problems in secondary school in Hong Kong.

As stated by a former Director of Education in the Legislative Council in November of 1980:

"My department did not expect the extension of compulsory education to be painless ... We have, with our eyes open, taken problems from our streets and transferred them to the classroom." (cited in Ng, 1981: p. 195)

According to a survey on "Unruly and delinquent behaviour of pupils in secondary schools" (Hong Kong Government, 1989), more than 60,000 cases of unruly and delinquent behaviour were committed by 37,000 secondary school students during the first four months of 1987. This figure gives some idea about the magnitude of student problems in secondary schools, and suggests that such problems may be related to adjustment to, and the demand of the school environment.

It has been noted in western literature that school absenteeism of any kind is critical to academic achievement and has an effect on the school and the community.

Since the 1920's, school attendance has been found to be related in varying degrees to the grades earned and course failure (Brown, 1990; Cronin, 1973; Finch & Newzek, 1935; Greene, 1963; Kersting, 1967; Mullin, 1955; Nelson, 1972; Odell, 1923; Rogers, 1980; Voss, 1977; Wise, 1994), and the amount of time actually spent in the classroom has been shown to be directly related to academic achievement (Lomax & Cooley, 1979; National Center for Education Statistics, 1996; Rieth, Polegdrove, & Semmer, 1977; Rosenshine & Berliner, 1978). The adverse effects of school absences on individual achievement has also been noted (Bosworth, 1994; Brokowski & Dempsey, 1979; Monk & Ibrahim, 1984; Rozelle, 1968). The general conclusion is that the more absences a student has, the more adversely achievement is affected.

School absenteeism does not only affect individual achievement, it can also have adverse effects on the school. Truancy has been found to be associated with school

misbehaviours such as stealing, fighting, drinking alcohol, using drugs, disrupting class and vandalism (Department of Justice, 1996; Neilson & Gerber, 1979). Its adverse effects on the school's administrative efficiency, teacher efficiency, and academic performance of classmates have also been reported by some researchers. For example, a survey conducted by Brimm, Forgety, and Sadler (1978) showed that the school's administrative efficiency was greatly reduced because school administrators had to spend an inordinate amount of time and effort dealing with attendance problems. In another study (Deleonibus, 1978), teacher efficiency was found to be affected by the disruptive and time-consuming tasks of having to confer with returning students about missed assignments, reschedule tasks and reorient students to ongoing activities. Reduced teacher efficiency in turn has a negative effect on achievement at the classroom level. Monk and Ibrahim (1984) reported that students in a class with more absentees were affected academically more adversely than those students in classes with fewer absentees because a great deal of teaching resources were spent on giving remedial help to those students who were absent.

The effects of school absenteeism on the community have been related mainly to school dropout, delinquency and crime. Poor school attendance has long been recognized as one of the first signs that a student is withdrawing from the educational process. School dropouts have been found to be associated with students with a poor record of school attendance (Department of Justice, 1996; Greene, 1966; Hammer, 1970; Schreiber, 1964, 1968). More serious is the propensity of truants and school dropouts toward delinquency and involvement in crime (Department of Justice, 1996; Morris, 1972; Walberg, 1979). In a study of inmates of a state prison (Vedder & Thomas, 1979), for example, 89 per cent of the inmates were found to have had a history of school truancy.

In a summary of findings of a survey, Neill (1979) has identified the negative effects of poor school attendance to include permanent intellectual damage to the student, the overall lowering of academic standards, frustrations and morale problems experienced by teachers, poor community relations, increased paperwork burden, and reduced state aid.

There is little doubt that school absenteeism is a significant cause for concern,

bringing the role, nature and practices of the school into sharper focus. As Birman and Natriello (1978: p. 170) put it:

"... high-absenteeism rates threaten the school's legitimacy as an institution which is legally required to educate all young people."

A study of school absenteeism is sorely needed in Hong Kong. The policy of a nine-years' universal, free and compulsory education was introduced in 1978 to ensure the right of all children to receive an education up to Form Three in secondary school or when they reach 15 years of age. Since the inception of this policy however, school absenteeism has been a pervasive problem for both educators and school social workers. Yet, no research has been undertaken to examine this phenomenon and the characteristics of the school absentees.

A study of factors which contribute to school absenteeism may help school staff to understand and help the school absentees before they become school dropouts. Such a study is important, both for the students themselves and for society. In particular, an understanding of school absenteeism, which may suggest better means to enhance school attendance, may contribute to a more effective policy and service delivery to promote universal education.

Specifically, such a study will have potential utilities for practice in school guidance and school social work, as well as in the area of consultation, collaboration and policy formulation. Without an empirical basis to inform practice, existing institutional responses to school absenteeism may act as barriers to the educational role and thus the social development of young people.

### THEORETICAL BACKGROUND

School absenteeism can be seen as a "symptomatic behavior indicative of an unfavorable adjustment between the learner and the educational and social environment in which he or she is operating" (Greene, 1963: p. 389). Many researchers have also pointed out that the root problem of this unfavourable adjustment resides in the individual, family, school and peer groups (Birman & Natriello, 1978; Brown, 1983;

Coventry, Cornish, Cooke, & Vinall, 1984; Mervilde, 1981; Truax, 1985). The present study of school truancy does not examine all of these factors. Rather, it may be viewed as an investigation of some of the significant psychological factors which relate to school adjustment and its consequences for learning. Specifically, the intent is to approach the problem from the personality point of view; i.e. to examine the psychological characteristics of students who play truant from school. It is further expected that truants and non-truants would differ on these psychological dimensions.

School truancy, when viewed as a behavioural manifestation of unfavourable adjustment to school, it is necessary to examine the problems of adolescence. It has been observed that

"... adolescence is most prominently characterized by physical change, changes which are reflected in all facets of behavior ... the adolescents' interests, their social behavior, and the quality of their affective life." (Blos, 1962: p. 5)

Blos (1962) described adolescents as "temporary misfits" or individuals who have not found their place in life caught between childhood and adulthood in a developmental "no man's land". Erikson (1963) described the period of adolescence as one of conflict between identity versus role confusion and intimacy versus isolation.

Having presented the "conflict" view of adolescence, it should be noted that this view has been challenged by more recent research which suggests that for many adolescents it is not a time of chaos (Coleman & Hendry, 1990). According to a "focal" model of adolescent development, the adolescents are able to cope with the stress of growing up by tackling one issue or relationship at a time, but problems can occur to those who have more than one issue and relationship to deal with at the same time (Coleman & Hendry, 1990). It may be true that the "conflict" view of adolescence is inadequate as a basis for an understanding of the development of the great majority of young people. However, it provides the foundation for understanding adolescents with problems and those who belong to minority or deviant groups such as the school truants. The "focal" model of adolescent development may, on the other hand, serve to explain why the majority of the adolescents are able to cope with their development tasks successfully and why the minority are unable to cope.

According to Jessor (1982) and Marwell (1969), engaging in socially inappropriate and undesirable behaviours is one aspect of the developmental transition of adolescents and an attempt to cope with the increasing stresses and problems of "growing up". The relevance of this observation may be found when school truancy is viewed not only as a matter of a desire for independence, a search without a goal, but also an expression of inner discontent and restlessness (Mankita, 1981) and a maladapted form of coping (Grymaloski, 1991). Engelberg (1981) also followed this line of thinking, and conceived class cutting and school absences as a result of students' failure to adapt to the demands of the school.

To the adolescents in Hong Kong, the most critical demand is to succeed. It has been shown that Hong Kong parents, regardless of their educational level, place a great emphasis on education and academic achievement as a prerequisite to future success (Ho, 1979). The demand to succeed is also made explicit by the institutional arrangement of schools, involving grading and streaming processes which sift and sort young people into "success" and "failures". Failing to meet this demand may have undesirable effects on school adjustment, particularly for those who have more than one issue or relationship to deal with in their transition from primary school to secondary school.

To this problem of adjustment we must ask: Why are some adolescents more able to respond to the demands of the school environment than others? Do they possess certain cognitive or personality styles which enable them to make a more adaptive response to the rules and regulations of the school environment? In Hong Kong, compulsory school attendance is an expected behaviour of the adolescent. The rules are clear to every student. Yet there are students who do not respond to these rules and do not accept the responsibilities of being a student by playing truant. How are these students different from those who appear to be responsible and observing of these rules? Does truancy reflect personality differences among adolescents with respect to feelings or beliefs of control? Does it reflect differences in causal attributions to success and failure in school?

The present thesis is prompted by a concern about students who do not respond in an adaptive way to the demands of the school environment. A review of pertinent

literature suggests that the psychological variables locus of control and attributional style may account for the differences among adolescents in their ability to respond to the rules and regulations of the school. A review of attendance studies also indicates that relatively few studies have approached the school absenteeism problem from the viewpoint of psychological functioning of the adolescent, and no study has pursued the idea of establishing different patterns of locus of control and causal attribution in the explanation of school truancy.

An overview of each of these constructs is presented below with a discussion as to why they were selected as the focus of this study.

### Locus of control

The locus of control construct was explained by Rotter (1972) as a concept of internal-external control of reinforcement. According to Rotter (1966), central to this construct is a generalized expectancy variable, the expectancy being the degree to which individuals perceive their own behaviour or attributes as affecting the reinforcement or reward they receive as an outcome in a given situation, and the perceived value of that reinforcement or reward. When individuals believe they have more control over successful attainment of a desired reinforcement or goal than outside or independent forces, they are considered to have an internal locus of control. If individuals believe successful attainment of a desired reinforcement or goal is primarily controlled by forces outside or independent of their control, they are considered to have an external locus of control.

Joe (1971) and Lefcourt (1982) both concluded, after a review of research, that the majority of studies suggest a positive relationship between locus of control and achievement despite the wide range of assessment instruments used. Studies by Willey (1978), and Brown (1980) found, as did other studies, that academic achievement is significantly related to locus of control; with internality being associated with higher achievement.

The relationship of external locus of control to poor academic achievement is important for the present study on school truancy, for poor class and school attendance



have been found to be associated with poor grades and course failure (Brown, 1990; Cronin, 1973; Finch & Nemzek, 1935; Greene, 1963; Kersting, 1967; Mullin, 1955; Nelson, 1972; Odell, 1923; Rogers, 1980; Voss, 1977; Wise, 1994).

### Attributional style

Attributional style is concerned with the way in which individuals attribute causes to particular events. Seligman (1975) has investigated the situation where there are no adaptive behaviours possible because of the perception of loss of control and the expectation of response/outcome independence. The perception of loss of control is the essential mediating variable responsible for the production of the learned helplessness phenomenon (Seligman, 1975) which is characterized by internal, stable, and global explanations for uncontrollable events (Peterson, Maier, & Seligman, 1993). Research has shown that learned helplessness can be applied not only to academic failure, but also a wide range of failures of human adaptation (Peterson, Maier, & Seligman, 1993).

### Research questions

The key issue of the present thesis is how causal beliefs of the adolescents in Hong Kong and their judgments about the causes of school events relate to school truancy. To understand more fully the patterns of locus of control and causal attributions of the truants, the thesis addresses the following research questions: Do truants and non-truants differ in family and school experiences ? Do truants and non-truants differ in their patterns of locus of control and causal attributions ? How do these patterns relate to family and school experiences ? How do these relations vary within the truant and non-truant groups ?

Some research has been done on locus of control (Hsieh, Shybut, & Lotsof, 1969; Leung, Salili, & Baber, 1986; Mak, 1988) and attribution (Chung, Siu, & Wong, 1986; Hau, 1992; Hau & Salili, 1990, 1991; Mak, 1988; Salili & Mak, 1988; Wan & Bond, 1982) of Chinese adolescents in Hong Kong, but none of the investigations has been conducted in relation to school truancy. In addressing the research questions, the present thesis will contribute usefully by providing the first material on these relations, as well as extending the research work on locus of control and causal attribution in Hong Kong.

## CHAPTER II

### REVIEW OF LITERATURE

Before turning to these research questions directly, the relevance of locus of control and causal attributions for the problem of school truancy will be discussed in the context of the theories of adolescence. The research findings of studies on school absenteeism, some of which may shed light on the social and psychological dimensions of the problem, will also be reviewed.

#### ADOLESCENCE

The “conflict” and “focal” model of adolescent development are two most common approaches to the understanding of adolescent problems. These theoretical approaches will be presented below together with a discussion of their relevance to the understanding of adolescent problems in Hong Kong.

#### The “conflict” and “focal” model of adolescent development

Erikson's theory of adolescence (1963, 1968) suggests that the psychological variables under the present study are relevant to the adaptive functioning of adolescents. In the context of this theory, the adolescents' attendance behaviour and their ability to adapt to the demands of the school would be viewed as reflecting the changes that take place during adolescence.

Adolescence is the period in human development when the individual makes the transition from childhood to adulthood. However, the individual is caught between dependency which is the hallmark of childhood and the "perogatives, responsibilities, and self-sufficiency" of adulthood (Lidz, 1976: p. 307). Erikson (1963) described this period of transition as one of conflict between identity versus role confusion and intimacy versus isolation.

However, there are individual variations in the duration of adolescence. Some individuals have a longer duration than others. Although the onset of adolescence is clearly marked by puberty, the duration of adolescence is determined by both idiosyncratic factors of individual development and the demands of the social and

cultural environment in which the adolescent lives.

Central to Erikson's theory is the emphasis on the cultural and environmental influences and the adaptive role of the ego in adolescent development. In his view, adolescent development is not merely a result of physical maturation but also personal-environment transactions which result in the various changes that occur in what are conceived as "psychosocial stages." Each psychosocial stage is characterized by a particular task. The task of adolescence is the acquisition of an ego identity and the resolution of identity crisis (Erikson, 1968). The formation of ego identity grows out of social roles and experiences when the individual interacts with his or her social and cultural environment. In Erikson's words (1968: p. 211),

"ego identity is the result of the synthesizing function on one of the ego's frontiers, namely that 'environment' which is social reality as transmitted to the child during successive childhood crises."

According to Erikson, an adolescent with a strong ego identity sees himself as a unique individual because there is a working answer to the identity question "who am I?".

A concomitant change in adolescence is the development of intellectual potential. An increase in cognitive potential is necessary in order to cope with the tasks and conflicts imposed by physical maturation and environmental demands. Cognitive theorists speak of stages of cognitive development as being influenced by physical maturation and appropriate environmental stimulation. Inhelder and Piaget (1958) have shown that the transition from the dependency of childhood to the independence of adulthood is made possible not only by personality changes but also by an increase in intellectual capacities. Of the stages of cognitive development, "formal operations" appears to have most important consequences for intellectual and social development. It occurs roughly at the time of puberty during which the child becomes capable of conceptualizing social and logical systems. The child becomes interested in ideas that are beyond the dominant aspects of his own personal situation and beyond the consequence of the present moment, and begins to direct his behaviour according to the values of social systems rather than only through his own interpersonal context.

Erikson's "conflict" view of adolescence has been challenged by more recent research which suggests that for many adolescents it is not a time of chaos (Coleman & Hendry, 1990). As stated by Coleman and Hendry (1990: p. 201), "although a small minority may show disturbance, the great majority of teenagers seem to cope well and to show no undue signs of turmoil or stress". A "focal" model of adolescent development suggests that for the general population of young people their successful adaptation is explained by their ability to spread the process of adaptation over a span of years, by tackling one issue or relationship at a time (Coleman & Hendry, 1990).

The Piaget's theory of cognitive development has been criticized for being too restrictive in its interpretation of human development as a sequence of stages of equilibria representing a succession of plateaus at which the operational and cognitive structures are in balance (Riegel, 1976). Balance and imbalance of an individual's cognitive structure are determined by inner dialectics as expressed by Piaget's concepts of assimilation and accommodation, with little attention given to the determining influences of outer or social dialectics. A dialectical interpretation of human development, in contrast, rejects the notions of equilibrium and balance, and conceives development as dialectically determined and consisting of continuing changes brought about by contradictions along several dimensions of progressions which create discordances and conflicts (Riegel, 1976). This interpretation is in line with the argument for the rejection of the stage of formal operational thinking as necessarily the "final equilibrium" in cognitive development (Inhelder & Piaget, 1958) and the acceptance of "dialectical thinking" as a fifth stage of development in adulthood. As suggested by Gruber and Barrett (Arlin, 1975), consistent progressive changes in thought structures extend beyond the level of formal operations throughout adulthood.

A review of these theories of adolescent development suggests that the influence of the social and cultural environment is important for the development of personality and cognitive potential. Social development, or the adaptation to the norms and values of the society, is made possible by an increase in cognitive functioning, and by the development of a separate identity. From these theories, it is clear that social development cannot take place without the integration of psychological and cognitive factors. Nor can it take place without conflict, conflict within the individual as well as conflict resulting from the individual's interaction with his social and cultural

environment.

### The “conflict” and “focal model” interpretation of adolescent development in Hong Kong

The relevance of the “conflict” and the “focal model” interpretations of adolescent development will be examined in the light of empirical evidence in Hong Kong.

In Hong Kong, like any other parts of the world, the adolescent must strive to create a place for himself/herself in society, and learn to respond in new ways if he/she is to make the transition from childhood to adulthood. In this transition, the personality formed during childhood must undergo an integration and consolidation that will enable the adolescent to function as an adult in a society in which everyone is responsible for himself. Not only must the adolescent give up the dependent status that is accorded to him/her as a child, and adjust to a society which rewards independence and initiative, he/she must also form a new concept of self that is congruent with the changes emerging out of the maturational process.

Some empirical evidence seems to suggest that the relevance of the “conflict” view of adolescence be re-considered, if not rejected in Hong Kong. A survey of 3,917 school youth aged 13 to 20 was conducted by the Family Planning Association of Hong Kong (1983) to solicit their opinions about a wide range of relationships. Information was included on interpersonal relationships within the home, adolescent growth experience, and attitude to and behaviour in heterosexual relationships. Stated as a part of the conclusion in the report (Family Planning Association of Hong Kong, 1983: p. 143),

“ ... we become aware of the distortions in the image of our youth projected by the mass media, and in daily conversation in the adult world. Most of our youth maintain good interpersonal relationships within the home, and their impression of their parents were found to be moderate and to some extent very reasonable. They restrain themselves from going too far in physical intimacies in dating and retain a realistic expectation of the boy-girl relationship most of the time ...”

A questionnaire survey of a probability sample of 1,464 secondary school students selected from 38 schools (Cheung & Tam, 1984) also found that the self-esteem of adolescents was generally tilted towards the positive side, and that their self-esteem was

significantly affected by their relationship with the family and school. These findings suggest that the young people in Hong Kong were generally successful in coping with the challenges of adolescence, and the major source of challenges appear to have come from pressures from the family and school. However, a more recent research seem to suggest that there is a general deterioration in the self-esteem of young people in Hong Kong. In a questionnaire survey of 1,625 secondary school students selected from a proportional stratified sample of secondary schools (Commission on Youth, 1995), 34.4 percent of the students were found to have negative self-esteem. The self-esteem of an average student was found to be slightly tilted towards the negative side, and was significantly related to experiences of stress in the area of study, personal emotions, peer and family relationships and sex-related matters.

The “conflict” view may be inadequate as a basis for an understanding of the development of the majority of young people in Hong Kong. Ho (1981) has stated that adolescence does not appear to be marked by turmoil and rebelliousness among Chinese. This appears to be due to the children’s participation in many of the adult activities in the family which makes their world not so different from that of adults (Ho, 1981). Thus through adolescence there is a high degree of continuity from childhood to adulthood. Nevertheless, the “conflict” view provides the foundation for understanding adolescents with serious problems and those who belong to minority or deviant groups such as the school truants. According to the ‘focal’ model of adolescent development, these adolescents are most likely to be those who have more than one problem and different relationship issues to cope with at the same time (Coleman & Hendry, 1990). This analysis indeed suggests that both the “conflict” and the “focal model” interpretations of adolescent development are relevant to the study of school truancy in Hong Kong, and contains further suggestions that the psychological and cognitive variables locus of control and attributional style may be factors in differentiating truants from non-truants, particularly when school truancy is seen as a maladaptive behaviour.

#### LOCUS OF CONTROL, CAUSAL ATTRIBUTIONS AND PSYCHOSOCIAL DEVELOPMENT

Locus of control is a construct central to Rotter’s (1966) social learning theory. As a construct measuring the degree to which one feels in control over one’s life events,

locus of control may be a factor in overcoming childhood dependency and the development of independence that is needed for adult functioning. The importance of locus of control is suggested by the desire of the adolescents to direct their own lives in order to free themselves from dependency on parents (Lidz, 1976). Erikson (1964) proposed that successful adjustment at any stage of psychosocial development involves an active attitude, or sense of active mastery, as opposed to a passive dependence on external influence. Thus, positive psychosocial development, or the development of personal autonomy, would be associated with an individual's feeling of being in control over one's life events.

The adolescent's expressed desire for more freedom and autonomy suggest that locus of control is a significant factor in school adjustment. When adolescents feel that they lack control over events in their lives they may become frustrated. What are seen as socially undesirable behaviours can be taken as a form of systematic response to their feelings of frustration reflecting the fundamental motivation to regain control or validate self-identities. Thus, in striving for autonomy, or a separate identity, students may seek behavioural alternatives that are neither constructive nor acceptable to the demands of the school. Research on school absenteeism has shown that truancy is a behavioural manifestation of the adolescent's drive for autonomy, or an inability to respond to the demand of the school environment (e.g., Blos, 1962; Engelberg, 1981; Mankita, 1981). Logically, it is reasonable to expect that truancy may be related to feelings of control that the student has with respect to events in his school life, particularly feelings of control over his performance in school.

Perhaps the relevance of attributional style to psychosocial development is related to the development of self-concept. Erikson (1968) places a great deal of emphasis on the role of environmental outputs of significant relations in the development of self-concept. He sees the development of a meaningful self-concept as a continuing process in the acquisition of ego-identity and the resolution of identity crisis. An adolescent's self-concept is always influenced by his/her relationships with the environment through interaction with significant relations. The school environment, which imposes a set of demands on the adolescent, is of prime importance. The most critical demand is to succeed. Failing to meet this demand may result in negative feedbacks from teachers, school peers, and even parents. Negative evaluations clearly poses difficulties in

developing a meaningful self-concept which may further reinforce the young person's low status. Such difficulties can lead to a search for an identity in a negative way through further punishments and negative evaluations from significant relations. Rule-breaking and acting-out behaviours, including truancy, may be some of the overt manifestations.

Attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967) is a theory of social psychology dealing with the causes individuals ascribe to their behaviour or the behaviours of others. Attribution theorists assume that individuals are motivated to understand the environment and to identify and assign the causes of events in a systematic manner. This theory differs from psychosocial and cognitive theories in its specific interest in the individual's perceptions of the causes of events rather than with actual or true causes. An individual's causal attributions may be accurate or erroneous. However, the individual's assignment of causes for events lead to feelings and behaviours in accordance with his/her causal inferences.

Weiner (1974) suggests that causal attributions may serve to maintain an individual's self-concept. He points out that an individual with a low self-concept makes internal attributions for failure and external attributions for success as a way of maintaining low self-concept. Research findings are consistent with this view (Fitch, 1970; Kukla, 1972; Weiner & Kukla, 1970; Weiner & Potepan, 1970; Wortman & Brehm, 1975). The helplessness reformulation (Abramson, Seligman, & Teasdale, 1978) also predicts that internal attributions for bad events are associated with loss of self-esteem. This prediction is also supported by empirical evidence (e.g., Brewin & Shapiro, 1984; Devins, 1982; Fielstein, Klein, Fischer, Hanan, Koburger, Schneider, & Leitenberg, 1985; Girodo, Dotzenroth, & Stein, 1981; Ickes & Layden, 1978; McFarland & Ross, 1982; Rothwell & Williams, 1983; Weiner, 1979). Although the direction of influence remains unclear, the established relationship between causal attributions and self-concept suggests that attributional style is a significant factor in adjustment to the school and such maladaptive responses to its demand as truancy.

Attribution theory will be examined in more detail in the next chapter. The research work in Hong Kong on causal attribution of the Chinese adolescents will be examined in chapter 4.



## SCHOOL ATTENDANCE

Relatively little research has been directed toward exploring psychological variables that characterize students with poor school attendance. A handful of studies has examined school attendance in relation to locus of control, but none has explored its relationship to attributional style. Rather, much of the research on school absenteeism has focused on the characteristics of the habitual truant, along with school, peer, and community influences (Truax, 1985). These factors are thought to cause, or to be associated with, school absenteeism. Some authors have grouped these factors into three categories (Birman & Natriello, 1978; Mervilde, 1981), with student-level factors, such as personal characteristics or background, to distinguish from school- and societal-level factors like school organization, teacher skills, peer pressure, or community values.

For the purpose of the present review, the findings of prior research on school absenteeism will be grouped into the following areas: the academic and social aspects of school experiences; family characteristics; school characteristics; peer influence, as well as psychological variables which include self-esteem, alienation from school, and locus of control.

### Academic achievement

Perhaps the relationship between attendance and academic achievement has received most of the attention in the literature. Since the 1920's, class and school attendance has been found to be related in varying degrees to the grades earned (Brown, 1990; Cronin, 1973; Finch & Newzek, 1935; Greene, 1963; Kersting, 1967; Mullin, 1955; Nelson, 1972; Odell, 1923; Rogers, 1980; Voss, 1977; Wise, 1994). Academic achievement has been shown to be a direct function of the amount of time actually spent in the classroom (Lomax & Cooley, 1979; National Center for Education Statistics, 1996; Rieth, Polegdrove, & Semmer, 1977; Rosenshine & Berliner, 1978). The adverse effects of school absences on individual achievement has also been noted by other researchers (Bosworth, 1994; Brokowski & Dempsey, 1979; Monk & Ibrahim, 1984; Rozelle, 1968). The general conclusion is that the more absences a student has, the more adversely achievement is affected.

From studies which compared school absentees and regular attenders, school absentees have generally been found to display patterns of low academic achievement. Greene (1963) presented a study of two urban high schools, one economically advantaged and the other economically disadvantaged. Studying ten percent of the worst and best of each school, he found that low marks, among other factors, were associated with poor attendance. In a study, Burke and Simmons (1965) reported that over three-quarters of the non-attenders were reading below grade level, and almost all of them had been retained in school for two or three years. The majority experienced failure in at least one academic subject, and over two-thirds failed at least one grade. More recent studies have also reported the relationship between school non-attendance and low academic achievement. Herzig (1983) found that truants were significantly lower in grade average than the non-truants. Other studies have also reported that absent students tend to have poorer performance than the normal attendant students in writing, arithmetic and English (Burns, 1983; Ebner, 1984). These findings indicate that school absenteeism and academic achievement are negatively related. This relationship seems to hold for both genders, although in a recent study (Esteves, 1995), this relationship was significant only among boys.

Other studies have reported that students with good attendance tend to get better grades compared to students with poor attendance (Cronin, 1973; Greene, 1963; Mullin, 1955; Nelson, 1973; Rozelle, 1968; Voss, 1977). Conversely, studies which attempt to relate attendance with reading achievement (LaPlace, 1976) and class ranks (Levanto, 1975) have shown that students with higher reading achievement and class ranks had higher rates of attendance. Brimm, Forgety, and Sadler (1978), in a survey of all Tennessee secondary school principals, also found that students with higher grades were less likely to be absent. Furthermore, it has been shown that those schools in which students have higher general levels of academic achievement tend to have higher attendance rates (Anderson, 1973; Baker & Rubel, 1980; Belson, 1975; Bishop, 1980; Reynolds & Murgatroyd, 1974; Rutter, Ouston, Maughan, & Mortimore, 1979; Wilson & Braithwaite, 1977).

The study conducted by Coventry and his associates (1984) is the only study under review that has identified difficulties with academic subjects as a significant determinant of truancy. These authors also found that truancy is more prevalent among

students who regard themselves as having a lower academic status within the school. From the studies cited above, it seems reasonable to see truancy as a response to the lack of academic success, as suggested by Coventry et al. (1984). Apart from academic achievement, the social aspect of school experiences of the truants has also been subject to investigation.

### Social isolation in school

Some studies seem to suggest that the truant's negative experience in failing to keep up academically in school is further aggravated in the social aspects of school life. These studies have been successful in showing that the absentees do not participate to the same degree as regular attenders in the extracurricular activities of the school. White (1961) studied truant boys and found truancy inversely related to participation in extracurricular activities. Cronin (1973) found that attendance was related to athletic participation and club membership in school. Mullin (1955) found that the superior "attender" participated in more extracurricular activities than the poor "attender". Conversely, Herzig (1983) found that the truants were significantly lower in extracurricular activities participation than either regular attenders or excused absentees. McCall (1994) also reported that students who had significantly higher truancy rates did not participate in extracurricular activities.

In another study (Levanto, 1973), it was found that students who did not participate in school activities had higher rates of school absenteeism. Similarly, Brimm, Forgety, and Sadler (1978) reported that those students involved in extracurricular activities were less likely to be absent. The lack of participation in school activities, which suggests that the truants are somewhat socially isolated in school, indicates difficulties in school adjustment.

The above findings indicate that failure in both academic and social aspects of school life is related to truancy. However, there is no clear evidence to indicate that the two are causally related. Although some authors (Pink, 1982; Silberman, 1970) have argued that school failure produces truancy and not the reverse, cross-sectional investigation cannot answer questions about the direction of causality. Greene (1985), among others, also has pointed out that grades or achievement level are not directly

associated with truancy. This being the case, it may be concluded that the observed relationship between poor performance in school and truancy is at best correlational, and that the relationship may be one that is mediated by the presence of psychological variables.

### Self-esteem and alienation from school

Silberman (1970) has argued that repeated failure is related to school absenteeism through the mediating influences of low self-esteem and alienation from contemporary norms and values.

Research findings generally show that school absentees tend to be less confident of their own worth, lower in self-esteem, and more lacking in a clearly defined self-image and sense of identity. Clark (1984) found that truant students have low self-confidence, and are often dubious about their self-worth. Cooper (1984), who studied truancy in England, also noted that many of the truants saw themselves as being lazy, disruptive and not very truthful.

Results of comparative studies provide additional evidence to indicate that truancy and low self-esteem are related. Burns' study (1983) revealed that the normal attendant students performed significantly better than the absent students in self-esteem achievement. Englander (1986) found that truants had significantly lower overall feelings of self-worth than did non-truants. Conclusions drawn from Walberg (1979), Tyerman (1968), Nielson and Gerber (1979) Vedder and Thomas (1979) and Birman and Natriello (1978) also suggest that truancy is linked to depressed self-esteem. Similarly, a recent study (McCall, 1994) found that students who had significantly higher truancy rates showed lower self-concepts. Other recent studies (Cooper & Mellors, 1990; Diebolt & Herlache, 1991) also lend support to the general conclusion.

Only two studies under review did not support the general conclusion drawn from other studies. Ogard (1972) found no difference in self-concept between the truant and non-truant populations in the high school sample under investigation. In Herzig's study (1983), no significant differences were found in self-esteem among regular attender,

excused absentee, whole-day truant, and class-period truant.

Studies which examine the relationship between alienation and school absenteeism lend support to the presence of this relationship. Reid (1981) studied a group of persistent absentees and two control groups to determine the relationship between alienation and persistent absenteeism. He found that significantly fewer absentees were able to make sense out of the events which took place in school and did not feel a part of the school community. Furthermore, the absentees felt that they had a very small chance of protecting their interests when the conflicts occurred between them and the school. Very few of them felt isolated, but yet indicated confusion, not knowing to whom or where to turn for help. In Clark's study (1984), the truants often found that their schools were not running smoothly and that the classroom was a place where they experienced academic frustration. Gow and McPherson (1980) discussed the feelings of truants and found that many felt that school did not have a lot to offer them. In a study using a measure of school alienation (Herzig, 1983), whole-day truants were found to have significantly higher scores than regular attenders and excused absentees.

The above findings suggest that concomitant with the linkage between school failure and truancy is the connection between failure and the psychological attributes of the adolescent. In particular, low self-esteem and feeling of alienation from school can be interpreted as possibly associated with low accomplishments in the school.

#### Family characteristics

The role of family variables in influencing school absenteeism has not been carefully studied. However, some researchers have stressed the vital importance of the home and family in research on school absenteeism (e.g., Tyerman, 1968; Washington, 1973). A view of truancy which centres on the dysfunction of the family has been extended by Robins and Ratcliffe (1980: p. 67) who argue that the socialization effects persist not only with the individual, but survive in later generations:

"... men who were truants in elementary school tended to marry women who truanted in elementary school and ... truancy in either parent was associated with an excess rate of truancy in both sons and daughters, although transmission of truancy to the sons was more striking."

Deficit theories about the contribution of the family to truancy have led some researchers to consider social class of the family in the study of truancy. Various studies have reported a relationship between social class and school absenteeism, with truants being more likely found in families at the lower end of the social scale (Cronin, 1973; White, 1961; Blythman, 1975; Farrington, 1980; Fogelman, Tibbenham, & Lambert, 1980; Galloway, 1982; Greene, 1963; Hodge, 1968; Levanto, 1975; May, 1975; McCall, 1994; Mullin, 1955; Tyerman, 1968; Mitchell & Shepherd, 1980; Hersov, 1960a; Jackson & Getzels, 1959). These families are associated with poor material and housing conditions (Farrington, 1980; Hodge, 1968; ISTD, 1974; May, 1975; Tibbenham, 1977; Tyerman, 1968; Fogelman et al., 1980; Hersov, 1960a; Stott, 1966; Galloway, 1976) as well as a number of social pathologies such as alcoholism, drug abuse, simple neglect, violence, mental and physical illness, and family disorganization (Hersov, 1960b; Morris, 1972; SASD, 1977; SED, 1977, SRC, 1977; Farrington, 1980; Galloway, 1980; ISTD, 1974).

Other studies have also reported that most truants come from single-parent families or broken homes, or homes with disruptive home life owing to parents' unsettled marital status (White, 1961; Elliot, 1975; Hodge, 1968; Levanto, 1973; McCall, 1994; SED, 1977; Tyerman, 1968).

In some studies, the erosion of parental control has been found to be a factor contributing to school absenteeism (Brimm, Forgety, & Sadler, 1978; SED, 1977). Still other studies present the parents as actively colluding with their children's absences because of their hostility to education, or their overindulgence and over-protectiveness (Galloway, 1976; Greene, 1963; Tyerman, 1968; Little & Thompson, 1983; Burns, 1983).

A recent study (Rohrman, 1993) also considered chaotic family life as one of the causes of truancy. McCall's study (1994) summarizes the influence of the family very well. The results of his regression analysis showed that family structure, and the academic beliefs and expectations of parents played a significant role in the rates of school truancy. From the findings, the author argued that truants' anti-school values were provided by their parents, and reinforced by similar values found in their wider working class community. Such an argument seems to echo earlier studies showing an

association of school absenteeism with deprived areas (e.g. Galloway, 1976; SRC, 1977; Tyerman, 1968). To these researchers, the development of truancy is part of the ethos of the deprived area, which according to Brown (1983), could have grown out of a kind of working class fatalism.

However, available findings bearing on this phenomenon appear rather mixed and inconclusive. Some researchers have found little or no direct relationship between social class and rates of truancy (Rutter, Ouston, Maughan, & Mortimore, 1979; Mitchell & Shepherd, 1980). Others (Birman & Natriello, 1978; Clark, 1984; Mitchell & Shepherd, 1980; Jones, 1980; Silberman, 1970) have shown that parents of truants are interested in the education of their children. The findings of the study conducted by Coventry and his associates (1984) also does not support the negative relationship between truancy and socioeconomic status, and parental educational expectations. Indeed, the authors question whether truancy is related to features of students' family backgrounds.

From available evidence, it is difficult to conclude that school absenteeism is related to the lower-status of families. The role of social class in, and its contribution to school absenteeism remains unclear. Most importantly, family-level explanations of school absenteeism can be criticized for neglecting the role and influence of the school and peers.

### School characteristics

Some researchers have noted the importance of the school in any analysis of truancy. Particular attention has been given to organizational and administrative issues.

Structural factors such as the size of the school, organizational structure, the adequacy of its buildings, the turnover of staff and the efficiency of the attendance administration have been linked to rates of absenteeism (Coventry et al, 1984; Birman & Natriello, 1978; Eaton, 1979; Fogelman et al., 1980; Galloway, 1976; Reynolds, 1976 and 1977; Scherer & Bidmeade, 1982; SED, 1977; Wilson & Braithwaite, 1977; Wright, 1976, 1978). For example, Wright (1976, 1978) found that attendance was negatively related to population density and school size, but positively related to teacher ratio. The more dense the population, the larger the school, and lower the teacher ratio,

the lower would be the rate of attendance.

The practices and procedures adopted by schools to monitor and respond to truancy were also found to affect absenteeism rates. Reynolds, Jones, Leger, and Murgatroyd (1980) found that high attendance schools were characterized by lower institutional control, less rigorous rule enforcement, higher involvement of pupils in management and closer parent-school relationships. High-truancy schools were found to be "custodially-oriented", to impose high levels of control and to use inflexible organizational systems to keep the pupils and the parents from close involvement in the running of the school. Coventry and his associates (1984) also found higher rates of truancy in schools which implement intensive practices to enforce school attendance. Karweit (1973) also noted that schools lack acceptable responses to absenteeism, but he questioned whether any short-term "stop-gap" measure, such as counseling, could increase attendance.

Another line of research looks beyond these structural factors and considers the social processes and educational ethos of the school. The affiliation of the school, teacher-student relations, and types of curriculum have been examined.

Coventry et al. (1984) found a relationship between truancy and the affiliation of schools. Specifically, non-government schools were found to be associated with a lower proportion of students regarded as exhibiting frequent involvement in truancy.

The research findings pertaining to teacher-student relations indicate that negative attitudes towards teachers and school authority, and poor relations with teachers and school peers are associated with truancy (Brimm, Forgety, & Sadler, 1978; Coventry et al., 1984; Eaton, 1979; Greene, 1985; Jeter, 1991; Tattum, 1982). Those students who fear teachers or dislike school were more likely to engage in truancy (Galloway, 1982; Mitchell & Shepherd, 1980).

Another group of research relates to curriculum and teaching procedures. Greene (1963) found that inappropriate curricula were among factors that influenced attendance problems. Washington (1973), using the Monney problem checklist in an attempt to diagnose the major problem area which caused school truancy, also found that



curriculum and teaching procedures were among the major factors. Reid (1983) found his persistent absentees to be generally unenthusiastic about most aspects of their school curriculum, in which they could see little purpose. The Rutter's group (Rutter, Ouston, Maughan, & Mortimore, 1979) also found that children were able to make better progress and to have higher levels of attendance in those schools which had a well-planned curriculum and realistic expectations of their children. Wright (1978) was more specific in relating school attendance to the type of courses offered. He found that increases in attendance were noted in urban schools which offered more music courses, work programs, and state required courses as electives. Increases in attendance at suburban schools were noted when work programs were offered, and when more health and physical education courses were offered.

Teacher characteristics were also found to have an influence on attendance. One characteristic is the teacher's teaching values. The research findings of Reynolds' and his associates (Reynolds, 1976; Reynolds & Murgatroyd, 1974; Reynolds et al., 1980) have shown that truancy arises from conflict inherent in traditional teaching values. According to Reynolds, some aspects of traditional teaching, with its insistence on the maintenance of certain rules, and its use of corporal punishment, can lead to conflict between teachers and pupils.

Another characteristic which may contribute to truancy is teachers' lack of the appropriate skills needed to deal with problem students (Greene, 1963). Moos and Moos (1978), in an attempt to relate the social climate of the classrooms to absenteeism, found that the rate of absenteeism was higher in classrooms which rated high in "competition and teacher control" but low in "teacher support". The study indicated that teachers who establish control early and then help the students understand the explicit and implicit rules of the class, tend to have lower absenteeism rates in their classes. Greene's study (1985) also reported a statistically significant difference in truants' and non-truants' perceptions of school climate.

The findings of recent studies (Bosworth, 1994; Cooper & Mellors, 1990; Rohrman, 1993) also point to the influence of the school by suggesting that an unsupportive school environment and truancy are closely related, and that this relationship is mediated by truants' adverse attitudes towards the school.

## Peer influence

Another area which has been reported in the literature as a contributor to school absenteeism is the influence of peers. Platt (1943), in comparing the number of friends to the number of absences from school of a group of 80 sixth and seventh graders, found a positive relationship between number of friends and attendance. However, he noted when a pupil reached a certain point, the relationship became negative and more friends lessened attendance. Wilson and Braithwaite's (1977) research lend support to this negative relationship. In this research, truancy was found to be about three times more likely to occur with peers than alone. Greene's study (1985) also found that truants were influenced by their peers to a greater degree than non-truants.

These findings appear to contradict the "social isolation" view discussed earlier. The truants are not socially isolated; rather, they are subject to peer group pressures to engage in truancy with peers (Bishop, 1980). Birman and Natriello (1978), in explaining the adverse effects of peer group pressure, have noted that absenteeism is likely to be high in schools with a student body that does not value attendance. The findings of Coventry and his associates (1984) seem to support this explanation. In this study, it was found that those students with peers who had negative attitudes to schooling were more likely to engage in truancy than those with peers who appeared more committed to schooling. In other studies, group pressures were found to operate both within the same school and across schools (Carroll, 1977; Mitchell & Shepherd, 1980). These studies found that friends from the same community attending different schools might truant at the same time, indicating that peer group attachments for some youth are not restricted to those observed in a particular school or year level.

Despite the paucity of research literature on peer influence, the evidence reviewed above suggests that truants are more likely to associate with peers whom they regard as not academically successful, in trouble, truants and/or early school leavers. Such peer groups provide reinforcement for involvement in troublesome behaviours including truancy. Nevertheless, caution should be exercised in the interpretation of the influence of peer group pressure, since there is a possibility that peer group difficulties may also be incentives for some students to avoid school.

## Locus of control

The applicability of locus of control to school absenteeism is clearly deducible from studies showing its mediating influence on school attendance.

LaPlace (1976) attempted to explain school attendance behaviour by a set of variables including locus of control, sex, race, I.Q, reading level, curriculum, socioeconomic status, and participation in school activities. A statistically significant relationship was found between school attendance and locus of control as measured by the Nowicki-Strickland Locus of Control scale (CNS-IE). However, locus of control explained only 6 per cent of the variance in attendance behaviour. In the analysis, the interaction between locus of control and reading level emerged as the most important combination of variables for explaining attendance behaviour. With socioeconomic status and participation in co-curricular activities added to the model, the variables still explained only 24 per cent of the variability in attendance behaviour. Another study (Engelberg, 1981) examined the relationship between locus of control and class cutting. A significant correlation between externality and high rates of class cutting was found although, according to the author, the correlation appeared too weak to be meaningful for understanding students who cut classes.

McCarthy (1974) used locus of control and school attendance rates as dependent variables in a study to explore whether these variables would be modified as a result of students participating in a human awareness program. However, the hypotheses were not supported. Along the same line, Arangio (1981) included locus of control as a dependent variable in investigating the effects of individual goal setting conferences and classroom instruction in human relations. It was found that there was a significant increase in subjects' locus of control scores towards a more internal orientation, and that a more internal orientation of locus of control was related to reduced school absenteeism.

From the research findings cited above, it may be concluded that locus of control can be a useful predictor of students' attendance behaviour. However, without taking into consideration of other predictors, the amount of variance explained by locus of control alone was too little to be of practical significance (LaPlace, 1976).

## RESEARCH ON SCHOOL ABSENTEEISM IN HONG KONG

As in other countries, there are indications that locus of control may be associated with school absenteeism in Hong Kong. It has become a salient issue only in the context of the policy of universal, free and compulsory education. Despite increasing public concern, this problem has not been carefully and systematically studied. The only source of preliminary data came from an agency report presented at a seminar to discuss the problem of absenteeism in schools (Yim, 1982). This report is an experiential synthesis based on knowledge drawn from cases in school social work. In an exploratory fashion however, the author identified a number of characteristics associated with school non-attendance. These are described in detail below.

According to this report, many non-attenders are already underachievers in primary school, and with records of school absenteeism and truancy during those years. The difficult and boring school curriculum of the secondary school which the non-attenders experience is seen to further sharpen the sense of competition in school and make school experience even more frustrating and unrewarding to these underachievers. In particular, the use of English as a medium of instruction is a handicap, especially for those who come from primary schools where Chinese has been the medium of instruction.

Another problem is the infiltration of triad activities into the school, in which many non-attenders are involved. The lack of school facilities and extracurricular activities both in quantity and quality also makes it impossible for the young person to develop a sense of identity through satisfaction and achievement from group activities.

The non-attenders are mostly found in families of lower socioeconomic status. Their parents show a general pattern of low educational attainment, with low occupational status and unstable pattern of employment. In most cases, both parents are semi-skilled and unskilled workers who work long and irregular hours, leaving their children by themselves for at least part of the day and spending little time with their children. Many parents cannot read or write because they have never received any formal education. Only some have attained the level of primary school, but very few have attended secondary school. Furthermore, the siblings have a rather low level of educational

attainment, and most of them also have a history of absenteeism and truancy.

Furthermore, there is a lack of mutual understanding among family members. Parent-child communications are particularly lacking. Very often parents do not know, or do not even bother to know about their children's experiences in school. Relationships at home are generally poor, and in some families, parent-child relationships are so poor that some children have had histories of running away from home.

Negative social experiences in school and peer influence were not mentioned in this report. Although the non-attenders are likely to have been exposed to pro-dropout experiences, whether peers as a source of such influence is not known.

Despite these findings, it seems premature to conclude that the characteristics identified are unique to the non-attenders since no comparison has been made with the regular attenders. Furthermore, the quality of the report is difficult to judge for the lack of information on the number of cases studied, the procedures of the study, as well as conceptualization.

### SUMMARY

Research on school truancy is woefully lacking in Hong Kong. Despite the numerous investigations conducted in the West on school truancy, a paucity of the research has addressed the orientation of locus of control of the truants, and no study has examined their attributional style. To take into account locus of control and attributional style in the explanation of truancy is important, as an imbalance of demands and resources in the cognitive area may account for the feelings of low self-esteem found among the truants, which could also result in their beliefs about being a failure. Related to this process is the possible evolution of "learned helplessness," the belief that one's actions essentially are unrelated to the consequences that are experienced.

While previous empirical work has contributed usefully to the present study by suggesting that negative family and school experiences are associated with school

absenteeism, it is also important to examine these experiences in relation to locus of control and causal attributions. Negative social experiences can be psychologically damaging to students, particularly for those who have experienced prolonged stress, from primary school to secondary school. Facing a set of demands with insufficient resources some of them may respond in ways that are harmful or maladaptive. One of the "miscoping" responses is truancy. This suggests that the relationship which exists between children and their environment must be taken into account in the study of school truancy. As Vygotsky (1994b: p. 339) points out, "we can only explain the role of the environment in child development when we know the relation between the child and his environment". In this connection, the relations among school children's family and school experiences, their locus of control and their attributions were examined as one of the major goals of this thesis.

The studies under review also show that it is difficult to make a clear distinction between truancy and absenteeism. While some researchers have presented a clear definition of truancy (e.g. White, 1961; Ogard, 1972; Galloway, 1983; May, 1975), others do not differentiate between truants and students with high, but excused, rates of absenteeism (e.g. Cronin, 1973; Greene, 1963; Mullin, 1955; Levanto, 1973).

Researchers on truancy tend to adopt definitions which conceive truancy as non-attendance at school when attendance is expected by law and/or the school. For example, Robins and Ratcliffe (1980: p. 68) referred to truancy as "absence from school without an acceptable reason, whether or not the parent know and approve." However, some definitions appear more restrictive. For example, Galloway (1982) and Hersov and Berg (1980) referred to truancy as absence from school without the parents' knowledge or approval. Other absences were those for which parents had claimed "generally" know their child's whereabouts during absences from school (Galloway, 1983).

In defining the truant, the definitions are often based on what is considered as excessive absence. However, the definitions reflect considerable variation from system to system in the frequency of absences being specified as a means of determining legally when to consider a student a truant, as Good (1973) suggested. In Ebner's study (1984), truancy was defined as at least five full day unauthorized absences occurring

within one academic year. Little (1983) defined habitual truant as one evidenced by 10 unexcused absences during the academic year. In Englander's study, truant was evidenced by ten unexcused absences during the previous semester (Englander, 1986). Other variations include definitions which exclude parentally condoned absences (Tyerman, 1968) and those where they are included (Pack, 1977; Galloway, 1985).

Thus far, the review of research studies has shown that psychological variables and school absenteeism are connected. This observation lends support to the selection of locus of control and attributional style in the study of school truancy behaviour. Attention will next be focused upon the discussion of these psychological variables.

## CHAPTER III

### ATTRIBUTIONAL THEORY

The present thesis is based on attributional theory as the central interpretive framework for the study of school truancy. In this chapter, the constructs under investigation in the present study which are related to attributional theory will be examined. A review of research literature pertaining to these constructs, as well as their relations to academic achievement will also be undertaken.

Attributional theory is an approach to the study of how and why people explain their behaviour and events. Two constructs central to attributional theory are "locus of control", and "causal attributions". They are both cognitive constructs that explain variations in behaviour and the action-outcome relationship (Peterson, Maier, & Seligman, 1993). Two attributional models have received much attention. One is Weiner's (1986) attribution theory of achievement motivation and the other is the Abramson-Seligman-Teasdale attributional reformulation of learned helplessness theory (Abramson, Seligman, & Teasdale, 1978).

Before turning to the attributional models, the "locus of control" construct will be examined first.

### LOCUS OF CONTROL

#### Internal versus external locus of control

Locus of control is a cognitive construct proposed within Rotter's (1966) social learning theory. Central to this theory is the idea that individuals respond subjectively to their environment on the basis of their specific learning history and experience. Rotter's social learning theory is based on an integration of the stimulus-response and cognitive schools of learning.

The stimulus-response school maintains that an individual's specific behaviour is related to the reinforcement he receives from interactions with the environment. As an individual reacts to certain environmental stimuli, he receives reinforcement. This reinforcement, which can be positive or negative, serves to temper psychological



expectancy, therein shaping behavioural responses. An individual's behaviour, therefore, is the result of learning from his interactions with the environment and the reinforcements he received (Achenbach, 1974; Lindgren, 1967; Mum, Fernald, & Fernald, 1969).

The cognitive school generally claims that an individual's behaviour is related to his cognitive processes. The higher cognitive processes are more than associations patterned through a series of reinforcement contingencies. In response to certain environmental stimuli, an individual's behaviours are also shaped by his cognitive assimilations. An individual's behaviour, therefore, can be explained in terms of the way he applies various signs, symbols, concepts, and/or hypotheses, which are in the realm of his awareness in responding to forces in the environment (Lindgren, 1967; Mum et al., 1969).

According to Rotter (1966), an individual develops through learning a set of generalized procedures for interacting with a variety of environmental situations. These interactions result in the occurrence of specific behaviour and/or events which the individual uses as determinants of interactions and responses in the development of cognitive constructs. As the learning process is on-going and progressively changing, the individual encounters and/or creates new situations. In applying these cognitive constructs to new situations, the individual acquires new information as to the effects of different behaviours and/or events, which he cognitively assimilates and applies to future situations (Achenbach, 1974; Lindgren, 1967; Mum et al., 1969).

Central to Rotter's view is the assertion that the occurrence of a specific behaviour is determined not only by the nature or importance of the goals or reinforcement, but also by the individual's anticipation or expectancy that these goals will occur (Rotter, 1966). Also, an individual's behavioural response will be generalized from one situation to another if his reinforcement expectancy for the two situations is the same. Successful past experience with a given behaviour will lead the individual to expect that it will work in the future. Failure will decrease the individual's expectancy that the behaviour will achieve a given goal. Expectancies for the outcomes of behaviours are learned, and they depend upon the degree of success or failure the individual has enjoyed in the past. Changes in expectancies can be brought about by introducing new experiences that alter

previous patterns of success or failure.

In Rotter's formulation, the perceived value of the reinforcement, specific psychological situation, and the expectancy of reinforcement are of equal importance and interrelated. The perceived value of the reinforcement, which the individual expects to receive in a given situation, directly influences his behaviour. Psychological situations influence both an individual's perceived value of reinforcement and his expectancy of reinforcement; consequently, both affect behaviour. An individual's expectancy for reinforcement is a result of previous experiences with certain behaviours and their outcomes, resulting from involvement in a psychological situation, and tempered by the perceived value of said reinforcement (Lefcourt, 1967, 1982; Rotter, 1966, 1975).

The expectancy variable was explained by Rotter (1966, 1972, 1975) as a generalized expectancy variable that operates across various situations. In other words, an expectancy is determined not just by the individual's objective past history of reinforcement but also by expectancies generalized from other situations. Expectancies are "the probabilities held by the individual that a particular reinforcement will occur as a function of a specific behaviour on his part in a specific situation or situations." (Rotter, 1966: p. 4)

Rotter maintained that consequences of an individual's behaviour establish an expectancy that the same consequences will result from similar behaviour in the future. If similar consequences consistently follow, expectancies are strengthened and become generalized across many situations. In fact, the situations to which an individual's expectancies are generalized are perceived by the individual as similar because he sees these situations as presenting similar problems to be solved. For example, the behaviour of looking for alternative solutions (Schroder & Rotter, 1952) might be regarded as being dependent on a learned, generalized expectancy that problems can be solved by the technique of looking for alternative solutions. This would be independent of the reinforcement or needs involved in the given situation.

An example of such a generalized expectancy is the degree to which individuals believe in the locus of reinforcement - whether they believe that what happens to them

is dependent upon their own behaviour and is thus controllable by their actions, or is contingent upon forces beyond their control and/or occurring independently of their own actions such as luck and powerful others (Rotter, 1972; Rotter, Chance & Phares, 1972).

The two extremes of belief about the locus of reinforcement define the endpoints of Rotter's internal versus external locus of control continuum. The internal end of the continuum reflects an individual's generalized expectancy to perceive the successful attainment of a desired reinforcement as contingent on his/her own behaviour, whereas the external end of the continuum reflects an individual's generalized expectancy to perceive the successful attainment of a desired reinforcement as primarily controlled by forces outside or independent of his/her control.

#### Characteristics of persons with "internal" / "external" locus of control

Literature and research on locus of control (e.g., Duffy, Shiflet, & Downey, 1977; Joe, 1971; Lefcourt, 1982; Ramanaiah, Ribich, & Schmeck, 1975) have identified and compared persons with an internal orientation of locus of control with those with an external orientation. As persons with an internal orientation believe that rewards are contingent upon their own behaviour, they will be more confident that they can bring about changes in their environment and in their own behaviour. Because of their belief that they are in control of their own destiny, these persons are more independent, effective, achieving and dominant. They are more likely to have high aspirations and persistence, to participate in political activity, to be resistant to persuasion, to exert influence over others, and to be independent. On the contrary, persons with an external orientation, who do not anticipate such a contingency between their actions and events in their life, or believe that events in their life are not under their control, but under the control of outside forces, will feel comparatively powerless to produce change. Because of their feeling that they have little control over their environment, they are unable to take effective remedial action, and are more likely to feel high levels of anxiety and refusing to accept personal blame. They are also lacking in motivation to achieve difficult goals and have few aspirations, since their efforts are seen as bearing little or no relationship to outcome. Comparisons between persons with an internal orientation and those with an external orientation also find that persons with an external orientation

persist in chance determined tasks, show signs of irresponsibility on their performance, and neglect to improve their performance after failure; and those with an internal orientation place high values on and persist in skill determined tasks, approach these tasks cautiously, and raise their expectations and aspirations in these tasks after each success (e.g., Joe, 1971; Lao, 1970; Midlarsky & McKnight, 1980).

The importance of locus of control expectancy for school attendance behaviour is supported by investigations showing that adolescents identified as individuals with an internal orientation respond more adaptively to the demands of their school environment than adolescents identified as individuals with an external orientation.

#### Locus of control and school adjustment

Franklin (1963) examined the role of locus of control in adolescent's adjustment to school. He found that locus of control was related to future educational and vocational plans, study attitudes, and grades. Later studies also have shown that internal locus of control has a mediating influence on achievement behaviours among high school populations (Ferguson & Kennelly, 1974; Jorgensen, 1972; Friend, 1973; Nowicki & Strickland, 1973; Nowicki & Roundtree, 1971; Nowicki & Segal, 1974).

Still other investigations have explored the relationship between locus of control and academic achievement of school-age youngsters. Crandall, Katovsky and Preston (1962) used several personality measures to predict achievement behaviour in free-play activities among children in the first, second and third grade. Locus of control was found to be more highly correlated with achievement than any of the other predictor variables. Children's belief that they rather than other people are responsible for their intellectual-academic success and failure was found to be significantly correlated with achievement in reading and arithmetic for boys, with internal locus being associated with higher achievement. Other investigations (Coleman, Campbell, Hobson, McPhartland, Mood, Weinfield, & York, 1966; Willey, 1978) also examined the relationship between children's locus of control and academic achievement. These investigators found that academic achievement was significantly related to locus of control, with internality being associated with higher achievement. Other studies (e.g. Nowicki & Roundtree, 1971) also found that internal locus of control was significantly

related to higher grade point averages.

McGhee and Crandall (1968) reported on two studies which investigated the relationship between locus of control and academic competence among school-age children. The studies showed that children in grades three through twelve who were more highly internal consistently attained higher scores on achievement tests than children who had an external locus of control. Similar findings were reported in studies by Coleman et al. (1966); Walden and Ramey (1983); and Garner and Cole (1986). A more recent study also found that locus of control influenced both performance and confidence of learners (Klein & Keller, 1990).

Other research literature on locus of control also suggest that the relationship between internality and academic learning and performance is attributable to certain characteristics of individuals with an internal orientation. As reported, these individuals avail themselves of information more than persons with an external orientation because they believe that they can act on their own behalf and therefore need more information (Seeman & Evans, 1962), have better study habits and more positive academic attitudes (Ramanaiah, Ribich, & Schmeck, 1975), and search harder for information (Fischler, 1986). A review of studies on locus of control and academic achievement undertaken by Bar-Tal and Bar-Zahor (1977) also suggests that persons with an internal orientation achieve more because of their greater persistence, effort, and better use of task-relevant information. A more recent study found that perceived control influenced academic performance by promoting or impeding active engagement in learning activities (Skinner, Wellborn, & Connell, 1990).

While an abundance of empirical findings support the relationship between locus of control and achievement, inconsistent results are also found. For example, Brown (1980) investigated the relationship between locus of control and academic achievement using 50 non-delinquent and 50 delinquent boys and girls fifteen years old. Each group was given the Peabody Vocabulary Test, Nowicki-Strickland Locus of Control Scale for Children, and the Wide Range Achievement Test in reading, spelling, and arithmetic. Brown reported that the correlations between locus of control and academic achievement for the non-delinquent group were significant, but the correlations were not significant for the delinquent group. However, the two groups were not compared on

locus of control and academic achievement, and the tables of correlations were not included in the report. In the absence of the relevant data in this study, it is difficult to assess the validity of the research findings. Nevertheless, the following is offered as a plausible explanation of the inconsistent findings. For the non-delinquent group, academic achievement determines their perception of internal-external control for the value they place on academic competence. In this group, children with low academic achievement may be more prone to blame external factors for their failure; whereas those with high academic achievement may be more likely to believe that rewards are contingent upon their own behaviour. On the other hand, delinquent children, noted for their weak bonding to school and low educational aspirations (e.g., Hirschi, 1972), are more likely to be low academic achievers and to believe academic success is not within their own control. The research of Farley and Sewell (1975) lend support to this expectation, as the delinquents were found to have lower achievement motivation and a more external locus of control than non-delinquents. If the delinquent children in Brown's study were homogeneous and typically externals and low achievers, the low within-group variations in locus of control and academic achievement could have rendered the relationship insignificant.

Joe (1971) and Lefcourt (1982) both concluded, after a review of research, that the majority of studies suggest a positive relationship between locus of control and achievement despite the wide range of assessment used. In response to the inconsistency of findings however, Lefcourt (1982) pointed out that locus of control and achievement simply could not be seen in terms of a simplistic one to one relationship and that a host of other factors associated with achievement must be taken into account. Among these variables, social, cultural and parental factors may possess greater strength in accounting for achievement behaviour than locus of control. To this end, Lefcourt (1982: p. 141) emphasizes that locus of control can only be seen as "a circumscribed self-appraisal" which human beings perform to assess their chances of gaining control over specified events and not as an omnibus trait like intelligence that may be used to explain almost all aspects of human behaviour. As "opportunities or restrictions present in given situations often obtain greater salience" than locus of control in determining the occurrence of certain behaviours (Lefcourt, 1982: p. 142), it is suggested that locus of control must be used along with other situational factors to explain the phenomenon under investigation.

## Predictive values of locus of control on people's attitudes and behaviours

Literature reviews on the predictive value of locus of control on people's attitudes and behaviours also suggest that the use of a simplistic, internal-external dichotomy has limited power in predicting human behaviour (e.g., Lowery, 1981; Rodin, 1981). Other investigators have also observed the shortcomings of the locus-of-control construct and researches in understanding human behaviour. Weiner, Nirenberg, and Goldstein (1976) express the view that the predictability of locus of control on expectancy shifts following success and failure in achievement situations is supported by experimentally-manipulated studies and not by correlational studies. Reviewing those studies which did not obtain the behavioural patterns of the "internals" and the "externals" as predicted in the theory (e.g., Gurin, Gurin, Lao, & Beattie, 1969; Shaver, 1975) indicates that locus of control may not exist as a unitary dimension. In support of this view, the Weiner group state that the attribution of causality results from an interaction between locus of control and stability (Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1971). In this interaction, the causes (i.e., ability, effort, luck, and task difficulty) for success and failure are derived. Ability (skill) is perceived as an internal and stable cause; effort, internal and unstable; luck external and unstable; and task difficulty, external and stable. Examining locus of control in terms of these causal perceptions, Weiner et al. (1971: p. 96) point out that "the locus of control and stability dimensions have frequently been confounded in past research". Consequently, it becomes impossible to "examine independently the motivational consequences of ascriptions to these two dimensions of causality" (Weiner et al., 1971: p. 97).

## Relevance of locus of control to the present thesis

The locus of control model posits achievement behaviour as a function of one's perception of the degree of controllability one has in an achievement situation and argues that internally-oriented individuals are more achievement oriented than externals due to their beliefs that they have control over the outcome of their behaviour. The relationship of locus of control to achievement suggests that locus of control is an important variable for the present study on school truancy, for poor school attendance has been found to be associated with poor grades and course failure (Cronin, 1973; Greene, 1963; Mullin, 1955; Nelson, 1973; Rozelle, 1968; Voss, 1977). A small number

of studies have also reported that locus of control and school attendance are related (Arangio, 1981; Engelberg, 1981; LaPlace, 1976). However, limitations of locus of control as a predictor of human behaviour have been noted and empirical findings in conflict with the postulations of the theory have also been found.

Lefcourt's suggestion (1982) points out that locus of control must be used along with a host of other variables to thoroughly explain achievement behaviour. The present thesis, which aimed to examine the relation between locus of control and school truancy, must include the cultural, family and school factors which are also associated with achievement. Consistent with Lefcourt's view, some empirical evidence is available to indicate that locus of control is culturally specific. It has been found that cultures which encourage independence and individuation (e.g., white Americans) are likely to have internally-oriented individuals; and cultures which value group goals and affiliation (e.g., Mexican Americans) are likely to have externally-oriented individuals (e.g., Scott & Phelan, 1969; Hsieh, Shybut, & Lotsof, 1969). According to these researchers, the locus of control model can only explain achievement behaviour of those populations in which independence and individuality are fostered. Added to this cultural interpretation of locus of control is a group of findings which suggest that the development of locus of control is related to parent-child relationships. Specifically, parental nurturance, sanctioning, the granting of personal freedom, and the presence of consistent firm control have been found to be the elements for the development of internal locus of control. Rejection, deprivation of privileges, overprotection, and excessive use of punishment have been noted as the elements that foster a belief in external control in children (e.g., Katkovsky, Crandall, & Good, 1967; MacDonald, Jr. 1971).

Another implication of the literature review is that, to improve the locus of control model and to enable it to explain achievement behaviour more effectively, an attributional analysis approach to achievement is called for (Weiner & Kukla, 1970). The characteristics of persons with an internal orientation suggest that they are more interested in school and more goal-oriented, and would not risk failure and jeopardize their chances of attaining academic success. Logically, individuals' locus of control orientation should give a better understanding of their motivation from the perspective of goals and goal-oriented behaviour. The importance of locus of control for school truancy then becomes even more evident when school attendance is conceived as a



motivational problem as suggested by Bouverne-De-Bie (1991).

In sum, the review of research on locus of control has suggested that a study of school truancy must examine the relations among locus of control, causal attributions as well as the cultural and social factors which play a crucial role in determining the development of locus of control in children.

### WEINER'S ATTRIBUTION THEORY OF ACHIEVEMENT MOTIVATION

Weiner's (1986) attribution theory of achievement motivation seeks to explain achievement motivation in terms of locus of control and causal attributions.

Psychologists' interest in "causal attributions" can be traced to Fritz Heider's (1958) work which called for the study of the way that people understand the causes of their own behaviour and the behaviour of others. According to Heider, a concern with causality is a basic aspect of human nature. When people make sense of behaviour, they do so in terms of causes. This would allow them to predict and control future events. Heider's perceptual emphasis further suggests a fundamental distinction between internal and external causes within the individual's interpretations of events. However, whether a cause of an event is internal or external depends upon the perspective of the individual who is experiencing it.

Causal attributions and locus of control are related but distinct concepts. Both are cognitive constructs central to the explanation of variations in behaviour and events. Both are central to the understanding of variations in the action-outcome relationship. Both may influence the vigour or passivity with which people live. The difference is that causal attributions are judgments about the causes of events; whereas locus of control is a belief about rewards and punishments. Empirically the two constructs may be independent. For example, an individual with an internal orientation of locus of control may offer external causal explanations. Locus of control is only one dimension of causality in an individual's beliefs and behaviours.

Unlike the locus of control model which conceives the perception of the causal relationship between behaviour and reinforcement as a determinant of behaviour,

attribution theory postulates the perception of how past events and behaviours were caused as the determinant of the interpretation and occurrence of a behaviour and event. Attribution theories postulate attribution of causality as a cognitive process or a process which occurs as a part of the human nature. In this process, the perceiver actively processes and interprets all possible information to construct a causal interpretation or common-sense explanation on the actor's behaviour, to make inferences about the actor's underlying personal dispositions or stable characteristics, and to predict the actor's behaviour in similar or other situations. A result of this process is to enable the attributor to derive a guide to organize the social environment, or to plan actions, and to gain predictability and controllability over the environment.

Weiner's attribution theory of achievement motivation is predicated upon the belief that individuals evaluate their achievement as either success or failure and view their achievement outcomes as mainly due to their ability, effort, task difficulty and luck. In his view, there are other dimensions of causality in an individual's beliefs and behaviours apart from locus of control.

#### The two-dimensional model

In 1971, Weiner added to the distinction between internality versus externality the dimension of stability. In this dimension, he distinguished between stable versus unstable causes. The result was a two-dimensional model with locus of control and stability proposed as an explanation of the cause of individual attribution (Weiner et al., 1971). The locus of control dimension is concerned with whether a cause is related to factors within the individual or the external environment; whereas the stability dimension is used to assess the impact on the individual's expectancies for future outcomes.

The Weiner group (Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1972) classified ability, effort, luck and task difficulty according to the internal-external (locus of control) and stable-unstable (stability) dimensions. Ability is an internal stable cause. Seeing perceived ability at a given task as a function of the degree of past success at the same or similar tasks, Weiner et al. (1972: p. 99) argue that "consistency and generality of performance are salient cues for ability attributions". Effort is an internal unstable

cause. Because effort may vary between tasks and can be conceptualized as a characteristic of a person's underlying disposition, Weiner et al. (1972: p. 99) comment that "the conditions necessary to attribute an outcome to effort are somewhat more difficult to determine". According to Weiner, Heckhausen, and Meyer (1972), muscular tension, task persistence, tendency to approach achievement activities, increased performance in the face of failure, and heightened motivation at tasks of intermediate difficulty are indicators of effort. Luck is an external unstable factor. Weiner et al. (1972) state that attributors must infer an event from its pattern of prior reinforcements before they can attribute an event to luck. This view is extended to suggest that the more random or variable the pattern of outcomes, the higher the probability that luck will be perceived as a causal influence. Task difficulty is an external stable factor. Generally, the difficulty level of a task is judged according to the task's norm. Performance that is consistent with the norm will be attributed to the nature of the task and performance that is not consistent will be attributed to the individual (Frieze & Weiner, 1971). Classifying these factors according to the locus of control and stability dimensions, most researchers (e.g., McMahon, 1973; Weiner & Kukla, 1970) find that expected performance outcomes are attributed to ability, unexpected outcomes to luck, success to internal factors (i.e., ability and effort), and failure to external factors (i.e., luck and task difficulty). In view of the way causal judgments are formed in achievement situations, Weiner et al. (1972) indicate that causal factors must be identified according to the attributional dimensions so as to observe how achievement behaviours are perceived and attributed.

The relationship between performance expectancy and ability/luck attributions has generated considerable investigations. Analyzing ability and luck in terms of the locus-of-control and stability dimensions and examining how expectancy may be attributed to these causal factors, Eiser (1982) shows that expectancy is determined by the stability, rather than the locus-of-control, dimension. With respect to the difference in the attribution of causality between expectancy confirmation and disconfirmation, Feather (1969) explains that because expectancies are predictions of one's performance based on prior experiences in related situations and on the estimates of one's ability, it becomes natural that a person would attribute expected outcomes to ability and/or to factors that give rise to similar outcomes in the past and attribute unexpected outcome to luck or unstable factors such as effort. To substantiate Feather's (1969) explanation,

McMahon (1973: pp. 112-113) comments that "the greater the disparity between the subject's expectancy and his actual outcome, the greater weight he gives to effort and luck as causal factors and the less weight he gives to ability". Indeed, as each expectancy is confirmed, a new expectancy is formed; and factors leading to the previous expectancy confirmation become the causal elements for subsequent expectancies (McMahon, 1973). In sum, performance expectancies are attributed to ability and luck; and in these factors, the stability dimension occupies a crucial role in the process of attribution.

The tendency to attribute success to internal factors and failure to external factors suggest that human beings are more willing to accept causal responsibility for their positive outcomes (e.g., success) than for the negative outcomes (e.g., failure). An examination of this tendency indicates that self-attributions in the case of success serve to enhance one's self-esteem and maintain the positive affects such as pride that may result from success. Conversely, external attributions in the case of failure serves to protect one's self-esteem and alleviate some of the negative affects such as shame that may arise from failure (Weary, 1980; Harvey & Weary, 1984).

Although the striving for self-enhancement appears to be the underlying motive for making internal attributions and self-protection for making external attribution in achievement situations, empirical findings indicate that such a tendency of accepting credits for success and rejecting responsibilities for failure may change across situations. Indeed, considerable reversals of such a trend have been obtained from several investigations (e.g., Arkin, Appleman, & Burger, 1980). With respect to these reversals of the trend, Bradley (1978) comments that seemingly counterdefensive attributions will be made when people attempt to make themselves appear to be modest about their abilities so as to gain social approval and/or avoid public embarrassment resulting from others' invalidation of a self-enhancement that is too positive. Consequently, some characteristic patterns of causal attribution have been gathered from investigations on the relationship between performance outcomes and internal/external attributions in achievement situations.

First, the tendency to make high self-attributions following success and low self-attributions following failure is most frequent in situations where the performance

is evaluated by peers or by those whose standing is similar to or lower than that of the actor (e.g., Weary, 1980). Indeed, the relationship between affect and self-attributions for positive and negative performance outcomes is clearly observed in these situations. By asking undergraduate students to make attributions about their performances which were observed by someone with a lower standing, Weary (1980: p. 355) reported that while students with positive outcomes reported more positive affect and greater feeling of egotism than students with negative outcomes during performance, “these differences in levels of affect were more pronounced during the post performance period”.

Second, the tendency to become modest about one’s abilities and to make self-effacing, rather than self-enhancing, attributions about one’s positive performance outcomes increases in situations where the individual knows the performance will be evaluated by experts or in situations where social pressure is intense. In a study which asked a group of high social anxiety and a group of low social anxiety subjects to play the role of a therapist or an assistant, Arkin, Appleman, and Burger (1980) found that most of their subjects tended to portray themselves in a modest fashion and made less self-presentation attributional bias when they were informed that their performance would be evaluated by a group of experts. In response to the finding, Arkin et al. (1980: p. 34) conclude that the unflattering modest attributions of their subjects “are in part a reflection of self-presentation, or a desire to maintain or create a favourable impression”.

Third, people tend to make causal attributions about their performance according to the demands that are expected of them from society. For example, by pointing out the success and failure of the teachers’ teaching method in a simulated teaching experiment, Tetlock (1980) found that teachers tended to take responsibility for failure but attributed success to their students. With respect to the counterdefensive attributions of the teachers, Tetlock (1980) specifies that the obligations and duties that one has to keep for one’s role or job can be a basis for causal attributions. Since teachers are expected to transmit knowledge to their students, the claiming of causal responsibility for their students’ failure but attributing success to their students becomes a way by which teachers can create an image that they are responsible individuals. Observing these three trends as derived from causal attribution research, Kelley and Michela (1980) express the view that attributions constitute an important part of human life. They enable human

beings to present themselves in a favourable manner and to positively relate their activities and themselves to others. By doing so, they manage to enhance or protect their self-esteem, maintain social acceptance, and avoid any embarrassment that may occur in situations that are beyond their control.

### The three-dimensional model

In 1979, controllability was added to the two-dimensional model as a third dimension of causality in the analysis of individual attribution and achievement behaviour (Weiner, Russell, & Lerman, 1979). This dimension is concerned with whether or not the individual believes his performance as being due to factors beyond his control. Further, controllability is conceived as independent of causal locus. Some internal factors, such as mood, fatigue, and ability, may be perceived as uncontrollable whereas others, such as effort and persistence, may be perceived as controllable. In other words, internal factors could be classified as internal and controllable or internal and uncontrollable.

With controllability added to the model, Weiner's attribution theory of achievement motivation has become a three-dimensional model of causality with locus, stability and controllability as variables to explain an individual's beliefs and behaviours. These variables are bipolar concepts which can be combined into eight possible conditions. As a result, each cause can be classified within one of the eight possible cells. With four causes, the result is a three-dimensional and four category model of causal attribution.

The attributional model of achievement motivation suggests that individuals make different attributions for their successes and failures. Individual differences can be examined at each stage of the model, namely subjective evaluation of achievement outcomes, causal attributions for success and failure, and expectations for future success.

One of the crucial elements of the attribution process is its cognitive aspect - that is, individuals' subjective evaluation of achievement outcome as success or failure. Weiner, Russell, and Lerman (1978) suggested that the general reaction to an achievement outcome was based on whether an individual perceived it as a success or failure.

Subjective evaluation of achievement outcome is seldom identical to objective achievement outcome. Most probably, before taking an achievement-related task, individuals may set their own target of what they are going to achieve in the task. When they learn of the task outcomes, they will subjectively judge the outcomes as success or failure on the basis of what they have targeted for. A student who obtained a good grade on a test may feel disappointed and consider that he/she failed in the task simply because he/she expected that he could do even better. Thus subjective evaluation of outcome as success or failure can be influenced by the discrepancy between expected and actual performance, and may affect subsequent measurements of causal attributions.

Perceived success or failure would lead the individual to cognitively appraise his/her own performance by identifying causes located in the three-dimensional space. How the individual explains his/her success or failure will have different effects on his/her expectancies of success, affective reactions to achievement outcomes and motivation to persist in similar situations. Weiner (1986) takes note of the importance of the psychological consequences of each dimensional property of attribution. According to him, the locus dimension affects feelings of pride or shame; the stability dimension associates with changes in expectation of success and failure and also influences such affective reactions as feelings of hopelessness; and the controllability dimension relates to evaluation of others and sentiments including feelings of gratitude, guilt or pity.

Deaux (1976) proposed that the overall pattern of individual differences in causal attributions is based on a general expectancy model. When the expectancies differ, attribution patterns will differ as well. Those who expect to succeed will attribute their success to stable and internal factors (e.g. ability) but use unstable, external reason (e.g. bad luck) for their unexpected failure. On the other hand, those who do not expect to succeed will attribute their failure to stable and internal factors (e.g. ability) but use some temporary and unstable factors (e.g. luck) as an explanation for their unexpected success.

Apart from being a result of interpretation of past consequences, causal attributions are linked to expectancy and future behaviour. Theoretically, attributions to stable factors lead to the expectation that future performance will closely match past ones whereas attributions to unstable factors reduce the strength of such link. Nicholls (1975)

confirmed that attributions did parallel and help account for individual differences in expectancies. Specifically, attributions to stable and internal factors (e.g. ability) are associated with high expectancies after success and with low expectancies after failure (McMahan, 1973). On the contrary, attributions of success or failure to unstable, external and uncontrollable factors (e.g. luck) are associated with low expectancies (Forsyth & McMillan, 1981; Yamauchi, 1988).

The three-dimensional and four-category model of causal attribution however, is considered by some authors as being too restrictive. The predetermined use of only four causes limits the understanding of the causal perception of success and failure in real situations and the antecedents which determine the use of the particular causes (Bar-Tal & Darom, 1979). More recently, Omura, Kambara, and Taketsuna (1990) also criticized that the commonly accepted four factors do not necessarily cover all conceivable and significant causes in explaining academic performance. Being designed in laboratory settings, the factors may be irrelevant and meaningless in real-life situations.

Moreover, the dimensional-categorical classification is not without ambiguity. The relationship between each causal factor and causal dimension may not be as clearly defined as expected (Omura, Kambara, & Taketsuna, 1990). For example, test difficulty may be evaluated as stable or unstable by the respondents. If teachers give tests of the same level of difficulty in real test situations, the task situation would likely be perceived as stable. On the other hand, if tests are of different levels of difficulty, the task situation would likely be perceived as ever-changing and unstable.

Weiner (1983) was fully aware of some of the methodological pitfalls in attributional research. He admitted that perceived causes and dimensional classification very much depend on the phenomenology of the respondents. Hence, he recommended that the labels of the causal factors should be adjusted to suit the situations. In addition, researchers must be certain that the intervening steps in the theory are rightly represented in the particular situation under study.

As implicit in the attributional models of achievement motivation, individuals with internal orientation of locus of control will show high expectancies for success if they experience success and attribute their success to internal, stable and controllable factors.



On the other hand, they will not show high expectancies for success if they experience failure and attribute their failure to internal, stable and uncontrollable factors. The use of internalization may have different effects on achievement motivation when attribution patterns differ.

Individuals cognitively appraise their own performance by making attributions about their successes and failures. These attributions will affect their expectancies of success, which in turn, will influence their motivation to persist in similar situations. There are two attributional variables in achievement motivation: ability and effort. Ability is generally viewed as characteristic of the self and does not change much, while effort is regarded as a factor that can be changed and controlled.

When individuals attribute their successes to high ability, it engenders high expectancies of success. With failures, they will attribute to self or environmental factors that can be changed and controlled, such as insufficient effort or an extremely difficult task. These individuals develop mastery-oriented attributions, and are willing to approach challenging tasks and maintain the enthusiasm to learn disregarding successes or failures.

On the other hand, when individuals attribute their failures, but not successes, to ability, they will develop attributions of learned helplessness (Dweck & Elliott, 1983; Dweck, Davidson, Nelson, & Euna, 1978). These individuals have little confidence in themselves and develop low expectancies of success. It has been shown that children who attribute their poor performance to lack of ability also show lower expectancies to success (Parson, Adler, & Kaczala, 1982). In the face of obstacles to success, these children see themselves as hopelessly inadequate to surpass them (Diener & Dweck, 1978, 1980). Consequently, their performance deteriorates quickly. Poor performance and feelings of lack of control give these children confirmation of their failure-related explanations.

Attributions of failure to external factors may protect them against fear of failure by taking away responsibility and feelings of shame for failure. This is a self-protective mechanism to enable an individual to maintain high self-esteem. The reduced sense of personal responsibility, through attribution of failure to external causes, may maintain

positive self-esteem. On the contrary, attributions of failure to internal factors, ability in particular, may induce fear of failure and heighten the sense of personal responsibility and feelings of shame as well as lower self-esteem.

Thus, students' explanation of their poor performance will affect their future actions and adaptive behaviour. If a student believes that he/she has performed poorly because he/she is not working hard enough, he/she can improve the situation by studying harder whereas if a student believes that his/her poor performance is due to the lack of ability, he/she will expect repeated failure in future since he/she cannot do anything to improve the situation. Low expectancies for success provide a logical link between attributional pattern, self-evaluation and attendance behaviour.

In the following section, the learned helplessness theory will be described, and its relevance to the study of truancy will be discussed.

### THE ATTRIBUTION THEORY OF LEARNED HELPLESSNESS

#### The idea of learned helplessness

"Learned helplessness" is one key concept which has emerged out of research in the area of locus of control. Seligman (1975) first developed the concept with a series of experiments using dogs as subjects. These dogs, after exposure to stressful conditions under which there was nothing they could do to alleviate the stress, were found to become quite passive and accepting of the stressful circumstances. Specifically, it was found that the dogs under the condition of uncontrollable shocks (a) failed to initiate escape responses (motivational deficit); (b) showed inability to profit from an occasionally successful escape response (cognitive deficit); and (c) showed passive acceptance of the shock (emotional deficit). It is this set of motivational, learning, and emotional deficits that Seligman designated as learned helplessness.

It was Dweck (1975), Dweck and Reppucci (1973), and Diener and Dweck (1978) who first applied Weiner's attributional theory of achievement motivation (1972, 1974) and helplessness ideas to the research on "learned helplessness" of human subjects. It was found that children who attribute failure to lack of ability employ ineffective

strategies for problem solving, report negative feelings, expect to do poorly, and ruminate about irrelevant matters (e.g., Diener & Dweck, 1978). When these children encounter failure, they fall apart; prior success has little effect on them (Dweck & Reppucci, 1973); and see themselves as hopelessly inadequate to surpass them (Diener & Dweck, 1978). These children were designated as "helpless". In their research, subjects who believed they were unable to have any influence at all on their fate were described as being in a state of "abject surrender." Other researchers (e.g. Parson, Adler, & Kaczala, 1982) also have reported that children who attribute their poor performance to lack of ability have little confidence in themselves and develop low expectancies of success.

Seligman (1975) suggested that the major causal factor in the development of learned helplessness in human subjects is the belief or expectancy that their actions would not exert influence on the future probability of environmental outcomes. It was further specified that exposure to uncontrollable events leads to the development of the expectation of response/outcome independence (Seligman, 1975). This expectation of response/outcome independence is the cognitive representation of the absence of a contingent relationship between response and outcome. The expectation of uncontrollability may then generalize to other environments in which adaptive responses are objectively possible. Learned helplessness is the overgeneralization of this expectation. In his later work, Seligman drew the parallel between learned helplessness and depression, and stated that learned helplessness might be seen as a model of naturally occurring depression in humans.

In brief, the early development of the "learned helplessness" concept has contributed to the understanding of the uncontrollability-helplessness link as a crucial element of the learned helplessness theory. The basic premise is that a person's belief that events are uncontrollable and that response and outcome are unrelated would lead to the lowering of self-esteem and the generality of helplessness deficits.

According to Seligman (1975), the expectation that a person cannot control the outcome of events leads to cognitive and motivational changes which disrupt future coping attempts. Learning that outcomes are independent of any responses generates the belief that responding is ineffective. This belief interferes with the acquisition of new

response-outcome relationships. Removing the incentive to respond creates motivational deficits, which decrease the initiation of coping attempts along with much voluntary responding. The result is discouragement and a diminished ability to deal with the environment.

Seligman (1975) proposed further that this cognitive expectation of uncontrollability leads to emotional changes. The subject responds to the traumatic event with fear, anger, and anxiety, which last as long as the event is perceived as uncontrollable. These emotions interfere with the learning of new adaptive behaviours. In summary, Seligman has proposed that the cognitive expectancy of uncontrollable outcomes generates cognitive, motivational, and affective deficits that interfere with the individual's coping skills.

However, the perception of uncontrollability, as the sole cognitive factor, cannot account for many aspects of the learned helplessness phenomenon. Several studies failed to find performance deficits in subjects exposed to noncontingent outcome conditions (e.g., O'Leary, Donovan, Krueger, & Cyskowski, 1978), while Roth and Kubal (1975) actually found a facilitation of performance after exposure to noncontingent punishment. There appear to be several important variables intervening between the objective response-outcome contingency, the expectation of that noncontingency, and the cognitive, motivational, and affective deficits that interfere with adaptive coping.

Miller and Norman (1979) indicated that it was the interaction between one's expectancy of response-outcome independence and one's expectancy of failure to obtain desired outcomes that give rise to the feeling of learned helplessness. Within this interaction, locus of control, attribution of causality, and the perceived values and specificity of the event or situation determined the intensity and generalizability of learned helplessness. Miller and Norman (1979: p. 111) emphasize that "it should be noted that attributions to causes that are internal, important, stable, and general are predicted to maximize the severity and generalization of learned helplessness, whereas attributions to causes that are external, unimportant, variable, and specific will minimize deficits". Consequently, those who undergo major life-stressful events (i.e., most aversive) and have a belief system that environmental events are within their control

(i.e., internal and stable) will most likely develop feelings of helplessness in situations where consistent failures and response-outcome independence are prevalent.

Miller and Norman (1979) have focused upon the variables that lie between the objective response-outcome independence of a situation and the expectation of that independence in other situations. They have proposed a three-way interaction between the outcome cues, situational cues, and individual differences that mediate the perception and expectation of noncontingency.

Outcome cues refer to the characteristics of the feedback concerning an individual's performance in a given situation. To produce the expectation of noncontingency consistently, the outcome cues in the experimental situation must include both response-outcome independence and failure experiences. Studies that have exposed subjects to noncontingent positive reinforcement failed to produce consistent expectations of response-outcome independence (Benson & Kennely, 1976; Hiroto & Seligman, 1975; Roth & Bootzin, 1974; Roth & Kubal, 1975).

Situational cues refer to the stimuli present in the situation itself that influence the individual's perception and interpretation of outcomes. Hiroto (1974) reported that subjects who were given instructions that the onset of an aversive stimulus was contingent on their responses showed significantly less helpless behaviour than those subjects who were told that the experimenter controlled the stimulus.

The amount of exposure to the response-outcome independence has been found to be a second situational variable affecting the expectancies of the subject. Roth and Bootzin (1974) and Roth and Kubal (1975) have suggested a curvilinear relationship between the amount of exposure to noncontingent punishment and the expectations of that noncontingency. A moderate degree of exposure fosters a response increase as the subject, still attempting to cope, tries more behaviours in his repertoire in a search for the most adaptive. A severe degree of exposure overwhelms these coping attempts as the subject concludes that there is no adaptive response. Roth and Kubal (1975) varied the amount of exposure to noncontingent outcomes in an experiment. They found that subjects exposed to a single condition of response-outcome independence showed facilitation effects, while subjects exposed to two conditions of response-outcome

independence showed a decrement in learning.

Roth and Kubal (1975) also investigated a third situational variable, number of tasks. They found greater interference with learning in subjects exposed to two tasks with response-outcome independence than in subjects exposed to only one task.

Individual differences is the third class of variables hypothesized to be important in producing the expectations of noncontrol. Gender is one source of individual differences (Dweck & Bush, 1976). Dweck and Reppucci (1973) studied the effects of achievement motivation and gender, and found that 6-year old boys attributed outcomes to the amount of effort more often than 6-year old girls and had significantly lesser performance deficits. Locus of control also accounts for individual differences. Hiroto (1974) studied the prior expectations of subjects who were entering response-outcome independent conditions. He found that subjects who scored in the external direction on Rotter's (1966) Internal-External Locus of Control Scale showed greater performance deficits after exposure to noncontingent reinforcement than subjects who scored in the internal direction.

Abramson, Seligman, and Teasdale (1978) claimed that from the interaction of these three variables individuals attempt to form a cognitive representation of their recent experience. They form a series of hypotheses about the experience with which they attempt to make sense of the recent experience and prepare themselves to make more adaptive responses in the future. Central to these hypotheses are the attributions which individuals make about the causes of their recent experiences.

In their reformulation of the learned helplessness model, Abramson, Seligman, and Teasdale (1978) addressed two major problems with the original formulation. The first problem is that no distinction is made between "universal helplessness" and "personal helplessness". The former refers to instances in which outcomes are uncontrollable for all people, whereas the latter refers to instances in which outcomes are uncontrollable only for some people. The importance of differentiating between the two is that only the latter is associated with low self-esteem. For example, an average student failing an examination in which other classmates also failed would not lose self-esteem; but being the only failed student in class, the student would suffer from loss of self-esteem. The

second problem is the failure to explain variations in the generality of helplessness deficits. As it was argued, instances of general helplessness are most likely to occur in highly unusual situations, and "learned helplessness" does not refer only to such instances of highly generalized passivity. Rather, helplessness can be described as being somewhat general and somewhat circumscribed.

### Reformulation of the learned helplessness model

The reformulation of the learned helplessness model (Abramson, Seligman, & Teasdale, 1978) gives a more comprehensive mapping of the hypothesized sequence of events leading from noncontingency to helpless behaviour. It states that when people encounter important events that elude their control, they expect responses and outcomes to be independent. But their expectation of noncontingency is not sufficient to result in helpless behaviour. Rather, their causal attribution for this noncontingency influences their expectation for future noncontingency, which in turn determines the nature of helplessness deficits.

Central to the helplessness reformulation are three dimensions to causal attribution for uncontrollability. The attributional dimensions allow the two problems with the original theory to be resolved. The first dimension, internality versus externality, resolves the problem of failing to explain universal versus personal helplessness and the associated effects on self-esteem. The other two dimensions, stability versus instability and globality versus specificity, resolve the problem of failing to explain the variations in the generality of helplessness deficits.

The internal-external dimension differentiates between causes that stem from within the individual (e.g. ability and effort) versus causes that stem from external environmental and situational factors. An internal explanation for uncontrollable events is associated with personal helplessness, whereas an external explanation is associated with universal helplessness. In the former case, uncontrollability is attributed to something about the particular person, but in the latter case, uncontrollability is attributed to something about the situation or circumstance that would affect anybody placed in it. The implication of attributing uncontrollability to internal or external causes is that attributions to internal factors following failure experiences are more

likely to result in loss of self-esteem than attributions to external factors.

The stable-unstable dimension distinguishes between causes that are long-lived and recurrent versus those that are short-lived and intermittent. The implication of attributing uncontrollability to stable or unstable causes is that attributions to stable causes should produce passivity and helplessness deficits with greater generality across time than attributions to unstable causes.

The global-specific dimension, which was first introduced by Harold Kelley (1967, 1973), refers to the distinction between causes that occur across situations and those that are more unique to the situation. The implication of attributing uncontrollability to global or specific causes is that deficits attributed to global causes are more likely to generalize across outcome and situation than those attributed to specific causes. Specific causes are more circumscribed and hence affect fewer outcomes and situations.

Each of these attributional dimensions, despite being described as dichotomous, is conceived of as a continuum. A person will move along this continuum as a result of changes in the interaction between outcome cues, situational cues, and individual differences (Abramson, Seligman, & Teasdale, 1978). Secondly, these dimensions are entirely subjective. Although general statements can be made about the dimension of particular attributions, the only accurate way to predict a person's expectations is to assess his/her perception of the dimensions of the attributions (Peterson, Maier, & Seligman, 1993).

### EXPLANATORY STYLE AND LEARNED HELPLESSNESS

The helplessness reformulation further suggests that the individual's "attributional style" accounts for how he/she habitually explains uncontrollable events (Abramson, Seligman, & Teasdale, 1978). Thus people's differences in "attributional styles" allow for variations in their responses to uncontrollability.

Peterson and Seligman (1984) further conceived of "attributional style" as a trait. Their view was based on the following grounds: first, attributional style is cross-situationally consistent; second, attributional style shows fairly high stability



across time; and third, attributional style is only consistent to a subset of the population. Metalsky and Abramson (1981) concurred by pointing out that people with a particular kind of attributional style tend to make particular kinds of causal inference across different situations and across time.

Peterson and Seligman (1984) later replaced "attributions" and "attributional style" by "causal explanations" and "explanatory style". In their view, "causal explanations" is a more appropriate term to use than "attribution" because the latter means the ascription of any property to any object or event, but in the helplessness reformulation, the only relevant type of attribution has to do with how people assign causes to events involving themselves (Peterson, Maier, & Seligman, 1993). In addition, a distinction was made between "uncontrollable events" and "bad events" as a subset of uncontrollable events. The argument is that bad events, rather than uncontrollable events in general, are the critical factors producing deficits. It is bad events that would incur the loss of a desirable outcome or a highly aversive outcome, and for this reason, an internal, stable, and global explanation for a bad event will lead to helplessness.

Peterson (1986) studied the relationship between explanatory style and helpless behaviours using a version of the Attributional Style Questionnaire (ASQ) and a self-report questionnaire that asked subjects to report the frequency of each of the helpless behaviours. He found that helpless behaviours were more frequent among those subjects who explained bad events with internal, stable, and global causes than among those who offered external, unstable, and specific explanations. Another study (Nolen-Hoeksema, Girgus, & Seligman, 1986) also showed that explanatory style is linked to helpless behaviours. The explanatory style of grade school students, as measured by the Children's Attributional Style Questionnaire (ASQ), was found to be predictive of teachers' ratings of the students' helpless behaviours.

#### Expectation for future noncontingency

To recapitulate the helplessness reformulation, internal explanatory style is related to personal helplessness; a stable explanatory style is associated with generality of helplessness across time; whereas a global explanatory style is associated with generality of helplessness across situations. The reformulation predicts that people who

explain failure in terms of internal, stable and global causes will reduce their expectancy for future success since they are pessimistic and do not expect any action would control outcomes in the future. In other words, a pessimistic explanatory style leads to lower expectations of success.

Anderson's study (1983) lends support to this relationship. In this study, failure to recruit blood donors through phone calls was conceived of as a bad event. Two groups of subjects were compared on their expectations of success following failure. Those who explained bad events in terms of character deficits represented the group offering internal, stable, and global explanations; and those who explained bad events with behavioural mistakes represented the group offering internal, unstable, and specific explanations. The findings indicated that subjects who explained bad events with character deficits showed lower expectations of success than subjects who explained bad events with behavioural mistakes. In other words, pessimistic explanatory style was related to lower expectations of success.

#### Explanatory style and self-esteem

The reformulation predicts that internal explanations for bad events are associated with loss of self-esteem. Peterson, Maier, and Seligman (1993), based on a review of the pertinent research literature (e.g., Brewin & Shapiro, 1984; Devins, 1982; Fielstein, Klein, Fischer, Hanan, Koburger, Schneider, & Leitenberg, 1985; Girodo, Dotzenroth, & Stein, 1981; Ickes & Layden, 1978; McFarland & Ross, 1982; Rothwell & Williams, 1983; Weiner, 1979), concluded that empirical evidence generally supports this prediction. However, it is not clear that internal explanatory style is more strongly related to poor self-esteem than a stable or global explanatory style.

#### Learned helplessness and school failure

Peterson, Maier, and Seligman (1993) claimed that learned helplessness can be applied to social problems such as school failure. The degree to which a particular social problem represents learned helplessness can be assessed by three criteria (Peterson, 1985). First, the individual would act in an inappropriately passive way in situations in which coping through mental or behavioural activity indeed brings about

the desired results. Second, the individual would have experienced a history of events that he/she perceives to be uncontrollable. Third, the individual is engaged in self-defeating actions and these actions, which are described as learned helplessness, would be mediated by his/her beliefs or cognitions about helplessness acquired during exposure to uncontrollable events. In brief, a social problem representing learned helplessness should satisfy more than one of the above criteria: some involvement in inappropriate or maladaptive passivity, a history of uncontrollable events, and cognitions about helplessness.

A study (Johnson, 1981), cited by Peterson, Maier, and Seligman (1993), assessed all three criteria of learned helplessness in school failure by comparing measures of attribution, self-concept and persistence of three groups of male students: average students; chronically failing students; and chronic failers who were enrolled in remedial classes. The findings support the argument that chronic failure in school involves learned helplessness. All these variables covaried, along with low self-esteem, and all achieved their lowest values among the chronic failers. Finally, remedial instruction showed some signs of alleviating helplessness. Another study of sixth grade students (Kennelly & Mount, 1985), cited by Peterson, Maier, and Seligman (1993), provided evidence to show the relationship between uncontrollability and helplessness. This study examined the following variables: the students' perceptions of the degree to which their teachers delivered rewards and punishments in a contingent versus noncontingent fashion, their beliefs about the causes of success and failure, their actual academic performance, and whether or not their teacher saw them as helpless. The results showed that students' perceptions of reward noncontingency were strongly correlated with their helplessness. Further, students who believed that academic outcome were uncontrollable were rated by their teachers as helpless. All these variables in turn predicted actual academic performance.

Academic achievement has been cited by Peterson, Maier, and Seligman (1993) as an example of social problems representing learned helplessness. Their view is supported by empirical evidence which demonstrates a link between helplessness and academic outcomes for both grade-school children and college students. For example, Abramson and Martin (1981) showed that high and low grade students had different attributional style. A pessimistic attributional style was associated with low grade or

performance. A study on poor readers (Butkowsky & Willows, 1980) also rendered support to the hypothesis that reading difficulties entail learned helplessness. The findings showed that fifth grade boys with reading difficulties expect little future success at reading tasks, offer internal and stable explanations for their failures, and fail to persist at reading. Numerous investigations (e.g., Kamen & Seligman, 1985; Nolen-Hoeksema, Girgus, & Seligman, 1986; Peterson & Barrett, 1987; Villanova, Peterson, & Kyger, 1988) have reported the predictability of pessimistic attributional style on poor academic performance of college students. For example, in a study of freshman and upperclass university students (Kamen & Seligman, 1985), poor academic performance was recorded for those upperclass students who habitually offered internal, stable, and global explanations for bad events, even when their SAT scores were held constant. Pessimistic explanatory style also was found to predict poor grades among the less able freshman. Peterson and Barrett (1987) conducted a similar study among freshman students with lower SAT scores than those studied by Kamen and Seligman (1985). The results showed that pessimistic explanatory style for bad events indeed predicted poor grades, even for those students whose SAT scores were the same. Furthermore, these helpless students tended not to go to an adviser, and not going to an adviser was associated with poor grades. From the research findings, Peterson, Maier, and Seligman (1993) concluded that the criteria of passivity and cognition of learned helplessness are brought to bear on poor academic performance.

### ATTRIBUTIONAL RETRAINING

Attributional retraining has been shown to be effective for improving reactions to failure. In retraining, children can be taught to attribute failure to a lack of effort (Dweck, 1975). Other researchers (Craske, 1988; Perry & Penner, 1990) conducted similar studies and also found that training children to reattribute their failure to the lack of effort did help them to improve their performance. Because reattribution helps to enhance students' ability to learn, reattribution training has also been found to be effective for improving the academic performance of failed college students (Van Overvalle, 1989).

On the basis of the above findings, as well as similar findings of other researchers (Brustein, 1978; Cecil & Medway, 1986; Sowa & Burks, 1983; Wilson & Linville,

1982, 1985), Peterson, Maier, and Seligman (1993) concluded that reattribution training is effective against school failure. More importantly, the success of attribution retraining as a cognitive intervention further strengthens the argument that school failures exemplify learned helplessness (Peterson, Maier, & Seligman, 1993).

Furthermore, the attribution model predicts that people with a history of bad events would arrive at helpless cognitions, and end up at risk for passivity. Its central constructs such as situational contingencies and cognitions provide a readier target for intervention.

### IMPLICATIONS FOR THE PRESENT THESIS

The relevance of the learned helplessness model to the study of failures of human adaptation such as school truancy can be seen from Peterson's conclusions (Peterson, Maier, & Seligman, 1993). First, an individual's causal explanations for bad events affect his/her response to these events in the form of motivation, emotion, cognition, and behaviour. Second, an individual has a characteristic explanatory style or a habitual way of explaining bad event. Third, explanatory style predicts the vigour or passivity with which an individual behaves in many domains.

In this thesis, school truancy is conceived as a school adjustment problem representing learned helplessness. One of the objectives was to compare the patterns of attributions of the truants and non-truants recruited from the junior Forms of secondary schools in Hong Kong. No intention was made to formulate tight hypotheses for testing in the present study even though the theoretical background drawn from Western literature appears to support the portrayal of a school truant as a student who has an external orientation of locus of control and a pessimistic explanatory style which is characterized by an internal, stable and global explanation for bad events. In this connection, the cultural characteristics, psychological characteristics and achievement behaviours of the Hong Kong Chinese adolescents will be examined next.

## CHAPTER IV

### **CULTURAL CHARACTERISTICS AND ACHIEVEMENT BEHAVIOURS OF THE HONG KONG CHINESE ADOLESCENTS**

To understand the psychological characteristics of the school truants, the cognitive and personality development and causal attributions among Hong Kong adolescents must be examined in the context of the Chinese culture of the Hong Kong society. Vygotsky's (1994a) socio-cultural theory has pointed to the importance of cultural experiences in the development of a child's psychological functioning and behaviour. In the process of development, as claimed by Vygotsky (1994a: p. 57), "there is the line of cultural improvement of the psychological functions, the working out of new methods of reasoning, the mastering of the cultural methods of behaviour". The Chinese culture and pattern of socialization, and the education system and family structure in Hong Kong are important factors shaping the achievement behaviour and the psychological characteristics of the school children in Hong Kong.

#### THE CHINESE CULTURE AND PATTERN OF SOCIALIZATION

The Chinese culture is rooted in Confucianism. Institutionalized as an orthodox ideology as early as the reign of the emperor Wu (141 – 87 B.C.), Confucianism continues to have an overwhelming influence on Chinese people's ways of thinking, behaving and doing..

The beliefs and values of the Chinese stem from the traditional agricultural society in China. Today, many of these beliefs and values are still upheld by the Chinese of the older generations even though modernization and urbanization have replaced their traditional agricultural life pattern. Ancient Chinese farmers believed that the yield of a good crop was controlled by the skies, and that the heavens was the absolute power which determined their positions in society and regulated everything on earth. Based on this belief, they observed the need to please the heavens so as to avoid chaotic events and be rewarded. Their view that harmony assured good fortune and disharmony brought misfortune is clearly revealed by the saying "prosperity in everything begins with harmony in the family".

Confucianism prescribes five sets of social relationships in society which are termed

“five cardinal relations” by the Chinese. Behind these prescriptions of social relationships lie an emphasis on family responsibility and female subordination, group interests before individual interests, conflict avoidance and loyalty to authority. Within a traditional Chinese family, every member must address each other by ordinal position in the generation and perform the expected role to preserve family peace and harmony. The way an individual should behave in parent-child, husband-wife, sibling, superior-subordinate, and peer relationships is clearly defined and strictly observed by the Chinese today. In a Chinese family, the father is seen as the highest authority who plays the role of the disciplinarian in the home (Ho, 1981). The mother serves as an “intermediary” (Ho, 1981: p. 88) between her husband and children and conveys her children’s wishes to her husband if the wishes may displease her husband. The role of a son is to assure the continuation of the family line, look after his parents in their old age, and carry out the duties of his father. The role of a daughter is to perform domestic duties, get married, be an obedient daughter-in-law, and bear children, especially males.

In the traditional Chinese family, ancestors and elders are viewed with great reverence. Conforming to the demands of the parents and other family elders is expected of each one in the younger generation. To carry out this commitment, children must yield unquestioned obedience to the elderly, achieve well, maintain a good family name, and bring credit to the family. Bad or unexpected behaviors such as misconduct, laziness, and disobedience are considered as shameful, will disgrace the entire family and thus, must be suppressed by the ruthless use of shame. Consequently, to become a good son or a good daughter, an individual must obey the parental wishes and conform to the family goals. In sum, the Chinese are best described as “situation-centered” in contrast to “individual-centered” (Tseng & Hsu, 1970).

In emphasizing the moralistic orientation of the Chinese culture, some theorists (Solomon, 1971; Hsu, 1953) attribute this to the influence of the dominant Chinese writings, e.g. those of Confucius, on the subject of moral philosophy which espouses the principles for proper conduct. Childrearing in Chinese families concentrates on the moralistic/conduct dimension rather than on nurturance and the presence of an intimate parent-child relationship in the development of personality formation. In presenting a comprehensive view on the traditional patterns of socialization in Chinese society, Ho (1981) points out that “educating the young” may be a more appropriate term in

describing socialization in Chinese families than “childrearing”. From the Chinese point of view, education and the development of a moral character are the key steps to make children learn and understand their duties both inside and outside their families and must be fostered as soon as children are old enough to understand.

When the children reach school age, education is emphasized and pressures are imposed on the children to achieve academic success. Concerns over academic success have their long-standing root in the traditional Chinese society whereby scholars command unrivaled social status and reference (Ho, 1981). In the writer’s experience, Chinese parents harbour the belief that academic success entitles a person to a bright future and rewarding career. Parental tolerance for poor performance is low, and commands and prohibitions are rigidly enforced. At school, strict discipline is imposed to make sure that school children would pay maximal attention in class and devote themselves to their school work. Thus, both parents and teachers are responsible for educating the young. As expressed by the Chinese saying, “rearing without education is the fault of the father; teaching without strictness is the negligence of the teacher”.

Family education emphasizes the formation of moral character and according to the Chinese, children without a proper family education can ruin the reputation of their families and bring disgrace to their parents (Solomon, 1971; Hsu, 1953). Filial piety, which demands children to yield absolute obedience to their parents and to honour the ancestors, is the guiding principle that children must observe in their family education (Ho, 1981). Older children must set an example for their siblings in academic excellence, obedience to parents and elders, manners, interpersonal harmony, and control of impulses. All children must present themselves humbly in front of others and attribute credits and achievements to their parents or families. Thus, while children learn that they must perform well and attain academic success, they learn not to brag about themselves but to attribute their success to their parents. Humility plays a crucial role in the formation of personality among the Chinese; and filial piety serves as the guiding principle in their socialization.

In sum, the influence of the Confucianism in the Chinese culture are revealed from the way Chinese people view human growth and development and observe their duties both inside and outside their families (Liu, 1982). Age, sex, and generation status



determine an individual's position in a traditional Chinese family. With these determinants, an individual's role and behaviour within the family are fixed. Strict discipline is imposed on children to ensure that they learn their duties and obligations both inside and outside their families. They are expected to restrain and inhibit personal feelings, obey their parents, achieve academic excellence, attain outstanding occupational status, bring credit to their families, practice humility, and maintain interpersonal harmony. Failure to carry out these obligations will be strongly punished through the use of shame. Grouping these together, Chinese are generally more deferential, less autonomous and exhibitionistic than people of other cultures (Sue & Sue, 1973). As the family in effect has set up a psychological boundary for its growing children, misconducts in the children's later developmental stages could be easily suppressed and the period of adolescence would be less likely be marked by turmoil and rebelliousness as one would expect from adolescents in many Western societies (Ho, 1981).

#### EDUCATIONAL SYSTEM AND ACHIEVEMENT BEHAVIOUR OF SCHOOL CHILDREN

The educational system in Hong Kong follows that of the British. Schools are divided into government, grant-aided, subsidized, and private. The primary course covers a period of six years, usually from age 6 to 12; and the secondary school covers a period of seven years, usually from age 13 to 19. To struggle through the educational system of Hong Kong, children must prepare to pass both public and school examinations; and passing all examinations is the chief concern of both parents and school children. In sum, surviving and excelling in academic competitions is the goal of the school children in Hong Kong. To investigate the reasons for the devotion to education and the industriousness of the Hong Kong students, Ross (1977) indicates that the British educational system and the effects of the Chinese cultural values in a highly competitive industrialized society are the elements that convince children in Hong Kong that they must excel in school.

It has been often argued that one of the underlying reasons for the success of Hong Kong is the importance, and the attendant achievement orientation, Hong Kong people place on education. A study has shown that parents in Hong Kong have high aspirations

for the educational attainment of their children (Wong & Ng, 1995). The children themselves also have high hopes for their own educational attainment. However, parents are generally dissatisfied with the achievement of their children. The scope of ambition, as far as education is concerned, seems limitless. Thus the pressure imposed on Chinese adolescents in Hong Kong for academic success is tremendous. A study of 224 Chinese students aged 15 years old (Leung, Salili, & Baber, 1986) reported the subjects' fears concerning failure in examinations and poor performance, and the guilt and self-blame on their part for being lazy, inefficient, inattentive and having lack of interest.

In the writer's view, the influence of the traditional Confucian value placed on education has been reinforced by the elitist practice of the education system and the school, the conventional curriculum and teaching approaches, as well as the rigid enforcement of rules and regulations of the school. Some scholars and educators may argue that such practices have undesirable impact on students' adjustment to the school.

#### Elitist practice of the education system

Elitism is the polarization of good and bad students (Lee & Cheung, 1992), resulting in the tracking of top-ranking students into a few eminent or elite schools. The Hong Kong style of elitism, being a mixture of the British tradition of elite education and the Chinese tradition of achievement-oriented education, may exert a profound influence on the students' performance and behaviour in school.

The practice of elitism begins with the operation of the Secondary School Places Allocation (SSPA) System. This system, which assigns primary school graduates to secondary schools, is based on internal school assessments (Primary 5 and 6 term scores for each pupil), scaled by a centrally administered Academic Aptitude Test, on the basis of which Primary 6 pupils are divided by merit into five "bands:" of equal size. "Band 1 schools" are schools which admit the top-ranking students and "band 5 schools" are low achievement schools which admit the bottom-ranking students. Allocation of pupils to schools is done randomly by computer within each band, taking into account the parents' order of choices. Furthermore, non-elite and newly established schools, with a high concentration of less capable students, are less likely to attract good students and teachers. The allocation of secondary school places to primary school graduates is thus a

discriminating practice against underachievers or less capable students.

Furthermore, the system mainly provides grammar school places for the young and does not give them much choice. Even though pre-vocational training schools and technical schools may be a better choice for the underachievers, the available places are limited. The percentage of primary school graduates entering vocational and technical schools is less than ten percent of those entering grammar schools (Li, 1992).

Such an elitist education system, which puts excessive emphasis on examination and competition, could be particularly psychologically damaging to the less capable students. Their failure is reinforced by a system which serves to systematize and prolong the deterioration of school performance by assigning them a low status and a low sense of self-evaluation. Research has shown that academic achievement of secondary school students and standard of streaming of school in Hong Kong are significantly related to self-esteem (Cheung & Tam, 1984).

#### Elitist practice in schools

The practice of the elitist approach to education extends to the school level in order to ensure that the school is in a better position to compete with other schools. With the excuse of adapting to students' speed of learning, schools assign students to classes according to the results of examination (Lee & Cheung, 1992). In the writer's experience, the consequence of this practice is that classes are divided into elite and non-elite classes within the same school, with the elite classes receiving more attention from teachers to ensure that a certain standard of performance is maintained. The writer has also observed that teaching in private schools is usually of inferior quality because teachers with higher quality teaching wish to teach in government and subsidized schools.

With too much emphasis on academic success, teachers tend to ignore the importance of students' developmental needs. In order to maintain the standard of the school, teachers put a great deal of pressure on students to do better. Teachers' emphasis on academic success is further supported by parents (Lee, 1991). Parents regard good academic results as the only route to tertiary education and future success. In most

cases, parents push their children to study hard, and schools respond to parents' expectations by giving students more tests and lengthy assignments.

### Curriculum and teaching approaches

Curriculum and teaching approaches are middle-class and conventional. The junior secondary curriculum consists of Chinese language, English language, mathematics, Chinese history, integrated science, physical education and choices between geography, history, social studies, art, and music. Schools run by religious bodies also offer religious studies. The subjects most emphasized are the two languages and mathematics, each of which takes up at least one period a day, whereas every other subjects has two or three periods a week.

The curriculum is academically demanding. Although the Education Department hopes to introduce some practical subjects into the curriculum, this has not been supported by educators and parents. As commented by Luk (1999: p. 255), "the junior secondary school in Hong Kong, although compulsory and universal in character, nevertheless continues to function in the guise of an elitist academic institution". The restrictive and academic nature of the curriculum could make school life dull and uninteresting.

A common core curriculum may not be applicable to children with special education needs. There is little flexibility and innovation built into the curriculum or teaching approaches. A rather rigid school curriculum is designed to fit into the examination system which requires rote learning. Students are trained to have good memorizing ability rather than analytical skills. Those who have made every effort to study but with poor memorizing ability and inadequate examination skills are determined to be losers in the game. Besides, teaching does not cater to the students' learning needs. With a large class of thirty-five to forty students to teach, it is difficult for teachers to attend to every student and to take into account the uniqueness of each student in their teaching methods or approaches.

Such a learning atmosphere can have an adverse effect on students' confidence and interest in their studies. Despite the lack of interest and confidence in their studies,

many of them are compelled by the Compulsory Education Ordinance to stay in school up to the age of fifteen. The consequence of the lack of motivation and forced compliance may be an increase of behavioural problems both in quantity and complexity. Bird, Chessum, Furlong & Johnson (1980) point out that students' school experiences can be adverse if they find the curriculum irrelevant; if they cannot relate to its academic slant; if they cannot meet the demands it makes; and if it leaves them with a sense of failure. A study of quality of school life in Band 5 schools in Hong Kong (Pang, 1999) show that sense of achievement was not evident in the students' view of quality of school life and sense of opportunity had no effects on students' general satisfaction and negative affects.

### Rules and regulations in school

Traditional Chinese values on education place a great emphasis on students' moral and behavioural training. In particular, students are expected to give unconditional regard to their teachers who monitor students' behaviour through school rules and regulations. Students are expected to follow teachers' instructions in school, and obey the rules and regulations.

The traditional emphasis on students' moral and behavioural training in Hong Kong schools is clearly evident by the general prescription of rules concerning dress, personal decoration, student conduct and interpersonal behaviour. In the writer's experience, teachers also may formulate their own set of visible and invisible rules in the classroom. The nature and implementation of rules always create conflicts between teachers and students. Conflicts become sharpened when students are identified as potential troublemakers as a result of infringing these rules, particularly when teachers fail to give a fair judgement, or do not treat them with respect or being too strict to them.

School has something in common with the "total institution" which requires rigid obedience of rules and regulations. The paradox is that obedience to rules implies the possibility of disobedience. The possibility of disobedience means that teachers must keep an eye on the students to see if they have violated the rules and regulations and take a stand against them if they have done so. In this process, some teachers may develop strategies to control students. One of the strategies is to stereotype students.

Hargreaves, Heater, and Mellor (1975) and Leach (1977) have shown that teachers tend to stereotype individual pupils according to their capacity to create trouble. During recess and lunch time, teachers may discuss students in the staff room and further confirm their labels on particular students. The comments may spread among teachers. Once a student gains a reputation for trouble making, a positive teacher-student relationship is difficult to form. And even if a student demonstrates a genuine improvement in conduct, it is hard for teachers to believe and accept it (Bird et al., 1980).

To observe the impact of Chinese values on the children of Hong Kong, the family structure in Hong Kong must be examined.

### FAMILY STRUCTURE AND ACHIEVEMENT BEHAVIOUR OF SCHOOL CHILDREN

Nuclear families have largely replaced the traditional Chinese family structure in Hong Kong. Within the nuclear family, the father is the breadwinner of the family and makes all major decisions concerning the family. Sons are expected to follow the footsteps of the father; and children “inherit from the father in the form of educational opportunity, the placement of social status, or even a direct transference of family property and rights” (Wong, 1975: p. 994). Furthermore, the traditional family ties in the Chinese culture are maintained through frequent visits with relatives. In general, the Chinese community in Hong Kong still retains a high degree of respect for Chinese traditions which emphasize family cohesion and solidarity, family responsibility, conformity to parental expectations, and the need to bring credits to the family (Lee, 1991; Tam & Yeung, 1994). Consequently, with both the need to observe their own cultural values and the pressure to survive in a competitive society, Chinese children in Hong Kong learn the importance of attaining academic excellence and occupational success in their lives.

Clearly, the Chinese family in Hong Kong, in performing its role as a socializing agent, has a great impact on the achievement behaviours and the psychological characteristics of school children in Hong Kong.

## PSYCHOLOGICAL CHARACTERISTICS OF THE CHINESE ADOLESCENTS

Psychological characteristics of the Chinese adolescents in Hong Kong refer to locus of control and causal attributions. Below is a review of empirical findings of studies conducted on samples of school children in Hong Kong.

### Locus of control of school children

Research on locus of control are rare in Hong Kong. The first study was a cross-cultural study on locus of control among Hong Kong Chinese, Chinese-American, and White-American high school students (Hsieh, Shybut, & Lotsof, 1969). In this study, it was found that Hong Kong Chinese students were more external in their belief orientation than Chinese-American and White-American students. Observing the cultural differences, Hsieh et al. (1969) indicated that the belief orientation of the Hong Kong Chinese students was a reflection of the Chinese belief in fatalism – a conviction that life is fixed and determined by factors beyond one's control, and that one should let his/her pre-determined fate to run its course and pre-emptive worry is unnecessary. Another study of 224 secondary school students aged 15 in Hong Kong (Leung, Salili, & Baber, 1986) also lends support to this interpretation. The findings of this study showed that the Chinese adolescents worry about their competency while taking a 'let-it-be' attitude toward the future..

The belief orientation of the Chinese adolescents can also be explained in terms of the Chinese culture which value group goals and affiliation. As suggested by some researchers (e.g., Scott & Phelan, 1969; Hsieh et al., 1969), cultures which encourage independence and individuation are likely to have internally-oriented individuals; and cultures which value group goals and affiliation are likely to have externally-oriented individuals. In a cross-cultural study of Euro-Canadian, Chinese-Canadian and Hong Kong Chinese adolescents (Mak, 1988), both Hong-Kong-Chinese and Chinese-Canadian adolescents were found to have fairly strong external beliefs. These findings were interpreted in the context of the Chinese culture which emphasizes conformity to authority, parental wishes, and group-goal to maintain harmony in interpersonal relationships. Another interpretation of the externality in control orientation of the Chinese adolescents is found in the child-rearing practices of the Chinese parents. Research has shown that the development of locus of control is related

to child-rearing practices. It has been reported that parental nurturance, sanctioning, the granting of personal freedom, and the presence of consistent firm control are the elements for the development of internal locus of control, whereas rejection, deprivation of privileges, overprotection, and excessive use of punishment, which are typical of the Chinese child-rearing practice, are the elements that foster a belief in external control in children (e.g., Katkovsky, Crandall, & Good, 1967; MacDonald, Jr. 1971).

Leung et al. (1986) also found a moderate to low but statistically significant relationship between externality in orientation of control, adolescent problems, low self-esteem, and poor family environment. These findings suggest the relevance of the “focal” model of adolescent development (Coleman & Hendry, 1990) in the explanation of adolescent problems in Hong Kong. Those adolescents who have more than one concern and different relationship issues to cope with at the same time are more likely to have problems and to feel being not in control. In response to their findings, Leung et al. (1986: p. 98) commented:

“If an adolescent can deal with various concerns adequately, he will report less problems, he is more likely to give a favourable evaluation of himself and perceive himself to be in control .... On the other hand, the cycle can run a downward spiral with mounting problems, lower evaluation of himself, and a sense of losing control.”

In sum, the findings of research have suggested relations of locus of control with family and school experiences; and more importantly, culture plays a crucial role in determining the development of locus of control in children.

#### Causal attributions of school children

People’s attributional patterns are affected by their cultures, and these patterns will generate different outcomes. Mizokawa and Ryckman (1990), in comparing attributions of academic success and failure of six Asian-American ethnic groups, concluded that each ethnic group had distinctive attributional profiles and unique data patterns.

It was Bond and Wang (1981) who first examined the link between the Chinese culture and the causal attributions of the Chinese students in Taiwan. According to Bond and Wang (1981), Chinese students learn to control aggressive impulses so as to retain



order and harmony within the group or family. To maintain harmony in interpersonal relationships, Chinese students also make non-self-serving or self-effacing attributions in the case of success and such a tendency increases when they are in public situations. The first study of the pattern of causal attribution in Hong Kong was conducted by Wan and Bond (1982) on a sample of undergraduate students. Wan and Bond (1982) found that most of their subjects accepted personal responsibilities for failure and made non-self-serving or self-effacing attributions about their success.

Observing the cultural differences between Chinese and Americans, Bond, Leung and Wan (1982) commented that the tendency of making self-serving attributions or making internal attributions under success but external attributions under failure is replicated in most studies involving North American majority groups, but such a tendency is rarely observed in the Chinese culture. Bond, Leung, and Wan (1982) showed that humility and making non-self-serving or self-effacing attributions about one's abilities were seen as favourable behaviours among the Chinese. Although some studies show that the American majority groups also make non-self-serving or self-effacing attributions (e.g., Tetlock's study) like the Chinese, Bond et al. (1982) point out that the motives behind the attributions of the two groups are different. According to Bond et al. (1982), self-effacing attributions of the Americans are reflections of their desire to gain recognition and enhance public image while self-effacing attributions of the Chinese in the case of success are reflections of their desire to maintain harmonious interpersonal relationships.

Thus, causal attributions in the Chinese adolescents can be explained in terms of the Chinese cultural values which treasure interdependence and cohesiveness between group members as well as placement of group goals before personal goals. In observing the tendency of the Hong-Kong-Chinese adolescents to make self-effacing attributions under success and internal attribution under failure, Mak (1988: p. 270) commented that:

“By attributing their own personal failures to the lack of effort, Chinese adolescents practice their cultural expectation of not blaming others but accepting responsibility for failures. Based on this cultural expectation, Chinese adolescents practice humility and express gratitude for all good things others, especially their parents, have done for them. By being humble, responsible for their own failures, and

grateful for the good deeds from others, Chinese adolescents gain group-approval and maintain harmony in the group.”

Other attribution studies in Hong Kong revealed a reverse pattern of causal attributions which suggests that the Chinese adolescents in Hong Kong have a tendency to attribute success to internal factors, and to attribute failure to external factors. This tendency of making internal attributions under success but external attributions under failure has been extensively examined and replicated in most studies in North America.

Chung, Siu and Wong (1986) studied the causal attributions of 368 Form 3 students of nine secondary schools in Hong Kong. They found that students tended to attribute academic success more to effort and ability than task difficulty and luck, and to attribute academic failure more to the lack of effort and task difficulty than the lack of ability and luck.

A study which examined the structure of causal attributions for actual examination results on a sample of 18 classes of primary 2, 4 and 6 Chinese students (Hau & Salili, 1990) showed that the students tended to attribute success in examination to internal factors which included intelligence, knowledge, ability and effort; and to attribute failure to external factors including luck and teacher's bias.

Another study in Hong Kong explored the structure and dimensional meaning of causal attributions for actual academic performance (Hau & Salili, 1991). In this study, a sample of 247 Chinese students from junior and senior secondary school classes were asked to rate the importance as well as dimensional meaning of thirteen specific causes. Results revealed that effort, interest in study, study skill, and ability in study were perceived as important causes for academic performance and were the most internal, controllable, stable, and global. On the other hand, teachers' bias and luck were generally perceived to be relatively external, uncontrollable, unstable, and specific, and were less important factors in determining performance. In congruence with other findings in Hong Kong (Chung et al., 1986; Hau & Salili, 1990; Salili & Mak, 1988), effort was the most important cause of all. The emphasis on effort as the most important antecedent for academic achievement thus reflects the traditional Chinese beliefs that emphasize effort, endurance and hardwork as the key to success and taking responsibility for their performance (Hau & Salili, 1991; Yang, 1986). The belief that

effort leads to success and the cultural emphasis on taking personal responsibility suggests that the Chinese are more likely to attribute their failure to external factors.

### *Gender differences in causal attribution*

The research findings concerning gender differences in causal attributions in Hong Kong were somewhat inconsistent. Significant differences were reported only in some of the studies.

The study conducted by Chung et al. (1986) showed that boys were more likely than girls to attribute success to ability and to attribute failure to the lack of effort and luck; whereas girls were more likely than boys to attribute success to task difficulty. Thus, these findings indicate that for positive events, girls tend to attribute more to external stable causes and boys tend to attribute more to internal and stable causes; whereas for negative events, boys tend to attribute more to internal unstable causes.

However, Mak (1988) came up with different findings. This study found that female adolescents were more likely to attribute their success to effort than boys, and boys were more likely to attribute their failure to bad luck. Societal sex-role expectations were offered as an explanation for the observed differences. The tendency of female adolescents to attribute success to effort rather than to ability was seen as reflecting the their socialized trait of dependability which help them to gain acceptance from both peers and society. On the other hand, male adolescents, who are expected to be achievement-oriented and successful, are likely to protect their self-esteem by attributing their self-failures to bad luck, an uncontrollable cause.

No sex differences in causal attribution was found in Hau's study (1992). The non-significant gender differences were interpreted as being due to the influence of westernization. Hau (1992) maintained that western nonsexist attitude in child raising has been accepted among most Chinese families in Hong Kong, and that similar parental treatment of sons and daughters could be one reason for the non-significant gender differences to occur.

International literature also reported varied and inconsistent findings. For example,

Chandler and Shama (1983) made a five nation study of causal attribution of children. They found that there were sex differences between male and female students in making attribution in achievement success. It was reported that female students were significantly more internal and unstable than male students in attributing their achievement success. For failure, male students were significantly more likely to attribute to unstable causes. Nevertheless, Chandler and Shama (1983) pointed out that the differences were generally small and the meaningfulness of these differences was questionable. In 1984, Clarkson and Leder found that there were relatively few differences in the patterns of boys and girls in attributional style for success and failure. Peterson (1982) and Robins (1989) also found that there was no significant gender differences in attributional style. However, Dweck, Davidson, Nelson and Euna (1978) found that there were significant difference between male and female subjects in their attributing failure to ability which was an internal stable factor. They also reported that girls attributed academic failure to lack of ability whereas boys tended to attribute academic failure more to variable factors. They stressed that different attributional styles were due to different feedback that students had received in the classroom. They pointed out, for example, that teachers would suggest that male students' failures were due to their conduct or their nonintellectual aspects of their work, whereas, teachers would suggest that girls' failure were due to their intellectual inadequacy. Other studies have reported that female subjects attributed failure more to internal, stable and global factors, whereas their male counterparts did not (Dweck & Goetz, 1978; Ickes & Layden, 1976). Conversely, Bar-Tal, Goldberg and Knaani (1984) asked male and female students to rate the differences of dimensional meaning of specific causes, and they found no sex differences in the perception of the dimension meaning of the specific causes. They also found that there were no significant differences between two sexes in making attribution in successful events.

#### Age differences in causal attribution

Researches in Hong Kong have reported significant differences between students of different ages in causal attribution.

Mak (1988) reported that older children were more likely than younger children to perceive ability and effort as a determinant for their personal success and failure. The

findings were explained in terms of the difference in cognitive capability between younger and older children. According to Mak (1988), older children's capability of clearly perceiving the effectiveness of ability and effort as causes of success and failure was the result of their cognitive expansion.

Hau and Salili (1990) found that younger students attributed more to external causes and less to study at home, whereas older students attributed more to internal causes and study at home. These findings suggest that older students have stronger belief of own control over outcome. Older students' stronger attributions to internal causes and study at home were seen by the researchers as being influenced by the socialization in school and family. The study also showed that older students had stronger learning goals than younger students, and that the learning-oriented students were more likely to attribute to internal causes, whereas the performance-oriented students were more likely to attribute to uncontrollable causes.

Hau (1992) also reported that students at different education level have different attribution. His findings were consistent with those of Hau and Salili (1990) which showed that older children were more likely to make internal attributions, whereas younger children were more likely to make external attributions. He explained the results as being due to the differences in cognitive capability between younger and older children. According to Hau (1992), younger children are less capable; thus they will make more external attribution. Whereas, for older children, they know their ability clearer; thus, they will make more internal attribution.

The findings from international literature appear to be less consistent than those in Hong Kong. For example, Wigfield (1988) reported that there was developmental differences in attribution. He stressed that older children will make more internal attribution for success because they are self-focused. Younger children will pay more attention to external causes because they are task focused. Wigfield also pointed out that older and younger children differed in distinguishing between specific and general causes of behaviour. However, there are some research findings which indicate that there was no age differences in attribution. For example, Robins (1988) found that there was no grade differences in attributional style.

### Differences between high and low achievers in causal attribution

Differences between high and low achievers in causal attribution were observed in the above studies. The findings were generally consistent.

Chung et al. (1986) found that the high achievers were more likely than the low achievers to attribute success to effort and ability and to attribute failure to the lack of effort. But this was true only for boys. Thus, high-achiever boys were more likely than low-achiever boys to attribute positive events to internal factors which may be stable or unstable; and to attribute negative events to internal unstable factors.

Hau and Salili (1990) reported that low achievers made more external attribution in failure, whereas, high achievers made more internal attribution in success. Furthermore, high achievers tended to attribute their success to internal causes because they had stronger learning goals.

The results of the study conducted by Hau and Salili (1991) showed no significant difference in the dimensional meaning of the causes between the high and low achievers. The emphasis on hard work and taking responsibility for one's performance was found to exist equally for both high and low achievers.

Hau (1992) also found that high achievers tended to make internal attributions for success, and low achievers tended to make external attributions for failure. Specifically, high achievers attributed their success more to effort, whereas low achievers attributed failure to bad luck, teachers' bias and poor family. He also pointed out that in the stability dimension, low achievers had more stable attribution.

Few studies to investigate attributional style in other countries paid attention to the differences between high achievers and low achievers. Abramson and Martin (1981) showed that high and low grade students had different attributional style. Specifically, students with high grades had a tendency to attribute success to internal factors. However, in the study conducted by Clarson and Leder (1984), no significant difference in attribution pattern was found between high and low achievers.

## SUMMARY

Under the influence of the traditional Confucian value, Chinese students in Hong Kong place high values on education. They are expected to conform to authority and be loyal to their families. They have a high level of expectation in achievement which reflects their serious attitude in performance and their need for achieving well in competitions. The Chinese adolescents in Hong Kong learn at an early age the importance of achieving excellence in school work. To attain the goal of accomplishing success and avoiding failure in competitions, they would likely observe the demands of each competition and carefully estimate their abilities in relationship to the demands. In the highly competitive industrialized society of Hong Kong, these values enable them to survive most of the pressures that are imposed on them.

However, the description of some of the features of the Hong Kong education system echoes the suggestion in literature that failure is reinforced by schools. The pyramidal education system in Hong Kong provides the adolescents with extremely limited opportunities for higher training. In addition, they are required to pass extremely competitive examinations in order to enter schools and programs of their choice. As Pink (1982) points out, academically unsuccessful students may continue to fail to learn because their teachers teach them less compared with other students, teachers and schools fail to motivate them, and teachers are provided with scant resources with which to modify existing school practices. Other scholars have commented on the problems with the institutional arrangement of schools. In particular, the arrangement, involving grading and streaming processes which sift and sort young people into "successes" and "failures", is seen to result in a low articulation between schools and the needs of young people and incompatibility between commonly held goals of educational success and the legitimate means of goal attainment (Birman & Natriello, 1978; Hawkins, 1982; Willis, 1977). Wilson and Braithwaite (1977: p. 95), in concluding their analysis of schools and truancy, state that:

"Truancy is related to a considerable extent to any overtly competitive school system, which manifests itself in an overemphasis on "competition", on streaming classes, and on the lack of relevance of much of what is taught in school to a child's future."

Research on absenteeism in schools (Yim, 1982) and school dropouts (Centre for

Educational Leadership, 2000) indicate that most of the non-attenders and school dropouts were underachievers who found teaching in school boring, not stimulating and not useful. Specifically, they felt that only some of the teachers cared about students at school; that the curriculum was outdated and difficult; and that they were not proud of their own school.

If schools promote conditions in which young people may feel rejected and inadequate, then one should not be surprised that those who fail to survive in the system and those whose problems are compounded by the additional stress of lacking academic success may displace these feelings by truancy and choose to withdraw from the distressing experiences at school.

The review of research on causal attributions of students in Hong Kong indicates that the Chinese adolescents in Hong Kong are achievement-oriented. Their perception of self-failures are results of not trying hard enough. With the perception that utilizing the best of their abilities and efforts is important for the accomplishment of success, they set out to challenge their abilities and efforts in all achievement situations. By placing on themselves the demand of doing well and believing that they should be responsible for their own failures in achievement, Hong-Kong Chinese adolescents strive for excellence in achievement as well as accept difficulties in achievement by performing their best to solve and to overcome them.

Of theoretical importance is the indication that the dimensional meanings proposed by Weiner et al. (1972) do not seem to be replicated in Hong Kong. In classifying ability, effort, luck and task difficulty according to the internal-external and stable-unstable dimensions, Weiner et al. (1972) conceived ability as internal and stable; effort as internal and unstable; luck as external and unstable; and task difficulty as external and stable. However, the study conducted by Hau and Salili (1991) revealed some disagreement in the meaning of ability (in locus, controllability, and stability dimensions) and effort (in stability dimension). In commenting on these findings, Hau and Salili (1991) pointed out that the disagreement could have been due to the fact that students were asked specifically to rate the meaning of causes in an actual academic examination, and that the dimensional meanings could have been different if the rating was done without referring to any specific situation.



Another theoretical concern relates to gender and developmental differences in causal attributions of Chinese adolescents in Hong Kong. The review of research literature in Hong Kong has shown that the findings are far from conclusive. Similar observations can be drawn from a review of international literature which shows that some of the findings are consistent but others are not. These findings, despite being varied and inconsistent, indicate the importance of considering gender and developmental differences in causal attributions in the present study.

From the review of studies in Hong Kong, questions may also be raised as to whether there is a common attributional style among the Chinese adolescents in Hong Kong. Empirical evidence seems to suggest at least two patterns of attributions. The first pattern involves a self-serving attributional style for both positive and negative events (i.e., taking credit for positive events and blaming others for negative events); the second pattern involves a non-self-serving attributional style for both positive and negative events (i.e., not taking credit for positive events and blaming self for negative events). Still other patterns are possible. For example, one possible pattern may include elements of the other two patterns; that is, a non-self-serving attributional style for positive events (i.e., not taking credit for positive events) and a self-serving attributional style for negative events (i.e., blaming others for negative events).

The importance of further research on the causal attributions of the Chinese adolescents in Hong Kong is clear. The present study, with an aim to examine the psychological characteristics of school truants in Hong Kong, provided a unique opportunity to examine the patterns of attributions of the Hong-Kong Chinese adolescents and to understand more fully the variations of patterns in relation to school absenteeism, which may be linked to lack of positive social relations and poor achievement. It is in this connection that the goals and research methodology of the present study will be described.

## CHAPTER V

### THE PRESENT STUDY

The goals of the present study will be described, and the research methodology in terms of its adequacy for achieving these goals will be explained.

#### THE GOALS OF THE PRESENT STUDY

The present study aimed to examine the relation among children's locus of control, causal attributions and school truancy. This relation is clearly a complex one, but it might be better understood through an examination of children's perceptions about their family and school experiences. A thorough review of research conducted in other countries indicates that school truancy has been the focus of numerous investigations, but these studies have been mainly concerned with identifying social and school factors. Clearly, comparisons of the truants and non-truants about their social and school experiences may enhance our understanding of the processes underlying school truancy. For example, children who experience social distress in school or poor relations with classmates and teachers may develop a negative view of the school and reject the value of schooling. Thus, an understanding of children's social and school situations may be crucial in delineating possible sources and contributors to school truancy.

The review of empirical work on school truancy also indicates that locus of control rarely has been studied in relation to school truancy, and no study has been conducted to examine causal attributions as a psychological factor. Specific theoretical linkages among truancy status, perceptions of family and school experiences, locus of control and children's causal attributions are explored in this study. Children's locus of control and causal attributions are related cognitive and affective processes all of which are dependent to some degree on the types and quality of their family and school experiences. The truants are likely to be faced with a different attributional task than are the non-truants, primarily because their experiences differ.

The lack of research on school truancy in Hong Kong which examines the truancy phenomenon as well as the link between children's family and school experiences and the psychological dimensions of the problem provides a strong rationale for such a study.

The first goal of the present study was to compare the family and school experiences, locus of control and causal attributions of the truants and non-truants of the junior Forms of secondary schools in Hong Kong. Because there is no prior research in which children's locus of control, causal attributions, perceptions of family and school experiences, and truancy status have all been assessed in a single study, information about the proposed theoretical linkages is lacking. Thus, in the present study, the second goal was to assess how children's locus of control and causal attributions are related to perceptions of their family and school experiences and how these relations vary within each group. To further our understanding of the theoretical linkages among truancy status, family and school experiences, locus of control and causal attributions, the last goal of the present study was to assess the effects of Form and gender as well as the subgroup effects of these variables.

## RESEARCH METHODOLOGY

### The quantitative approach

Social science research is a scientific process for asking questions and seeking answers to questions that are relevant to the field of study within a social science discipline. The answers to these questions contribute to the development of knowledge that has theoretical implications and practical utility in the development, modification, and improvement of social conditions.

Knowledge development follows a logical progression from exploration to description, and from description to explanation and prediction. Exploration aims at discovery. It tells us whether a phenomenon exists or not, and whether the phenomenon merits further investigation. Knowledge at the exploratory level provides a basis for accurate description in a more careful study. Description aims to provide an accurate and precise description of a phenomenon. For example, a description of school truancy may look into the relations among school children's family and school experiences, their orientation of locus of control and their patterns of attribution. Description is a prerequisite to explanation. We cannot explain school truancy unless we know what it is to explain. Unless we know the factors of school truancy, we would not be able to explain what may have caused truanting behaviour. In explanation, the

purpose is to determine whether a cause-effect relationship is valid. Prediction is the logical opposite of explanation. If we know the cause of a behavior, we would be able to predict its occurrence.

The present thesis adopts a quantitative approach to inquiry the purpose of which is to provide a quantitative description of school truancy. In support of this decision, the distinctions between the quantitative and qualitative approaches to scientific inquiry, as discussed in methodology literature (e.g., Creswell, 2002; Bryman, 1988; Cohen, Manion, & Morrison, 2000; Guba, 1990; Patton, 1990; Punch, 1998; Sarantakos, 1993), must be examined.

One approach is quantitative. This approach emphasizes the building of knowledge through what is referred to as “logical positivism.” According to positivism, observations of the world can and must be carried out objectively. Biases and values must be eliminated as much as possible. The quantitative approach has the following major characteristics:

First, the goal is to search for causes of phenomena. Such a search is possible because it is assumed that the world has an order that can be discovered, such that what goes on in the world can be explained and predicted. In other words, quantitative researchers strive to identify factors that lead to certain events.

Second, deductive logic is used for knowledge building. The deductive approach usually begins with a problem and hypotheses or questions deduced from theory, and ends in a conclusion when the hypotheses or questions are compared with empirical data.

Third, quantitative data are usually collected. To gather quantitative data, categories of the phenomenon under study are created prior to investigation. Numbers are assigned to these categories, which are then statistically analyzed. A good quantitative study also requires that the measures are reliable and valid.

Fourth, it is required that large numbers of subjects be studied, because a central concern is that the results of the research can be generalized to as large a group as

possible. Thus, a good quantitative study depends on the generalizability of the description it produces. For the findings to be generalized, the subjects being studied need to be representative of the groups to which the researcher wants to generalize the findings. Probability sampling methods are usually employed to ensure this representativeness.

In sum, the quantitative approach stresses the development of knowledge through an emphasis on objectivity and the absence of the researcher's values in drawing conclusions. Careful, standardized measurement of variables, controlled situations, and complex statistical analysis are often components of quantitative designs.

However, there are challenges to the appropriateness of quantitative research methods. One major challenge comes from the argument that objectivity is an unattainable goal because knowledge and values are intertwined in human thought and thus hardly separable. Another criticism comes from the question of whether the quantitative methods are applicable when studying human beings. The argument is that, most quantitative methods emphasize determining how things actually are, and as such, they are not effective ways of learning people's experiences and the subjective meanings of their experiences.

The other approach is qualitative. This approach seeks to understand human experiences from the perspective of those who experience them. This approach emphasizes the building of knowledge through interpretation. In this interpretive approach, reality is based on people's definitions of it, rather than on something externally present. The subjective experience is what needs to be studied, rather than the objective one. Also, people's behaviour cannot be observed objectively. Bias and values are explicitly acknowledged rather than ignored. The qualitative approach has the following major characteristics:

First, the goal is primarily description rather than explanation or prediction. Because of the assumption that reality is socially constructed and is in a state of being mutually shaped, causes cannot always be definitively established. Instead the interactive reality is discovered and described.

Second, inductive logic is used to build knowledge. The inductive approach begins with a problem and observations, and ends with pattern finding and generalization. For example, school truancy may result from teachers' failures to appreciate the children's difficulty in making the transition from home to school. In this approach, a theory is built from observations, rather than developed through generating questions that are then answered through observations.

Third, qualitative data are collected. Qualitative information involves the nonnumerical examination of phenomena, using words instead of numbers, and focuses on the underlying meanings and patterns of relationships. Analysis of qualitative information consists of creating categories after the verbal material has been collected.

Fourth, the number of subjects in the study is often small, because the focus is on collecting in-depth information from each subject so as to understand the subjects' subjective experience of the phenomena under study.

Diversity in research methodology, as presented in the two approaches presented above, has often been perceived as differences in quality. The advantages and disadvantages of the two approaches have been a topic of discussion in methodology literature (e.g., Bryman, 1988; Patton, 1990). However, the conflict about which approach is a better choice for a researcher is as old as the approaches themselves. Quantitative researchers stress the shortcomings of qualitative research and argue that quantitative methods are better than qualitative methods. In a similar fashion, qualitative researchers present their methods as the most appropriate form of research, for similar reasons. The most comprehensive coverage of the quantitative-qualitative debate is provided in response to the long-standing antagonism between the quantitative and qualitative researchers in evaluation (Reichardt & Rallis, 1994). Yet, the debate suggests that there is no 'right' methodology to the research undertaking. Quantitative and qualitative methods are used according to the type of question being asked, the type of information required, and the level of knowledge we have about the area of study.

The decision to adopt the quantitative approach of inquiry in the present thesis was based on the following grounds:

First, deductive logic is used to build knowledge about school truancy. The study goals were deduced from theory.

Second, the goals of the present study suggest the need for information that goes beyond the particular to the general. The answers need to be as generalizable as possible.

Third, the focus is on accurate and precise description of school truancy – i.e., description of the relations among school children's family and school experiences, their orientation of locus of control, their patterns of attribution, and their truancy status. The intent is to produce information that is as objective as possible so that the information can form a basis for explanation.

Fourth, knowledge exists about how the relevant concepts can be measured. With the availability of measuring tools for the concepts such as locus of control and attributional style, it is reasonable to measure them quantitatively. As a matter of fact, the theory of learned helplessness was developed using the qualitative approach. It was only after the theory was developed through qualitative observation that the theory was tested using a quantitative approach. Thus the generation of knowledge on attributional style has undergone the cyclical process, with both approaches integral to the development of the concept and theories.

In the subsequent presentation, the procedures of a quantitative study are described and discussed in the context of the present thesis.

### Sampling and research design

The research subjects for the study, as originally planned, are children attending the Lower Forms of secondary school in Hong Kong. The decision to choose this group for study is based on policy consideration as well as their developmental implications. First, the education policy in Hong Kong, which aims to pursue equality of educational opportunity for youth, offers a universal, free and compulsory education to students up to Form 3, or when they reach age 15. In view of this policy, a study of school truancy in the Lower Forms will have implications for education policy. Second, children of this

age group, who have entered a period of adolescence with conflicts and crisis, may encounter more problems and difficulties in adapting to the demands of secondary school. If school truancy is a manifestation of school adjustment problems, there is reason to expect that peak involvement in school truancy would coincide with the years of compulsory schooling. Available statistics suggests that this is indeed the case.

Secondary schools in Hong Kong are generally grouped into three types according to financial sources: Government, Subsidized/Aided, and Private. The schools are streamed into five “bands” with “band 1” schools being the high achievement schools, “band 5” schools the low achievement schools, and other “bands” falling in between.

In view of the need for a good description of the school truancy phenomenon, it is necessary to ensure that the research findings can be generalized to the population of children of the Lower Forms. As generalizability requires that a probability sample of the population is studied, the different methods of probability sampling must be examined. These methods, including simple random sampling, systematic sampling, stratified sampling and cluster sampling, have been described in numerous textbooks in research methodology (e.g., Bryman, 2001; Cohen, Manion, & Morrison, 2001; Gorard, 2001; Nachmias & Nachmias, 1996).

### Simple random sampling

In simple random sampling, we first identify every sampling unit and then choose the units on the basis of a random procedure so that every unit has an equal chance of being chosen. For example, with the availability of a sampling frame of Lower Form children, a simple random sample can be obtained by random selection of subjects with equal probability.

### Systematic sampling

An alternative to simple random sampling is systematic sampling. In systematic sampling, we simply select every  $n$ th units sequentially from a sampling frame. The selection is done by counting, without numbering all the sampling units as in simple random sampling. Systematic sampling is often employed when simple random



### The ideal sampling and research design

The sampling design intended to be used in the present study is one that will yield a representative sample of Lower Form children in secondary schools. The sample should represent children of each type of school, each banding of school, and each of the Lower Forms. Such a representative sample calls for the employment of multistage sampling method which involves sampling children using a combination of probability sampling procedures.

The first stage involves taking a stratified sample of secondary schools by type and banding. In this stage, schools are randomly selected from each of the 15 strata formed. If one school is to be selected from each stratum, this procedure will result in a total of 15 schools with 3 schools to represent each banding. The second stage involves taking a random selection of classes to represent each of the Lower Forms in each school. If one class is to be randomly chosen from each Form, this stage of sampling will yield 15 classes for each Form. With a total of 45 classes and a maximum classroom capacity of 40 students, the multistage sampling procedure will give a maximum sample of 1,800 children.

As initially conceived, an adequate test of the theoretical content of the present thesis calls for a research design to compare truancy between bands of schools and to cross-compare truants with non-truants coming from different bands. This research design will take the form of a 5 (banding of school) x 3 (Form) x 2 (Truancy status) factorial design. The implementation of this design is made possible with the adoption of the above sampling strategy which will generate 9 classes to represent each school banding, and 5 classes to represent each Form. This design will yield generalizable results to describe school truancy in the Lower Forms of secondary schools in Hong Kong.

### Measurement

With reference to the goals of this study, a number of variables were examined. These variables included truancy status, locus of control, attributional style, and a group of variables labeled under family and school experiences. These variables and their

measurement are described in detail below:

### Truancy status

Truancy status consists of two categories representing truants and non-truants. A truant is defined as a "Lower Form" student in secondary school who has been deliberately absent from school for any number of days in a school year without knowledge or consent of the parents or school authority; whereas a non-truant is a regular attender who does not have any illegitimate absence.

The official school attendance records appear to be the most effective means of identifying truants and non-truants. However, May (1975), Reynolds et al. (1980) and Reid and Kendall (1982), among others, have raised considerable doubt concerning the validity and reliability of official registers as accurate measures of school attendance. As Reid and Kendall (1982: p. 296) noted:

"... valid and reliable measures of attendance are very difficult to obtain and interpret. In particular, absence figures which are based on school registers are notoriously unreliable ..."

The major source of measurement problem arises from the fact that students may be marked as present when they are actually absent or that they leave the school immediately following the marking of attendance rolls. As Coventry et al. (1984) suggest, official school attendance records may be considered as a measure of school detection of non-attendance behaviour of students, but not a measure of the extent of occurrence of such behaviour in any given school.

In this thesis, respondents' self-reports were used as a measure of non-attendance behaviour. Despite the possibility of under-reporting, self-report measures are considered as a method for capturing non-attendance behaviour which cannot be found in attendance records.

Respondents were asked to self-report the extent of non-attendance behaviour in the past school year immediately prior to the time of data collection. The following response categories were used for recording truancy: never, 1 to 6 days, 7 to 13 days, 14

to 20 days, and 21 days or more.

To differentiate between "truants" and "non-truants" in terms of locus of control and attribution, two measures were employed: the Nowicki-Strickland Locus of Control Scale for Children (Nowicki & Strickland, 1973) and an adapted questionnaire to measure attributional style.

#### *The Nowicki-Strickland Locus of Control Scale*

The Nowicki-Strickland Locus of Control Scale (Nowicki & Strickland, 1973) is the best-known instrument for measuring locus of control for children (CNS-IE). The CNS-IE scale has closely followed the format of the I-E scale (Rotter, 1966), but has a reading level which would allow easy administration across a wider age range of children than the I-E scale. As stated by Gilmor (1978: p. 8), the CNS-IE scale is "the most attractive choice for measurement of generalized locus of control expectancies for efficiency of administration and continuity for different ages."

The CNS-IE scale is a 40-item questionnaire presented in a two-dimensional forced-choice format. Items were derived from Rotter's (1966) definition of the internal-external control of reinforcement dimension and designed to be readable at the fifth-grade level, yet appropriate for older students (Nowicki & Strickland, 1973).

The CNS-IE scale has been found to be reliable and valid. Certain relationships hypothesized as necessary for the measure to be considered appropriate were met in the standardization of the scale: a) scores became more internal with increasing age; b) scores were related to achievement with internals achieving more than externals; and c) scores were not significantly related to measures of social desirability or intelligence.

The scale began with a construction of 102 items based on Rotter's definition. These items were given to a group of nine clinical psychology staff members who were asked to rate the items in the external direction. Items on which there was not complete agreement were dropped, leaving 59 items in a preliminary form of the scale. Further analysis led to the measure consisting of 40 questions that are answered either yes or no by placing a mark next to the question.

Nowicki and Strickland (1973) reported moderately high estimates of internal consistency via the split-half method, corrected by Spearman-Brown. For grades 9, 10, and 11  $r = .74$ ; for grade 12  $r = .71$ . In grades 3-6 internal consistency was in the .60's.

Test-retest reliabilities for high school students were reported as .71 for the tenth graders tested six weeks apart (Nowicki & Strickland, 1973) and as .76 for twelfth-graders tested over five weeks (Nowicki & Roundtree, 1971).

Evidence for construct validity is also reported by Nowicki and Strickland (1973) but for the elementary school sample only. In a sample of black seventh graders there were significant correlations with the I+ scores, but not with the I- scores on the IAR Scale (Crandall, Katkovsky, & Crandall, 1965). In a sample of nine to eleven-year-old white children correlations with the Bialer (1961) Scale was also found to be significant. In a study of 224 Chinese adolescents aged 15 years old in Hong Kong (Leung, Salili, & Baber, 1986), locus of control as measured by the Nowicki-Strickland Locus of Control Scale was found to be significantly correlated with adolescent problem and self-esteem in the expected direction. These findings, as suggested by the researchers, indicate that the scale is valid for use in Hong Kong.

For the purpose of this thesis, modification to one scale item has been made to take into consideration the adaptability of the item to the local context. "A four leaf clover" in the question "if you find a four leaf clover do you believe that it might bring you good luck ?" is hardly comprehensible to Chinese respondents as meaning "good luck". This question has been modified by replacing "a four leaf clover" by "a lucky star" in order to make it more culturally relevant.

To follow the original response mode, the questionnaire is answered by marking either yes or no next to the question, and the items are scored in the external direction. As shown in Appendix 1, for 25 questions of the CNS-IE scale, a "yes" answer to each question indicates externality; and for each of the remaining 15 questions, a "no" answer to the question indicates externality. A total score is computed by adding the scores of the individual items. The higher the total score, the more external an individual's locus of control orientation will be.

### *An Adapted Attributional Style Questionnaire*

The Attributional Style Questionnaire (ASQ) is a self-report questionnaire originally used by Seligman, Abramson, Semmel, and von Baeyer (1979) and later described in detail by Peterson et al. (1982). The questionnaire consists of twelve open-ended questions and the subjects were asked to generate the major cause for each of the twelve events. Six of the hypothetical events consist of bad events, and the other six good events. Additionally, half the events are achievement-related, while the other half are affiliative or interpersonal in orientation. Thus, there are four sets of hypothetical events: 1) affiliative events with good outcomes; 2) affiliative events with bad outcomes; 3) achievement-related events with good outcomes; and 4) achievement-related events with bad outcomes.

Affiliative events with good outcomes include: you meet a friend who compliments you on your appearance; you do a project that is highly praised; and your spouse (boyfriend or girlfriend) has been treating you more lovingly. Affiliative events with bad outcomes include: a friend comes to you with a problem and you don't try to help; you meet a friend who acts hostilely toward you; and you go out on a date and it goes badly.

Achievement-related events with good outcomes include: you become very rich; you apply for a position that you want very badly (e.g., important job, graduate school admission) and you get it; and you get a raise. Achievement-related events with bad events include: you have been looking for a job unsuccessfully for some time; you give an important talk in front of a group and the audience reacts negatively; and you can't get all the work done that others expect of you.

The subjects were asked to generate a major cause for each event and then to rate the cause along 7-point scales corresponding to the internality, stability, and globality dimensions. Internality measures the extent to which the cause rested in the subjects themselves or other people or circumstances. Stability indicates whether the cause would again be present in the future when the difficulty was experienced. Globality indicates whether the cause affected only this area of difficulty or whether it affected other areas of their life. The advantage of this format is that it does not constrain or create the causal attributions made by the subject but at the same time allows simple and

objective quantification of responses (Peterson et al., 1982).

The three attributional dimension rating scales associated with each event description are scored in the directions of increasing internality, stability, and globality. The higher the ratings, the more internal, stable and global the causal explanation will be. A composite explanatory-style score can be obtained by combining scores from the three dimensions.

In a review of the available evidence, Tennen and Herzberger (1986) concluded that the ASQ is valid and reliable, and is easy to complete by a variety of research subjects. The test-retest reliability coefficients of .60 or above over periods of weeks to months indicate that the ASQ is reasonably stable over time. The internal consistencies for the composite scores are satisfactory, with alpha coefficients of .70 or more. The reliabilities of the individual dimensions of ASQ are moderate, with alpha coefficients ranging from .40 to .70, but as a result of increasing the number of events for which causes are offered (Peterson & Villanova, 1988), these coefficients were bolstered to the .70 to .85 range.

By showing that the ASQ yields scores that are related as expected to a variety of other variables, Peterson et al. (1982) concluded that the ASQ has considerable construct, criterion, and content validity. Subsequent validation work using the multitrait-multimethod matrix procedure (Anderson, Jennings, & Arnoult, 1988; Cultrona, Russell, & Jones, 1985) also provide supportive evidence of convergent and discriminant validity for attributional style.

However, attributional style is not as general or cross-situationally consistent as originally thought and neither is it so situationally specific as to cease being a meaningful individually different construct (Anderson et al., 1988; Cultrona, Russell, & Jones, 1984). Furthermore, causally ambiguous events may constrain the subject's explanations (Peterson, Maier, & Seligman, 1993). For this reason, an event which is completely irrelevant to the subject will cause distortion in the subject's explanations. Furthermore, the choice of hypothetical events must be carefully guarded by the possibility of people not offering spontaneous causal explanations (Wortman & Dintzer, 1978) unless the events they encounter are aversive, surprising, and/or unusual that

elicit an "attributional search" (Wong & Weiner, 1981). As noted earlier, such events are exactly the kinds of events that should produce learned helplessness.

The ASQ will be fraught with the above limitations when it is adopted for use in this study. Most of the hypothetical events of the ASQ are completely irrelevant to the research population. As a matter of fact, the ASQ has been employed successfully only with college students (Peterson et al., 1982), clinically depressed individuals (Raps et al., 1982), and adults undergoing various stressful events (O'Hara, Rehm, & Campbell, 1982; Manly, McMahon, Bradley, & Davidson, 1982).

The author's concern with the cultural relevance of the ASQ and its adaptability to children has led to the decision of not choosing it as a measure of attributional style in this study. Rather, an Attributional Style Questionnaire was constructed using twelve adapted events which are considered as a more relevant and valid measure of the attributional style of the secondary school truants and non-truants in Hong Kong.

In order to ensure sub-cultural relevance of the adapted events, the choice of events was made with reference to pertinent literature as well as existing tools for measuring children's perceived control over school performance (e.g., Connell, 1985; Meier & McDaniel, 1974) and quality of school life (Ainley, Reid, & Miller, 1986). All these tools have highlighted the importance of sensitivity to both developmental and environmental influences on children's understanding of the reasons for their successes and failures in school, and have included the cognitive and social domains of behaviour as major dimensions of assessment.

As a further attempt to choose events that are more situationally specific and with the possibility of subjects offering spontaneous causal explanations, the author also conducted in-depth interviews with three truants who were under the care and supervision of a boys' home - a temporary accommodation facility for children under the provision of the Care and Protection Order. The social worker in charge of the facility was briefed on the rationale for a study of school truancy and the criteria of selecting the truants for an interview. Three children, who were considered by the social worker in charge as meeting the selection criteria, were chosen for an interview. The selection criteria were that the children must have had a history of truancy, and were

studying in a lower form of secondary school at the time of admission to the facility. An interview guide was employed, listing in outline form the topics and issues to be covered in the interview. The topics and issues included the academic and social aspects of school life; likes and dislikes about school; and reasons for playing truant from school. The responses to the interviews indeed substantiated the importance of the cognitive and social domains of school performance for the study of school truancy, and were useful as a guide for finalizing the events to be included in the Attributional Style Questionnaire.

What the author aimed to achieve was a domain-specific measure of attributional style. The major advantage of a domain-specific measure is that the events would be highly specific to the outcomes to be predicted. It is hoped that the adapted measure will enhance the prediction of truanting behaviour of secondary school students in Hong Kong.

The Attributional Style Questionnaire developed by the author closely follows the Peterson et al. ASQ model. There are four sets of adapted events: 1) affiliative events with good outcomes; 2) affiliative events with bad outcomes; 3) achievement-related events with good outcomes; and 4) achievement-related events with bad outcomes. Achievement represents the cognitive domain; whereas affiliation represents the social domain.

Affiliative events with good outcomes include: your teacher treats you more fairly in school; your classmates are treating you more nicely; and your teachers and classmates think that you're important. Affiliative events with bad outcomes include: you get physically hurt by other kids in school; you're punished by your teacher for doing something wrong; and you want to play with a kid in school and he does not want to play with you.

Achievement-related events with good outcomes include: you obtain a good grade from a school examination; you try to figure out the answer to a difficult problem in mathematics and you make it; and you are able to complete your homework without any difficulty. Achievement-related events with bad outcomes include: you take a test, and it goes badly; you can't get all the studies done for an examination; and you answer



questions in class and your classmates laugh at your answers.

As can be seen, the ASQ is composed of 12 hypothetical events representing 2 types of outcomes (i.e., good/bad) and 2 types of tasks (i.e., achievement/affiliation). Each event is followed by a series of 3 questions arranged in the same order measuring three attributional dimensions. One question measures whether the subject's response is internal or external. Another question measures whether the subject's response is stable or unstable. The last question measures whether the subject's response is global or specific.

For each question, subjects marked an answer in the range of 1 to 3. The scoring is in the direction of internality, stability, and globality. A score of 1 is the lowest, whereas a score of 3 is the highest. As a result, each subject receives 3 dimension scores for each event to represent internality, stability, and globality. A three-point scale was considered as more appropriate and easier to answer by truants than a seven-point scale given that their cognitive ability is generally low. This decision was based on the results of the pilot study to be described later.

### *Family and school experiences*

Review of literature on school absenteeism has shown that truants have experienced prolonged stress resulting from difficulties in coping with a set of demands imposed by the family and school environment. For example, Galloway (1982) reported that parents perceived three stressful conditions as contributing to their children's absence: fear of a particular teacher, dislike of a particular subject in the curriculum, and difficulty in social relationships with other pupils. The local study of school non-attendance (Yim, 1984) also found that dislike of schoolwork and difficulty in relating to teachers were sources of dissatisfaction for the school dropouts when they were in school. A more recent local study of quality of school life in three "band 5" schools (Pang, 1999) also showed that the "band 5" students perceived having poor teacher-student relations, poor social relationship with other people, and a low sense of self-motivation in study, and were inclined to view schooling as irrelevant to their future. More importantly, an imbalance of demands and resources, particularly in the cognitive and social domains of behaviour, may result in children's beliefs about being a failure and that one's actions

essentially are unrelated to the consequences that are experienced.

In the present study, family and school experiences are seen as having a mediating influence on school absence behaviour. The family and school experience measures were deducible from theories of adolescence and empirical literature on school truancy. Most of the measures were based on children's perceptions or subjective feelings about their experiences. As Asher, Hymel and Renshaw (1984) correctly point out, perceptions of social experiences are subjective, and the use of subjective measures is far from perfect. Available local measures with apparently sound psychometric properties were too lengthy to be administered in a normal class period together with the measures of locus of control and attribution. Instead, the author developed a number of questions which were easy enough to be answered by school children. The use of these questions, even though being far from perfect, is justifiable as a beginning effort to measure children's perceptions about their subjective experiences.

Family experiences refer to relationships with parents and relationships with siblings which indicate family relations. The index of family relations developed by Hudson (1982) was explored for adoption in this study. However, despite its adequate psychometric properties, it is too lengthy to be employed given the time constraints imposed on classroom administration. The decision was to use two subjective measures as proxy measures. Consequently, relationship with parents is tapped by the question: "Generally, would you say your relationship with parents is very good, good, poor, or very poor ?" Relationship with siblings is measured by responses to the question: "Generally, would you say your relationship with siblings is very good, good, poor, or very poor ?".

School experiences include relationships with classmates, relationships with teachers, perceived value of schooling, academic self-evaluation, and problem behaviours in school.

The measures of relationship experiences and perceived value of schooling were derived from Pang's (Pang, 1999) five areas of student experience which measure students' general well being at school. The five areas of student experience include teacher-student relations, social integration, opportunity, achievement, and adventure.

Teacher-student relations refers to the adequacy of interaction between teachers and students; social integration refers to students' relationships with other people and classmates; opportunity refers to a belief in the relevance of schooling; achievement refers to a sense of being successful in school work; and adventure refers to a sense of self-motivation in learning and a sense that learning is enjoyable for its own sake. Instead of adopting the entire set of items, one question each was used for measuring teacher-student relations and social integration; and four questions were developed for measuring the other three areas but conceptually labeled as perceived value of schooling.

Relationship with classmates is based on the responses to the question: "Generally, would you say your relationship with classmates is very good, good, poor, or very poor?" Relationship with teachers, on the other hand, is tapped by the question: "Generally, would you say your relationship with teachers is very good, good, poor, or very poor?".

Perceived value of schooling was indicated by responses to the following questions: "How often do you feel that schooling is a good preparation for your future?", "How often do you feel a sense of being successful in schoolwork?", "How often do you feel that school is a place that motivates you to learn?", and "How often do you feel that learning is enjoyable for its own sake?". The questions were measured on a five-point scale with a score of 1 assigned to 'rarely or none of the time', 2 to 'a little of the time', 3 to 'some of the time', 4 to 'a good part of the time', and 5 to 'most or all of the time'.

Coopersmith (1970: p. 245) defines self-esteem as "... a comparison of one's actual performance and capacities with one's personal standards and aspirations". In other words, Coopersmith expresses self-esteem as the individual's achievements in relation to his or her expectancies. In this thesis, academic self-evaluation involves a comparison of an individual's academic performance with his/her classmates serving as a standard. Academic self-evaluation is the evaluation the respondent makes of himself/herself in relation to academic abilities. It is a school-related aspect of self-concept which may have an influence on truancy. The respondents were asked to compare themselves with classmates on three core subjects of the secondary school curriculum: English usage, Chinese usage, and Mathematics. The answers were solicited by the following question:

“Would you please rate your performance in the following subjects in comparison to other students in your class. Would you say you perform below average, average, just above average, or much better than average ?”.

Problem behaviours in school include smoking, damage to property, habitual lateness for school, fighting, bullying other kids, possession of pornographic materials, stealing, cheating in test/examination, skipping classes/lessons, use of foul language, and taking drugs. These items of problem behaviours were taken from the Guidelines on school social work (Hong Kong Council of Social Service, 1980). Respondents were asked to self-report the extent of such behaviours for the past school year. A five-point scale ranging from 0 to 4 was used for recording each problem behaviour, with 0 indicating ‘never’, 1 ‘less than once per month’, 2 ‘once or twice per month’, 3 ‘once per week’, and 4 ‘more than once per week’.

#### *Personal and family characteristics*

In addition to the above list of variables, information will be collected on variables to describe the personal and family characteristics of the sample. The variables include Form, age, gender, religion, length of residence in Hong Kong, number of siblings, marital status of parents, education and occupation of parents, and type of accommodation.

Form is a nominal variable indicating which of the lower forms of secondary school the respondent is studying in (i.e., Form 1, Form 2 or Form 3). Age is an interval variable indicating the actual age of respondents. Gender is a dichotomous variable indicating sex of respondents. Length of residence in Hong Kong is represented by an interval variable indicating the number of years the subject has lived in Hong Kong. Religion is a nominal variable consisting of the following categories: no religion, Catholic/Christian, Buddhist/Taoist/Muslim and others.

Number of siblings is a ratio variable indicating the actual number of brothers and sisters. Marital status is a nominal variable consisting of the following categories: married, separated, divorced, widowed, and others. Type of housing is represented by a nominal variable with the following categories: public housing, private housing,

temporary housing, squatter area, and others.

Education of parents is a nominal variable consisting of the following categories: No formal education, primary school or below, secondary education, and further/higher education; whereas occupation of parents is a nominal variable consisting of the following categories: Professional and technical, administrative and managerial, clerical, sales, service, manual, and others. The information was collected from fathers and mothers separately.

### Reliability and validity of measurement

One of the criteria for a good description is that the measures being described are valid and reliable. To understand reliability and validity, the methods for assessing reliability and validity of a measurement must be described. These methods are essential features of the quantitative approach which are routinely described in literature on quantitative research methods (e.g., Bryman, 2001; Cohen, Manion, & Morrison, 2001; Nachmias & Nachmias, 1996; Tuckman, 1994).

### Reliability

Several methods are used to assess the reliability of a measure, the most common of which are the test-retest method, the split-half method, and the method of average interitem correlations.

In the test-retest method, the same measure is administered to the same people twice over a period of time. If the results of the two sets of scores are highly correlated, the measure is considered as reliable. This method is based on a stability interpretation of reliability, and is concerned with the extent to which the measure is stable over time. The split-half method offers an equivalence interpretation of reliability. This method involves administration of the measure to a group of respondents, random assignment of the items into two halves, and correlating the scores on the two halves to provide an estimate of reliability. A high correlation suggests that the two halves are equivalent, and that all the items are measuring the same concept. The average interitem correlation method, also known as the Alpha method, interprets reliability as internal consistency.

In this method, it is assumed that all the items within a measure are supposedly measuring the same concept. If the items are actually measuring the same concept, they should be positively correlated with one another. When the items are positively correlated, the measure is said to have achieved internal consistency.

In the present study, the split-half method was used to assess the reliability of the Nowicki-Strickland Locus of Control Scale (Nowicki & Strickland, 1973), and the Alpha method was used to assess the reliabilities of the indices of family and school experiences as well as the dimensional measures of attribution. No attempt was made to establish test-retest reliability due to the practical difficulties of a second administration of the questionnaire to the same group of subjects. These procedures and the results are reported in other parts of the thesis.

### Validity

Reliability is a necessary but not sufficient condition for a good measure. A good measure must be also valid. Validity refers to the extent to which a measure actually measures what it was designed to measure. There are different types of validity. Face validity is a logical type of validity. Content validity refers to the question of whether the items within a measure constitute a sample of contents which adequately reflect the meaning of a concept being measured. The problem with face and content validity is that validity depends on the subjective opinion of the researcher and an appeal to expert authority. The procedures previously described in the construction of the various measures for the present study can be seen as steps taken to ensure their face and content validity.

However, face and content validity provide only a starting point in evaluating a measure's validity. The ultimate test of validity involves the computation of a correlation coefficient referred to as a validity coefficient. The higher the coefficient, the more valid the measure will be. This type of validity, which may be labeled as empirical validity, consists of concurrent validity, predictive validity, and construct validity.

Concurrent validity involves the use of an existing, valid measure as a criterion against which the validity of a new measure is judged. A high correlation between the

two measures provides an estimate of the validity of the new measure. For example, correlating the locus of control measure with the measure of the locus of attribution may be considered as a procedure for establishing concurrent validity of the respective measures. Predictive validity is the extent to which a measure actually predicts something the measure is designed to predict. For example, if a measure of attributional style is designed to predict school truancy. If the measure has predictive validity, students with higher scores on the measure will be more likely to turn truants than those with lower scores. Another method of validation involves construct validity. Evidence of construct validity is based on a theoretically expected pattern of correlations between a new measure and existing, valid measures. The theoretical pattern suggests that they should, or should not be correlated. The procedures of validating the attribution measures, which consist of assessment of the discriminability of task types and consistency across outcome groups, are mainly concerned with construct validity. These procedures and the results are detailed in the discussion of the validity of the adapted ASQ.

### Research instrument

A research instrument is a tool for gathering responses from the respondent. A research instrument usually take the form of interviews or questionnaires (e.g., Bryman, 2001; Cohen, Manion, & Morrison, 2001; Nachmias & Nachmias, 1996; Tuckman, 1994).

The research instrument in the present study was a self-administered questionnaire containing the Nowicki-Strickland Locus of Control Scale for Children (Nowicki & Strickland, 1973), the adapted questionnaire to measure attributional style, children's family and school experience measures, as well as the respondent's personal and family characteristics. A self-administered questionnaire is filled out by the respondents themselves, and is distinguished from an interview schedule which is orally administered by an interviewer to the respondent.

The questionnaire was written in Chinese. However, the psychological measures adopted for use in the present thesis were translated into Chinese to facilitate more accurate responses from the Chinese respondents. These measures were firstly

translated into a Chinese version by a qualified translator with a B.A. degree in translation, and the Chinese version was then back translated into English by a different translator with the same academic qualification. Comparison between the English and Chinese versions of the measures led to the rephrasing of inappropriate items until no considerable discrepancies between the two versions were found. The two language versions of the questionnaire are provided in Appendix 5.

The use of a self-administered questionnaire and not interview was based on a number of considerations which are generally discussed in literature on research methods (e.g., Bryman, 2001; Nachmias & Nachmias, 1996). First, it permits classroom administration, so that it is a more effective and less costly means for reaching students who are difficult to locate and interview. Second, it ensures privacy and anonymity because no interviewer is involved. This may facilitate the respondent to give more honest answers, especially for sensitive questions. This also avoids interviewer bias which may occur as a result of halo effects. Third, a high completion rate is a clear advantage when a questionnaire is administered in class. Although student participation is voluntary, the majority of those present on the day of administration will participate. Lastly, data collection can be completed within a short period of time with classroom administration since there is no need for an extension of time for call-backs.

However, the disadvantages of a self-administered questionnaire are also noted (e.g., Bryman, 2001; Nachmias & Nachmias, 1996). One of the disadvantages is that when the respondent misinterprets questions or gives unclear or inappropriate answers, clarification or probing by the interviewer is not possible. Another disadvantage is the difficulty to include open-ended questions in a self-administered questionnaire because respondents may answer the questions with a different frame of reference in mind, thus leading to difficulties in interpretation and coding of these answers. Lastly, a shorter questionnaire had to be used in order to ensure that the questionnaire can be completed within a normal class period. Reduced length of a questionnaire would impose constraints on the number of questions or items that can be covered.

### Pilot study

Methodologists have emphasized the importance of conducting pilot studies prior to



the launch of the main study (e.g., Gorard, 2001; Nachmias & Nachmias, 1996). The purpose of the pilot study of the present thesis is twofold: First, it aimed to explore the possibility of sampling research subjects from different sources; and second, to explore the reliability and validity of the key measures and the cultural relevance of these measures to the Hong Kong context and to the problem of school truancy.

### *In search of a sampling strategy*

One of the purposes of the pilot study was to explore the possibility of taking a representative sample of Lower Form children in secondary schools. As mentioned earlier, such a representative sample could be obtained by a multistage sampling method which involves sampling school children using a combination of probability sampling procedures. The purpose was to ensure that truants and non-truants of each type of school, each banding and each of the Lower Forms are represented in the sample.

However, the difficulty of this sampling strategy, though being the most ideal, was anticipated due to the lack of information on the banding value of all schools in Hong Kong. Without the school authorities' willingness to reveal the banding status of their school, it is impossible for anyone to determine the banding of a school with accuracy. The way in which the banding value of a school is determined is described in Appendix 2.

Nevertheless, persistent attempts were made to seek support for the study from schools both in writing and by phone, with the hope to obtain a sample with the widest possible coverage of the different types of schools. However, most of the school principals were reluctant to reveal the school banding value of their school and to offer access to student samples. Among those schools which appeared to be willing to help, some reported only one or two truants and others reported none at all.

The reluctance of the school principals in Hong Kong did not come as a surprise at all. In Hong Kong, people are not as receptive to research and co-operative in granting access to samples as their counterparts in the West. With the Privacy Ordinance introduced in 1998 which sets out to protect individuals from the misuse of private information, people have become even more cautious. Although the Ordinance does not

prevent research to be carried out, it does affect people's willingness to disclose information. In seeking access to samples for the pilot study, the Ordinance was often used by schools as an excuse for not being able to help, for fear of having to take responsibility for releasing such politically sensitive information as school banding and truancy. Only with the help of a member of the Legislative Council that the author was able to obtain two "band 5" schools agreeing to participate.

The possibility of sampling truants from the caseload of the School Attendance Team of the Education Department was also explored despite the fact that it would result in a restricted sample. Had the Education Department agreed to be involved, the resulting sample, even though selected at random, would be restricted to truants who have had illegitimate absence from school for fourteen days or more, thus ignoring truancy of less than fourteen days. Furthermore, the sample had to be supplemented by a sample of non-truants to be recruited from other sources.

The last method was to recruit samples from the thirty Social Work Outreaching Teams in Hong Kong. Outreaching Social Work is a major youth service in Hong Kong. At present, Social Welfare Department and 8 non-government agencies are operating 30 outreaching teams, using 280 social workers in 30 designated high priority areas which account for almost 70 percent of Hong Kong's total population. Contacts with the team leaders indicated that the best to be expected would be three Outreaching Teams agreeing to be involved. Given the above considerations, the author had to turn his attention to the relative merits of sampling from the three Outreach settings, or from the two "band 5" schools that might become available.

The major advantage of choosing Outreaching teams as a contact point for recruiting subjects is that it offers an effective means for locating truants. Outreaching social work service mainly deals with youngsters who have socially undesirable behaviour. By reaching out to youngsters in their gathering places (e.g., playgrounds, corridors of housing blocks, fast food shops, game arcades etc.), an outreach worker starts off by making initial contact with them, and once initial contact is made, the task of the worker is to identify the characteristics and problems of the potential targets by associating with them once a week and to decide whether to open a case (Hong Kong Council of Social Service, 1993). A truant will become a case, and his/her truancy status will be verified

with the school by the worker; whereas a non-truant will become a case only if he/she has been identified by the worker as having other problems.

The major advantage of an outreach sample is that it would allow the sampling of truants and non-truants coming from the “non band 5” schools, and not just “band 5” schools so that “band 5” subjects could be compared with those falling into other bands. However, this sampling strategy has its weaknesses. Given the fact of only three outreaching teams agreeing to participate, only those schools located within the designated service boundaries would be included. This will impose limits to making generalization to all truants and non-truants. Related to the concern of generation is the possibility of obtaining a non-truant sample with special characteristics which may not be found in samples recruited from other contexts such as the school. Although only the “non-case non-truants” would be selected, there is no evidence to indicate that these non-truants possess similar characteristics that make generation to all non-truants possible. On the other hand, the advantage of sampling from two “band 5” schools would be that interschool variables beyond those of banding could be controlled for so that truants and non-truants could become more comparable. However, the weaknesses are twofold. First, comparison across bandings would be impossible. Second, the number of truants identified from only two schools may be too small for the purpose of comparison with non-truants.

Having considered the pros and cons of each sampling method, the decision was made to employ an Outreach sample for the pilot study and, if possible, also for the main study. With only two “band 5” schools agreeing to participate in the main study, there appeared to be no other choice but to use an Outreach sample.

#### *Piloting the research instrument*

Another purpose of the pilot study was to explore the reliability and validity of the CNS-IE scale and the adapted ASQ in order to identify cross-cultural problems in transferring these instruments to the Hong Kong context and/or the study of truancy. This aspect of the study is not easily amenable to change, given the fact that the instruments are the only available tools. This piloting is an important part of the process not only for the purpose of this research, but can be regarded as field testing the key

instruments within the Hong Kong context. It is hoped that these instruments, being adapted for use for the first time in Hong Kong, can have utility for future researchers who are interested in this aspect of the study.

The use of double translation is an attempt to check for difficulties, but this is not sufficient to ensure that the instruments are culturally and sub-culturally relevant. It was reported earlier that the CNS-IE scale was claimed to be valid for use in the Hong Kong culture in a study of 224 Chinese adolescents aged 15 years old in Hong Kong (Leung, Salili, & Baber, 1986). Despite this claim, the researchers did not report its psychometric properties when used with this sample. Furthermore, the change of one of the items in the CNS-IE scale to make it more culturally adaptive may pose a threat to the reliability and validity of this instrument. Similarly, the use of more culturally relevant and situationally more specific items in the ASQ is justifiable, but this raises concern about the extent to which the adapted events really represent discrete events which are of most importance to the research population. Even though the adapted events were developed with reference to literature and on the basis of in-depth interviews with three children with a history of truancy, there is still no guarantee that all of the hypothetical events are relevant to both truants and non-truants.

In view of the above, it would be useful to have a reliability check on the instruments before using them with the whole sample. The reliability issue may be further demonstrated and investigated when the results of the pilot study are analysed.

In addition to the potential problems mentioned above, other potential sources of error also have to be dealt with. One source of error may have to do with the original yes/no response format of the CNS-IE scale. This format has proved to work well with children, but whether this mode of response would work equally well with such a sensitive and failing population has to be subject to empirical test. Another source of error may be due to the ways in which the adapted ASQ examines the causal factors. Questions which are not understandable and meaningful to the subjects would be quite difficult to respond to. Furthermore, responding to some of the adapted events may create an emotionally upsetting and disturbing experience for the truants because of the sensitive and emotional nature of the questions.

### Procedures of the pilot study

In the summer of 1999, with the help of the author's students who work in outreaching settings, the author managed to obtain assistance from teams in 3 places to conduct the pilot study. Each team was asked to identify the potential subjects. A truant was a junior form student of a secondary school identified by the outreach worker as a truancy case requiring service; whereas a non-truant was a junior form student of a secondary school identified by the outreach workers as a non-case due to the absence of truancy record and other problems specified in the guidelines of Outreaching Social Work practice (Hong Kong Council of Social Service, 1993). Having identified the potential subjects, an invitation was sent to each for a tea gathering in the evening. About thirty invitations were sent by each team, and each time about a dozen children attended.

A research assistant with a B.S.W. degree and training in research methodology and interviewing was employed for the administration of the questionnaire. Prior to the tea party, the research assistant explained the purpose of the research and solicited co-operation from the children for filling out the instructions which are printed on the front page of the questionnaire. The instructions informed children of the emotional nature of the questions; that their participation was entirely voluntary and could be terminated at their own will at any point for any reason; and that any information obtained will be kept strictly confidential.

Each time all children consented to participate, and the questionnaire was carefully administered to the groups under the supervision of the team leader and research assistant in the meeting room, with the research assistant reading out aloud each question and giving the children sufficient time to answer.

A total of 35 questionnaires were completed. Each time it took about 40 minutes to complete, and towards the end some of the children began to get impatient and restless. The questionnaires of these children were dropped from the analysis in order to ensure the quality and honesty of the responses.

A total of 26 questionnaires completed by children who are still in school were

analyzed; 16 were truants and 10 were non-truants.

### Result of the pilots study

As aforementioned, one major purpose of the pilot study is to explore the reliability and validity of the CNS-IE scale and the adapted ASQ. To establish reliability of these measures, the split-half method was performed on the CNS-IE scale; whereas test of internal consistency using the Cronbach Alpha was performed on the adapted ASQ. No attempt was made to establish test-retest reliability due to the practical difficulties of recruiting the same group of subjects for a second administration of the questionnaire. As for validity, correlational analyses were performed on these measures in order to determine the extent to which the observed patterns of their intercorrelations conformed to the predicted patterns.

The split-half coefficient of the CNS-IE scale was 0.74. A respectably high coefficient suggested that the yes/no response format was culturally adaptive and seemed to work equally well with a truant population. As for the adapted ASQ, reliability analyses were performed according to the following groupings: (1) 2 outcome groups (i.e., good/bad) with 6 events each; (2) 2 task groups (i.e., achievement/affiliation) with 6 events each; and (3) 4 outcome-task groups (i.e., good/achievement, good/affiliation, bad/achievement, bad/affiliation) with 3 events each. The groupings provide a basis for calculating for each attribution dimension (i.e., internality, stability, and globality) alpha coefficient for each type of outcomes (i.e., good/bad), each type of tasks (i.e., achievement/affiliation), and each outcome-task combination (i.e., good/achievement, good-affiliation, bad/achievement, and bad-affiliation). Appendix 3 shows the groupings and number of events for the construction of the dimension measures as well as the dimension reliabilities and intercorrelations.

The results showed that measures of the attribution dimensions for the two outcome groups achieved reliabilities ranging from .42 to .68, which are more or less the same as those reported for the original ASQ (Peterson et al., 1982; Tenn & Herzberger, 1986). As for the outcome-task combinations, reliabilities were found ranging from .05 to .61, as compared to a range of .21 to .53 for the original ASQ (Peterson et al., 1982).

Evidence of discriminability of task types was revealed by correlating scores of internality, stability, and globality for achievement tasks with the respective scores for affiliation tasks (separately for good and bad outcomes). Only two of the correlations were not statistically significant. The correlations with a mean of .47 and a range from .09 to .68 were quite similar to those reported by Peterson et al. (1982), indicating the failure to distinguish achievement tasks from affiliation tasks. As argued by Peterson et al. (1984), this failure to distinguish achievement from affiliation items may not be a fault of the scale, but an actual failure of discrimination by the research subjects. In the same vein, affiliation may be viewed in achievement terms by the pilot subjects, and their attributions about affiliation may overlap greatly with their attributions about achievement.

The above results indicate that the three-item subscales measuring internality, stability, and globality for achievement tasks and affiliation tasks are not sufficiently valid to be useful in prediction. With the lack of evidence of discriminability of task types, Peterson et al. (1982) suggested not to bother making a distinction between the achievement and affiliation items, and that prediction from the ASQ is likely to be improved by using the composite scores rather than the scores of the separate subscales.

Consistency across outcome groups was also checked by correlating the composite scores for good outcomes and bad outcomes. A significant correlation of  $-.55$  ( $p < .01$ ) was found, indicating an opposite attribution pattern for good outcomes and bad outcomes in the pilot sample.

Furthermore, significant intercorrelations were found among the attribution dimensions for both good outcomes and bad outcomes. The same findings have provided a rationale to other researchers for combining the individual dimensions into overall composites for good outcomes and bad outcomes, and for using the composite scores as a measure of an internal, stable, and global pattern of attribution. Specifically, Seligman argued for the a priori validity of composite scores by noting that reactions to stress and failure involve situationally and temporally global judgments (Tennen & Herzberger, 1986).

To further demonstrate the validity of the adapted ASQ, the CNS-IE was used as

criterion measures against which the validity of the adapted ASQ was judged. As expected, the composite score for bad outcomes was positively correlated with locus of control ( $r = .75$ ,  $p < 0.01$ ); whereas the composite score for good outcomes was negatively correlated with locus of control ( $r = -.64$ ,  $p < 0.01$ ). These findings suggest that pilot subjects with an external orientation of locus of control were more likely to attribute their bad experiences to internal, stable, and global factors. On the other hand, those with an internal orientation of locus of control were more likely to attribute their positive experiences to internal, stable and global factors. Furthermore, the results of comparing truants with non-truants on composite scores for bad and good outcomes indicate that the truants tend to explain their failures as due to internal, stable, and global factors; in contrast, the non-truants tend to explain their success as due to internal, stable, and global factors (Tam, 2001).

Nevertheless, the above findings are only suggestive. The pilot sample is clearly too small to adequately test the reliability and validity of the psychological measures. Furthermore, the major problem of the adapted ASQ, as revealed by respondents in the pilot test, was the difficulty of using a seven-point scale as a response format. As a result, the response format was restructured by replacing the seven-point scale by a three-point scale. In view of these problems, the need to address and re-examine the reliability and validity issues in a larger sample study becomes evident.

#### Redesign of the research

As stated earlier, the decision to abandon sampling from schools was due to the reluctance of school principals to release banding information and to grant access to student samples. The decision to use an Outreach sample was also based on the expectation that the outreach settings would allow for recruitment of truants from schools of different bandings, and not just "band 5" schools. However, this is only a sheer speculation. Even with an extension of the period of data collection (from September 1999 to June 2000), none of the truants recruited was from the "upper bands".

A further check on truancy of four "upper band" schools was made with the school principals whom the author has known since high school. According to them, truancy



rarely occurs in "non band 5" schools and, for this reason the initial objective to compare truants between bands of school is apparently asking for the impossible. There is no official record of truancy which can be consulted to see the extent of truancy in "non band 5" schools in Hong Kong; but according to the school principals, only 1 or 2 truants could be identified from their own school record. The report of these school principals and those schools which appeared willing to help suggests that truancy is almost non-existent in "non band 5" schools.

The evidence indicated that "band 5" schools is a context in which truancy undeniably exists and on a large scale. It is within this context that adolescents are at high risk of truancy. This led to the redesign of the research by restricting the truancy phenomenon to "band 5" schools, and to compare truants and non-truants within "band 5" schools.

### Selection of sample

Viewing truancy as a "band 5" phenomenon means that an Outreach sample is no longer an advantage as compared to a sample from "band 5" schools. The ideal sampling strategy is to randomly select classes in each Form from a cluster sample of "band 5" schools stratified by type of school (i.e., Government, Government subsidized/Aided and Private). With correct representation of Form and type of school, any differences attributable to these sources which may have some relationship to truancy and its level of incidence and causation would have been accounted for. This sampling strategy, if to be adopted, would require that a sampling frame of "band 5" schools is available. However, the lack of publicly accessible official record of "band 5" schools suggests that an exact enumeration of "band 5" schools is impossible.

In Hong Kong, "type of school" is a good indicator of a school's academic standing and reputation. Private schools are usually the most unpopular and most likely to be "band 5" schools. It was this consideration that the possibility of sampling from the member schools of the Association of Private Schools was explored. Contact was made with the Chairman of the Association to solicit his support for the study. However, the request was discussed, but was turned down by the school representatives in a Management Committee meeting of the Association. As a consequence, even though the

member schools can provide the best sampling frame available, it was impossible to use it for this research.

Nevertheless, the Chairman of the Association was kind enough to assist by giving access to two "band 5" schools. With the addition to the two "band 5" schools which had agreed to participate at the time the pilot study was conducted, sampling of research subjects for the main study was done in four "band 5" schools. These schools were located in different geographic areas; with one situated in Hong Kong Island, one in West Kowloon, one in East Kowloon, and one in the New Territories. These areas represent a good mix of neighbourhoods with a wide range of socioeconomic conditions.

The difficulty in gaining access to other "band 5" schools means that the resulting number of truants would be rather small. However, there is at least a clear advantage of restricting the sample to the four schools. With permission from the school principals, the truancy status can be crosschecked with school's attendance records. As previously mentioned, the Education Department in Hong Kong recommends all schools to follow a procedure of identification and reporting of truancy cases (Education Commission, 1992).

Each school has 5 classes in each Form, but the number of students in each class varied from one school to another. As mentioned previously, the elitist practice of the schools in Hong Kong results in "ability grouping" or the grouping of students to different classes based on their academic ability or prior performance. In any case, the "E" class is the one with students of the lowest ability and therefore the highest rate of school truancy. In order to recruit as many truants as possible from the four schools, an "E" class was selected from each Form in each school, resulting in a sample of 12 classes with 3 classes to represent each Form. This procedure yielded a total of 384 students of whom 119 (31.0%) came from School B; 103 (26.8%) from School A; and an equal number ( $N = 81$ ) came from School C and School D representing 21.1 percent of the total sample in each case. Of the 384 students, 129 (33.6%) self-reported as truants, but the majority of the truants were those who had been absent for 1-6 days and only 43 had been absent for 7 days or more.

This procedure of restricting the sampling of subjects from lowest ability classes of four “band 5” schools is a nonprobability procedure which included elements of both convenience and purposive sampling. It is a nonprobability sampling method because there is no way of specifying the probability for each sampling unit to be included in the sample, and there is no assurance that every unit has a known probability of being selected (e.g., Nachmias & Nachmias, 1996). It was a convenience sample because the four “band 5” schools were selected on availability; on the other hand, it was a purposive sample since only classes with the lowest ability were selected with the understanding that comprehensive information on school truancy could be obtained from the selected subjects.

Clearly, this sampling procedure may impose limits to the generalization of the research findings due to the lack of representation of students from other levels of academic abilities and other “band 5” schools. Even with only four “band 5” schools, sampling from a range of classes would be a better method for the selection of a more representative sample of subjects. However, if this sampling strategy had been employed, it would have yielded proportionally more non-truants with higher ability and proportionally less truants of whom the great majority were from lowest ability classes. Apart from the problem of a resulting sample of truants being too small to be compared with the non-truants, there would be an inbuilt bias towards a strong link between academic achievement and truancy in the comparison such that any observed differences between the two groups could have been confounded by differences in academic ability.

There was no perfect match of figures when crosschecking with schools’ attendance records. Of the self-reported truancy cases, only 93 were on record. Several explanations for the discrepancy between the school records and the self-reporting data are plausible. First, some truancy cases are marked as present when they are actually absent or that they leave the school unnoticed following the marking of attendance rolls. Second, the Education Department recommends the schools to follow a formal procedure to identify and report truancy cases (Education Commission, 1992), but the use of this procedure is customary, but not universal. The lack of enforcement against schools suggests the possibility of under-reporting of truancy cases. Similar measurement problems have been reported by other researchers (Coventry, et al., 1984;

May, 1975; Reynolds et al., 1980; Reid & Kendall, 1982) who raise considerable doubt concerning the validity and reliability of official registers as accurate measures of school absenteeism. Third, absenteeism for some number of students could have occurred prior to their admission or transfer to the present school. The records of such truancy cases were hardly traceable, and could be identified only through self-reports but not in the present school records. A further complication in the identification of truancy cases is that many of the cases marked absent in the attendance register carried no remarks to indicate the reason for absence. It was therefore difficult to verify the self-reported status of such students without knowing whether or not they had good reasons for not attending school. In the process of verification, 24 self-reported non-truant cases were found to have been marked absent in the attendance record, but there is no evidence to suggest the possibility of under-reporting by these students and that they should be re-classified as truants for the purpose of the present study. Given the above circumstances, self-report data were considered as a more appropriate measure to be employed for the identification of truancy cases which cannot be found in attendance records.

#### Data collection procedures

Data collection took place at in December of 2001 prior to the end of the first school term. For school record, a letter was sent to the principals of the four schools agreeing to participate before arrangement for the administration of the questionnaire was made. As shown in Appendix 4, the letter explained the purpose of the research and solicited assistance from the school principals to release class periods for students to take part in the study.

A research assistant with a B.Soc.Sc. degree and trained in research methodology and interviewing was employed for the administration of the questionnaire to each class. The administration was under the supervision of the class teacher. The presence of the class teacher was important for overseeing that the class was well behaved and under control during administration.

The research assistant began by explaining the study and soliciting support. Prior to administration, the students were alerted to the emotional nature of the questions and

informed of such rules as confidentiality, voluntary participation and termination at their own will. They were also informed of the possibility of being invited for an interview at a later date, but if they were unwilling to be interviewed, any of their personal data would be kept anonymous. All instructions were provided to the research assistant in the form of an introductory statement printed on the front page of the questionnaire.

In all cases, the research assistant read out aloud of the questions and explain the questionnaire clearly to the subjects, while the subjects read along and answer each question. On the average, the questionnaire took about 30 minutes to complete.

The data collected were subject to statistical analyses using the Statistical Packages for the Social Sciences (SPSS).

### Plan of analysis

The major purpose of statistical analyses was to address the stated goals of the present study which seek to identify differences between the truants and non-truants with respect to family and school experiences, locus of control and the dimension measures of attribution as well as the relations among these variables.

The steps of analyses will be presented first to provide an overview of the logic behind the analyses. The appropriateness of the multiple item approach to index construction and the application of parametric statistics on ordinal data will also be discussed prior to the presentation of the research findings. Before presenting the steps of analyses, we must first examine the levels of measurement and related scales.

### The levels of measurement

The levels of measurement are described and discussed in most basic texts on research methodology and statistics (e.g., Bryman & Cramer, 1998; Nachmias & Nachmias, 1996). The levels of measurement are important in relation to the use of statistics – a topic to be discussed later in the context of the analyses to be conducted in the present study.

There are four levels of measurement. The first level is called the nominal scale; it is the weakest level of measurement. In the present thesis, age groups, gender, religious affiliation, form, residential status, marital status, family type, and type of housing are nominal variables. A second level of measurement is called the ordinal scale. Ordinal scaling determines a relation between objects, events, people, or characteristics in terms of their being greater than, less than, or equal to one another on the basis of a selected criterion. In this study, all other variables are measured on an ordinal scale, including education and occupation of father and mother, perceived relationships with parents and siblings, perceived relationships with classmates and teachers, perceived value of schooling, academic self-evaluation, problem behaviour in school, locus of control, and measures of attribution. Levels of measurement also include the interval scaling and ratio scaling. The former measures the same characteristics as the ordinal scale but in addition, the distances between any two points on the scale are of known size; whereas the latter measures the same characteristics as the interval scale but in addition, there is a true zero point on the scale indicating the absence of a characteristic.

The steps of analyses are presented below.

### Steps of analysis

The first step of analysis involved the use of frequencies to describe the personal and family characteristics of the sampled children in terms of age groups, gender, religious affiliation, form, residential status, marital status, family type, type of housing, education and occupation of father and mother. Family and school experiences were also described in terms of children's perception of their relationships with parents and siblings, their perceived relationships with classmates and teachers, their perceived value of schooling, their academic self-evaluation, and their problem behaviours in school.

The second step of analysis involves crosstabulations on the personal and family characteristics as well as family and school experiences using Form, gender and truancy status as a grouping variable. The purpose was to provide a more adequate description of the sample characteristics and to add meaning to the contexts within which truancy may occur. The decision to treat Form and gender as key variables in the analyses was

based on the observation that both variables may be related to causal attributions. Crosstabulation is a method for demonstrating the presence or absence of a relationship between two nominal variables (Bryman & Cramer, 1998). For the purpose of hypothesis testing, the task is to indicate whether or not an observed relationship is statistically significant by the result of a Chi-square test. However, for the sheer purpose of description in the present analyses, the Chi-square tests were not performed.

The third step of analysis was undertaken before conducting the comparisons on status differences in family and school experiences, locus of control and dimensions of attribution. Specifically, this involved the assessment of the reliability and validity of the family and school experience measures, the locus of control measure (the Nowicki-Strickland Locus of Control Scale) and the adapted Attributional Style Questionnaire for the present sample of children. A reliability test was conducted on locus of control using the split-half method; whereas the reliabilities of the family and school experience measures and the attributional measures were determined by using the Cronbach Alpha method. The split-half approach is one in which items within a test are divided in half and scores on the two half-tests are correlated (Nunnally & Bernstein, 1994). In the case of the locus of control measure, the correlation between the internality items and the externality items provide a measure of reliability. In the Cronbach Alpha method, estimates of reliability are based on the average correlation among items within a test (Nunnally & Bernstein, 1994). The estimates give an internal consistency interpretation of reliability.

The last step of analysis, which aimed to identify status differences in family and school experiences, locus of control and the dimension measures of attribution as well as the relations among these variables, involved the use of the following statistical procedures:

First, a three-way analysis of variance was conducted on locus of control. In this analysis, truancy status, Form and gender were the independent variables, whereas locus of control was the dependent variable. Analysis of variance is an appropriate procedure for analyzing the independent effect of each independent variable as well as their interaction effects on a dependent variable (Bryman & Cramer, 1998). In the present analyses, this procedure was employed to answer the following questions: Does Form

relate to locus of control ? Does gender relate to locus of control ? Does truancy status relate to locus of control ? And are there any interactions between the effects of Form, gender, and truancy status ?

Second, multivariate analysis of variance was performed separately on the family and school experience measures and the attributional measures. Multivariate ANOVA studies the effect of one or more independent variables on a set of dependent variables simultaneously. In this thesis, the aim was to study the effect of Form, gender and truancy status on a set of family and school measures and a set of attribution measures. According to Bryman and Cramer (1988), analysing a set of dependent variables together has at least two advantages. First, it reduces the probability of making Type I errors when making a number of comparisons. Second, it provides a more sensitive measure of the effects of the independent variables. Thus, multivariate ANOVA has advantages over the popular approach of examining each dependent variable one at a time. George and Mallery (2003) mention two disadvantages when separate tests are performed. The first disadvantage is that the chance that one or more of the findings may be due to chance increases. The second disadvantage is that, when dependent variables are correlated with each other as in the present study, doing separate tests may not give the most accurate picture of the data.

Third, analyses were performed using the Pearson's Product-Moment Correlation method to describe the relations among family and school experiences, locus of control, attributions, and truancy status. The relations were shown by a series of two-tailed correlations conducted separately for locus of control and attributions as well as each status group. Pearson's Product-Moment-Correlation is a measure of correlation between two interval/ratio variables with information about direction (Bryman & Cramer, 1998).

As described above, the statistical analyses involved a truant and a non-truant group in seeking to identify status group differences with respect to family and school experiences, locus of control and the dimension measures of attribution as well as the relations among these variables. The truant group with which the non-truant group was compared included cases of "truancy" and "non-attendance" which describe two patterns of school absence behaviour in Hong Kong (Hong Kong Council of Social



Service, 1980). Specifically, the “truancy” cases refer to students with absence from school for less than 14 days in a school year without knowledge or consent of their guardians/parents or school authority; whereas the “non-attendance” cases refer to students with absence from school for 14 days or more in a school year without approval from their guardian/parents or the school authority. The term “truancy” is regarded as the violation of rules and regulations of the school; whereas the term “non-attender” has an implicit reference to the violation of law. These “truant” and “non-attender” groups formed subgroups of the overall truant group.

The decision to carry out the analyses with the sample divided into two groups was based on the results of a series of analyses using one-way analysis of variance with the non-truant group and the “truant” and the “non-attender” subgroups, which showed that the two truant subgroups were not significantly different on either locus of control or attribution. It was these results that led to the decision to combine the two truant subgroups into one truant group in the detailed analyses.

One-way analysis of variance is appropriate for analyzing research problems which seek to compare the variances of a dependent variable among categories of an independent variable (Bryman & Cramer, 1998). In the original analyses, each key measure was conceived as a dependent variable; whereas truancy status with three categories was conceived as an independent variable. A Post Hoc Multiple Comparison procedure using the Scheffe’s test was also performed for comparing specific means (Bryman & Cramer, 1998). These procedures analyze each possible pair of means to determine if any two means are significantly different from one another. The Scheffe’s test is the most conservative procedure which will indicate that two means are significantly different only when the means are far apart (Bryman & Cramer, 1998). The results of the analyses will be described in the appropriate sections on research findings.

#### *The multiple item approach to index construction*

In the present thesis, attempts were made to construct indices for the school and social experience measures to measure family relation, school relation, problem behaviour, academic self-evaluation, and perceived value of schooling. An index represents a summary figure and a composite measure in which each item measures one

element of the concept and provides information on this element or part of the concept (Sarantakos, 1993). However, an index, as distinguished from a scale, is less sophisticated in construction and may not be as reliable and valid as what can be expected for a scale due primarily to the arbitrariness of the items and a small number of items that comprises it (Nachmias & Nachmias, 1996). An index is intended to be a crude measure and is often employed when there is no better alternative, or when a more time-consuming instrument cannot be used as in the case of classroom administration in the present study. Thus, when sophisticated measures cannot be employed, the standard reputable approach in social science is to use indices (Gorard, 2001). However, the extent to which the items comprising it have been appropriately chosen must be evaluated by item analyses and the resulting reliability coefficient (Nachmias & Nachmias, 1996). In this thesis, only those indices with high interitem correlations and a respectably high reliability were retained for further analyses.

The multiple-item measures are in essence ordinal variables. This may pose problems for analyses if parametric procedures, which are both powerful and popular, could not be used. The application of parametric statistics on ordinal data will be discussed below.

#### *Application of parametric statistics on ordinal data*

The issue of whether parametric statistics can be applied to ordinal data is a popular yet controversial issue that has invited continued debates among researchers and statisticians.

Some researchers feel that parametric procedures should be used only with interval level data. For ordinal variables, nonparametric statistics should be used instead (Siegel & Castellan, 1988). However, other researchers seem to hold a different opinion. They suggest that parametric tests can also be used with ordinal variables since tests apply to numbers and not to what those numbers signify (e.g., Lord, 1953). It has also been argued that almost all ordinal variables can and should be treated as interval variables (Labovitz, 1970). The argument is that the amount of error that can occur is minimal, but there is considerable advantages to the use of parametric procedures because they are both powerful and relatively easy to interpret. Labovitz (1971) also points out that

many researchers would accept the treatment of multiple-item measures as interval because these measures permit a large number of categories to be stipulated. In responding to the controversial view of whether multi-item measures should be accepted as interval, Bryman and Cramer (1988: p. 57) point out that "there does not appear to be a rule of thumb which allows the analyst to specify when a variable is definitely ordinal and when interval". Perhaps the most convincing argument for the use of parametric statistics on ordinal data is presented by Nunnally (1967: p. 25) who stated that,

"Product-moment correlation mainly is sensitive to the rank order of individuals on two measures. As long as that rank order is not disturbed, changes in the shapes of distributions make only very small changes in the correlation. Since the correlation coefficient is basic to all more complex methods of multivariate analysis, it follows that these more complex methods also are affected very little by transformations of measures."

Despite the arguments and counter-arguments, it appears that parametric tests are routinely applied to ordinal variables (Bryman & Cramer, 1998), and that this application has been accepted by the research community as a normal practice. Journal articles, which often report the use of parametric tests with ordinal data (Huck, Cormier, & Bounds, 1974), provide clear evidence to indicate its widespread acceptance.

In view of the objectives of analyses in the present thesis, there is no better alternative to a parametric multivariate model. Nonparametric statistics cannot provide the needed answers to the questions posed. In referring to the disadvantages of nonparametric tests, Siegel and Castellan (1988) also point out that there are as yet no nonparametric methods for testing interactions in the analysis of variance model and that many highly specialized tests have been comparatively inaccessible.

Nevertheless, in order to determine whether the parametric and nonparametric models of analyses render similar results, three groups of analyses were performed to study the relationships between truancy status and family and school experiences in this thesis. The treatment of the family and school experience measures as nominal variables requires that crosstabulation technique be employed with the Chi-square test as a test of statistical significance. The treatment of the family and school experience

measures as ordinal variables, on the other hand, requires that either the Mann-Whitney U test or the Kruskal-Wallis One-way Analysis of Variance of Ranks be employed. Both are nonparametric tests designed for research situations in which the assumptions of normality and homogeneity are seriously violated, or when the dependent variable is conceived as an ordinal variable consisting of ranks (Bryman & Cramer, 1998). The Mann-Whitney U test is analogous to the t-test, and the Kruskal-Wallis One-way Analysis of Variance of Ranks is a nonparametric equivalent to one-way analysis of variance. The other group of analyses were performed by a series of t-tests or one-way analysis of variance. Both tests require the treatment of the family and school experience measures as interval variables, and are appropriate for the study of relationship between a nominal variable and an interval variable (Bryman & Cramer, 1988).

With the understanding of the kind of analyses conducted to address the study goals, we may turn our attention to the research findings.

## CHAPTER VI

### RESEARCH FINDINGS

The research findings are presented in the following sequence: The characteristics of the sample, which include personal and family characteristics, will be presented first; followed by a description of family and school experiences. The characteristics of the sample and family and school experiences will be linked to truancy and non-truancy status, and the results will be described next. This will be followed by the results of reliability and validity analyses for the Nowicki-Strickland Locus of Control Scale and the attributional measures. The last part of the research findings will be those pertaining to status differences in family and school experiences, locus of control, and attributions.

#### PERSONAL CHARACTERISTICS

As reported previously, a total of 384 research subjects were recruited from the “E” classes of 4 “band 5” schools. About one-third (31.0%) came from School B; 26.8 percent from School A; and an equal percentage (21.1) came from School C and School D. Personal characteristics include Form attended, age, gender, immigrant status, and religious affiliation; whereas family characteristics include number of siblings, type of accommodation, marital status of parents, and parents’ educational and occupational status.

The personal characteristics of the research subjects are presented first in Table 1.

#### *Form attended*

Slightly more than one-third of the respondents were studying in Form 1 (35.2%), less than one-third (31.8%) were attending Form 2, and about one-third (33.1%) were studying in Form 3.

#### *Age and gender*

The respondents were, on the average, 13.57 years of age and most of them (38.5%)

were 14 years old. A total of 253 (58.6%) were male and 178 (41.4%) were female.

### Immigrant status

They had lived in Hong Kong for an average of 11.92 years and, 35 of them (9.1%) were immigrants from Mainland China who had taken up residence in Hong Kong for less than 5 years.

### Religion

Less than one-third (30.5%) had a religion. Among them, 15.4 percent were Catholics or Christians; 14.6 percent were Buddhists, Taoist, or Muslims; and 0.5 percent were affiliated with other religion.

Table 1. Personal characteristics

| Personal characteristics                         | Frequency | Percent |
|--------------------------------------------------|-----------|---------|
| Form attended                                    |           |         |
| Form 1                                           | 135       | 35.2    |
| Form 2                                           | 122       | 31.8    |
| Form 3                                           | 127       | 33.1    |
| Age                                              |           |         |
| 12                                               | 76        | 19.8    |
| 13                                               | 87        | 22.7    |
| 14                                               | 148       | 38.5    |
| 15                                               | 73        | 19.0    |
| Gender                                           |           |         |
| Male                                             | 225       | 58.6    |
| Female                                           | 159       | 41.4    |
| Immigrant status                                 |           |         |
| New immigrant, less than 5 years in Hong Kong    | 35        | 9.1     |
| Permanent resident, 5 years or more in Hong Kong | 349       | 90.9    |
| Religion                                         |           |         |
| No religion                                      | 267       | 69.5    |
| Catholic/Christian                               | 59        | 15.4    |
| Buddhist/Taoist/Muslim                           | 56        | 14.6    |
| Other                                            | 2         | .5      |

In order to provide a more detailed description of the sample, crosstabulation analyses were conducted on the personal characteristics using Form and gender separately as a grouping variable. The results are presented in Tables 2 and 3. Further crosstabulation analyses were also performed by using Form and gender simultaneously, and the results are presented in Table 4.

## Personal characteristics by Form

### Form attended

As reported previously, slightly more than one-third of the respondents were studying in Form 1 (35.2%), less than one-third (31.8%) were attending Form 2, and about one-third (33.1%) were studying in Form 3.

### Age

The age distribution of each Form showed that of the Form 1 students, 72.6 percent were 12 or 13 years of age; but 27.4 percent were 14 or 15 years old. Of the Form 2 students, 82.8 percent were 14 years of age or younger; but 17.2 percent were 15 years old. Of the Form 3 students, about two-thirds (66.9%) were aged 14 or younger; and the other one-third (33.1%) were 15 years old. In Hong Kong, 13 is the normal age for attending Form 1; 14 for attending Form 2; and 15 for attending Form 3. Although many students could enter secondary school at a younger age, the presence of a substantial proportion of over-aged students suggests the prevalence of repeaters in the present sample.

### Gender

Consistent with the pattern of the overall sample, the students in each Form were predominantly male. Some differences were discernible although the differences were small. Sixty percent of the Form 1 students were male; as compared to 55.7 percent of those in Form 2, and 59.8 percent of those in Form 3.

### Immigrant status

As described previously, only a small number of students in the present sample were immigrants from Mainland China who had taken up residence in Hong Kong for less than 5 years. The highest percentage of immigrant students was found in Form 2; followed by Form 3 and Form 1. About ten percent (9.8%) of the Form 2 students were immigrants; as compared to 4.7 percent in Form 3, and only 2.6 percent in Form 1.

## Religion

It was reported that less than one-third of the sample were affiliated with a religion. The same pattern was found in each Form; and the differences across Forms in each religion category were also small. The Catholic/Christian category was represented by 17.8 percent of the students in Form 1, 11.5 percent of those in Form 2, and 16.5 percent of those in Form 3; whereas in the Buddhist/Taoist/Muslim category, the corresponding figures were 13.3%, 17.2%, and 13.4%.

Table 2. Personal characteristics by Form

|                        | Form 1 |      | Form 2 |      | Form 3 |      | Total |      |
|------------------------|--------|------|--------|------|--------|------|-------|------|
|                        | N      | %    | N      | %    | N      | %    | N     | %    |
| Age                    |        |      |        |      |        |      |       |      |
| 12                     | 69     | 51.1 | 7      | 5.7  | 0      | 0.0  | 76    | 19.8 |
| 13                     | 29     | 21.5 | 47     | 40.2 | 8      | 7.1  | 87    | 22.7 |
| 14                     | 27     | 20.0 | 45     | 36.9 | 76     | 59.8 | 148   | 38.5 |
| 15                     | 10     | 7.4  | 21     | 17.2 | 42     | 33.1 | 73    | 19.0 |
| Gender                 |        |      |        |      |        |      |       |      |
| Male                   | 81     | 60.0 | 68     | 55.7 | 76     | 59.8 | 225   | 58.6 |
| Female                 | 54     | 40.0 | 54     | 44.3 | 51     | 40.2 | 159   | 41.4 |
| Immigrant status       |        |      |        |      |        |      |       |      |
| New immigrant          | 17     | 2.6  | 12     | 9.8  | 6      | 4.7  | 35    | 9.1  |
| Permanent resident     | 118    | 87.4 | 110    | 90.2 | 121    | 95.3 | 349   | 90.9 |
| Religion               |        |      |        |      |        |      |       |      |
| No religion            | 93     | 68.9 | 87     | 71.3 | 89     | 70.1 | 269   | 70.1 |
| Catholic/Christian     | 24     | 17.8 | 14     | 11.5 | 21     | 16.5 | 59    | 15.4 |
| Buddhist/Taoist/Muslim | 18     | 13.3 | 21     | 17.2 | 17     | 13.4 | 56    | 14.6 |

## Personal characteristics by gender

In the sample, a total of 225 (58.6%) were male and 159 (41.4%) were female. Gender differences in the distribution of each of the personal characteristics were analyzed using the crosstabulation technique.

## Form attended

The distribution of gender by Form showed that 36.0 percent of boys, as compared to 34.0 percent of girls, were Form 1 students. In Form 2, 30.2 percent were boys and 34.0 percent were girls; whereas in Form 3, 33.8 percent were boys and 32.1 percent were girls.



### Age

The age distribution was more or less the same in each gender group. About twenty percent (20.4%) of boys and 18.9 percent of girls were 12 years old. Among the 13-year-olds, 22.2 and 23.3 percent were boys and girls respectively; of those aged 14, 37.8 percent were boys and 39.6 percent were girls; and 19.6 and 18.2 percent of the 15-year-olds were respectively boys and girls.

### Immigrant status

The distribution of immigrant students was quite similar among boys and among girls. About ten percent (10.1%) of the girls and 8.4 percent of the boys were immigrants.

### Religion

The distribution of the religion categories revealed that only 9.8 percent of boys were Catholics/Christians, as compared to 23.3 percent of girls. However, a slightly higher percentage of boys (15.1%) than girls (13.8%) were Buddhists/Taoists/Muslims. .

Table 3. Personal characteristics by gender

|                        | Male |      | Female |      | Total |      |
|------------------------|------|------|--------|------|-------|------|
|                        | N    | %    | N      | %    | N     | %    |
| Form attended          |      |      |        |      |       |      |
| Form 1                 | 81   | 36.0 | 54     | 34.0 | 135   | 35.2 |
| Form 2                 | 68   | 30.2 | 54     | 34.0 | 122   | 31.8 |
| Form 3                 | 76   | 33.8 | 51     | 32.1 | 127   | 33.1 |
| Age                    |      |      |        |      |       |      |
| 12                     | 46   | 20.4 | 30     | 18.9 | 76    | 19.8 |
| 13                     | 50   | 22.2 | 37     | 23.3 | 87    | 22.7 |
| 14                     | 85   | 37.8 | 63     | 39.6 | 148   | 38.5 |
| 15                     | 44   | 19.6 | 29     | 18.2 | 73    | 19.0 |
| Immigrant status       |      |      |        |      |       |      |
| New immigrant          | 19   | 8.4  | 16     | 10.1 | 35    | 9.1  |
| Permanent resident     | 206  | 91.6 | 143    | 89.9 | 349   | 90.9 |
| Religion               |      |      |        |      |       |      |
| No religion            | 169  | 75.1 | 100    | 62.9 | 269   | 70.1 |
| Catholic/Christian     | 22   | 9.8  | 37     | 23.3 | 59    | 15.4 |
| Buddhist/Taoist/Muslim | 34   | 15.1 | 22     | 13.8 | 56    | 14.6 |

### Personal characteristics by Form and gender

Age, immigrant status and religious affiliation were crosstabulated with Form and gender in order to describe the differences across Forms for each gender group.

#### Age

The age distribution showed that while 77.8 percent of the Form 1 boys were 13 years of age or younger; 22.2 percent were older than 13. Similar pattern was observed for Form 2 boys. While 77.9 percent of the Form 2 boys were 14 years of age or younger; 22.1 percent of them were over-aged by one year. The Form 3 boys were generally younger than what is normally expected of a Form 3 student. About seven in ten (71.1%) of those in Form 3 were 14 years of age or younger; only 28.9 percent were 15 years old. Similar patterns were observed for the female students. In Form 1, 35.2 percent were older than 13; in Form 2, 11.1 percent were older than 14; whereas in Form 3, 60.1 percent were 14 years of age or younger and only 39.9 percent were aged 15.

#### Immigrant status

The distribution of immigrant students was found to vary across Forms for both gender groups, but the differences were only small. Among boys, 11.1 percent of those in Form 1 were immigrants; as compared to 8.8 percent of their counterparts in Form 2, and 5.3 percent of those in Form 3. The figures for girls in Form 1, Form 2 and Form 3 were 14.8%, 11.1%, and 3.9% respectively.

#### Religion

The distribution of religion categories among Form 1 boys showed that 13.6 percent of them were Catholics/Christians; and 17.3 percent of them were Buddhists/Taoists/Muslims. The figures were 9.2% and 11.8% for the Form 2 boys, and 5.9% and 16.2% for the Form 3 boys. The pattern across Forms for boys appeared consistent, suggesting that boys in general were more likely to be holders of Chinese religious beliefs than Christianity. On the other hand, the distribution of the religion categories for girls showed that they were more likely to be Catholics/Christians than

Buddhists/Taoists/Muslims, regardless of the Form attended. Almost one-quarter (24.1%) of the Form 1 girls were Catholics/Christians; but only 7.4 percent of them were Buddhists/Taoists/Muslims. In Form 2, the figures were 27.5% and 15.7% respectively; as compared to 27.5% and 15.7% for those in Form 3.

Table 4. Personal characteristics by Form and gender (in percent)

|                        | Form 1         |                  | Form 2         |                  | Form 3         |                  | Total           |                   |
|------------------------|----------------|------------------|----------------|------------------|----------------|------------------|-----------------|-------------------|
|                        | Male<br>(N=81) | Female<br>(N=54) | Male<br>(N=68) | Female<br>(N=54) | Male<br>(N=76) | Female<br>(N=51) | Male<br>(N=225) | Female<br>(N=159) |
| Age                    |                |                  |                |                  |                |                  |                 |                   |
| 12                     | 49.4           | 53.7             | 8.8            | 1.9              | 0.0            | 0.0              | 20.4            | 18.9              |
| 13                     | 28.4           | 11.1             | 33.8           | 48.1             | 5.3            | 9.8              | 22.2            | 23.3              |
| 14                     | 13.6           | 29.6             | 35.3           | 38.9             | 65.8           | 51.0             | 37.8            | 39.6              |
| 15                     | 8.6            | 5.6              | 22.1           | 11.1             | 28.9           | 39.2             | 19.6            | 18.2              |
| Immigrant status       |                |                  |                |                  |                |                  |                 |                   |
| New immigrant          | 11.1           | 14.8             | 8.8            | 11.1             | 5.3            | 3.9              | 8.4             | 10.1              |
| Permanent resident     | 88.9           | 85.2             | 91.2           | 88.9             | 94.7           | 96.1             | 91.6            | 89.9              |
| Religion               |                |                  |                |                  |                |                  |                 |                   |
| No religion            | 69.1           | 68.5             | 77.9           | 56.9             | 78.9           | 56.9             | 75.1            | 62.9              |
| Catholic/Christian     | 13.6           | 24.1             | 5.9            | 27.5             | 9.2            | 27.5             | 9.8             | 23.3              |
| Buddhist/Taoist/Muslim | 17.3           | 7.4              | 16.2           | 15.7             | 11.8           | 15.7             | 15.1            | 13.8              |

### FAMILY CHARACTERISTICS

As stated in the beginning of this chapter, the following family characteristics of the respondents were examined: number of siblings, type of accommodation, marital status of parents, and parents' educational and occupational status. The description of these characteristics are presented in Table 5.

#### Number of siblings

The respondents' families, including the respondents themselves, had an average of 2.72 children. Although most families had 2 children (37.8%), half of them had 3 children or more. On the whole, the families of the respondents were larger than the average family in Hong Kong which has only 2.3 children.

#### Type of accommodation

Almost two-thirds of the families (65.1%) were living in public housing; 32.6 percent were living in private housing; and others were living in temporary structures (0.5%), squatter areas (1.0%), or other substandard accommodation (0.8%).

### Marital status of parents

Although the majority of the families were intact families with two parents (82.3%), others were broken families with parents either separated (4.9%), divorced (9.1%), widowed (2.9%), or parents involved in other relationships such as common-law or extra-marital relationship (0.8%).

### Parents' educational and occupational status

Education and occupation of parents were important attributes for measuring social class of the families. Information on educational attainment of fathers and mothers was obtained from 82.0 and 84.6 percent of the respondents respectively.

The vast majority of fathers (94.0%) had attained secondary school education or below. Over half (59.1%) had completed secondary school; more than one-third (34.9%) had attended primary school or below; and only 6.0 percent had attained higher than secondary education. Similar pattern was discernible for mothers. Over half (56.4%) had completed secondary school; 39.4 percent had attained primary education or below; and 4.2 percent had completed higher than secondary education.

Given the low educational attainment, it is not surprising to find that more than two-thirds (69.2%) of the fathers and over one-third (37.5%) of the mothers were in low-paying occupations such as service occupation and manual worker. Furthermore, 8.6 percent of the fathers did not hold a job; and the relatively low percentage of mothers in low-paying occupations was explained by the fact that 46.4 percent were housewives. It is interesting to observe that some students did not know their father's or mother's occupation.

Table 5. Family characteristics

|                                           | Frequency | Percent |
|-------------------------------------------|-----------|---------|
| Number of siblings                        |           |         |
| None                                      | 40        | 10.4    |
| 1                                         | 145       | 37.8    |
| 2                                         | 113       | 29.4    |
| 3                                         | 61        | 15.9    |
| 4                                         | 19        | 4.9     |
| 5 or more                                 | 6         | 1.6     |
| Type of housing                           |           |         |
| Public                                    | 250       | 65.1    |
| Private                                   | 125       | 32.6    |
| Temporary                                 | 2         | .5      |
| Squatter                                  | 4         | 1.0     |
| Other                                     | 3         | .8      |
| Marital status of parents                 |           |         |
| Married                                   | 316       | 82.3    |
| Separated                                 | 19        | 4.9     |
| Divorced                                  | 35        | 9.1     |
| Widowed                                   | 11        | 2.9     |
| Other                                     | 3         | .8      |
| Father's Educational Attainment (N = 335) |           |         |
| Primary or below                          | 117       | 34.9    |
| Secondary                                 | 198       | 59.1    |
| Further/Higher education                  | 20        | 6.0     |
| Mother's Educational Attainment (N=335)   |           |         |
| Primary or below                          | 132       | 39.4    |
| Secondary                                 | 189       | 56.4    |
| Further/Higher education                  | 14        | 4.2     |
| Father's Occupational Status (N = 373)    |           |         |
| Professional and technical                | 23        | 6.2     |
| Administrative and managerial             | 23        | 6.2     |
| Clerical                                  | 9         | 2.4     |
| Sales                                     | 28        | 7.5     |
| Service                                   | 103       | 27.6    |
| Manual worker                             | 131       | 35.1    |
| Other                                     | 24        | 6.4     |
| No job                                    | 32        | 8.6     |
| Mother's Occupational Status (N = 373)    |           |         |
| Professional and technical                | 10        | 2.7     |
| Administrative and managerial             | 4         | 1.1     |
| Clerical                                  | 17        | 4.6     |
| Sales                                     | 29        | 7.8     |
| Service                                   | 71        | 19.0    |
| Manual worker                             | 54        | 14.5    |
| Other                                     | 15        | 4.0     |
| Housewife                                 | 173       | 46.4    |

### Social class

Attempt was also made to construct an index of social class by combining the education and occupation of parents. Operationally, a composite score could be formed

by averaging the sum of educational and occupational rankings of both parents. In the case of single mother families, the educational and occupational rankings of mother would be used instead. In the construction of this index, correlation was first performed on the educational and occupational rankings of the parents to determine whether such an index was warranted. For educational ranking, a score of 3 was given to further/higher education; 2 to secondary education; 1 to primary school or below; and 0 to no formal education. Occupations were coded with numerical values representing eight categories from low to high: the lowest category was coded as 0, including no job/housewife; others was coded as 1; manual worker was coded as 2; service was coded as 3; sales was coded as 4; clerical was coded as 5; administrative and managerial was coded as 6; and professional and technical was coded as 7. The result of the correlational analysis showed that the relationship between the educational and occupational rankings were statistically significant but very weak ( $r = .172$ ,  $p < .01$ ). As the educational qualification from Mainland China is not respected on an equal basis for employment in Hong Kong, the likely presence of a substantial proportion of immigrant parents in the sample would have weakened the link between their educational rankings and occupational rankings. Based on this finding, decision was made to abandon the index for the purpose of further analyses.

#### Family characteristics by Form

In order to provide a more detailed description of family characteristics, further analyses were conducted by crosstabulating each characteristics by Form. The results are presented in Table 6.

#### Number of siblings

The distribution of number of siblings across Forms showed that about half of the Form 1 and Form 2 students (48.1% and 50.8% respectively) and over half of the Form 3 students (56.7%) had two or more siblings. This finding showed that the Form 3 students were more likely than their counterparts in the other Forms to come from large families with three or more children.

### Type of accommodation

The distribution of the types of accommodation for each Form was consistent with the general pattern which showed that most of the students in the present sample were living in public housing and other types of accommodation typically catered for families of a low socioeconomic status in Hong Kong. Specifically, 74.8 percent of the Form 1 students, as compared to 65.6 percent of those in Form 2 and 61.4% of those in Form 3, were living in this type of accommodation.

### Marital status of parents

Marital status of the parents suggests whether a family is an intact family or a broken family. In this thesis, families with married parents were considered as intact families; whereas those with parents who were divorced, separated or widowed were considered as broken families. Table 8 showed that less than twenty percent of the children in each Form came from broken families. The figures for Form 1, Form 2, and Form 3 were 17.0%, 18.9%, and 17.3% respectively. The distribution of broken families in each Form was generally consistent with the pattern of the overall sample.

### Parents' educational and occupational status

With respect to the level of educational attainment, the distribution of both parents was quite similar among students in each Form and was consistent with the overall pattern. Most parents had completed secondary school, but the percentage having attained primary school education or below was also quite substantial. The figures showed that 42.5 percent of the Form 1 fathers had attained an education of primary school or below; as compared to 29.4 percent of the Form 2 fathers, and 31.9 percent of the Form 3 fathers. The figures were 41.7 percent for Form 1 mothers, 31.4 percent for Form 2 mothers, and 44.2 percent for Form 3 mothers.

The distribution of parents' occupations was quite similar among students in each Form. Generally, parents' low educational attainment was reflected in their low occupational status. As previously noted, a sizeable proportion of the parents were service or manual workers. Consistent with this overall pattern, it was found that almost two-fifths (59.7%) of the Form 1 fathers were holding such occupations, as compared to

67.5 percent of the Form 2 fathers, and 61.3 percent of the Form 3 fathers. The figures were 28.7%, 38.3%, and 33.9% respectively for mothers. As pointed out earlier, the percentages of mothers holding such occupations were attenuated by a large percentage of mothers without employment.

Table 6. Family characteristics by Form

|                                                  | Form 1 |      | Form 2 |      | Form 3 |      | Total |      |
|--------------------------------------------------|--------|------|--------|------|--------|------|-------|------|
|                                                  | N      | %    | N      | %    | N      | %    | N     | %    |
| Number of siblings                               |        |      |        |      |        |      |       |      |
| 1 or none at all                                 | 70     | 51.9 | 58     | 49.2 | 55     | 43.3 | 185   | 48.2 |
| 2 or more                                        | 65     | 48.1 | 62     | 50.8 | 72     | 56.7 | 199   | 51.8 |
| Type of housing                                  |        |      |        |      |        |      |       |      |
| Public/temporary/squatter/other                  | 101    | 74.8 | 80     | 65.6 | 78     | 61.4 | 259   | 67.4 |
| Private                                          | 34     | 25.2 | 42     | 34.4 | 49     | 38.6 | 125   | 32.6 |
| Nature of family                                 |        |      |        |      |        |      |       |      |
| Intact family                                    | 112    | 83.0 | 99     | 81.1 | 105    | 82.7 | 316   | 82.3 |
| Broken family                                    | 23     | 17.0 | 23     | 18.9 | 22     | 17.3 | 68    | 17.7 |
| Father's Educational Attainment (N = 335)        |        |      |        |      |        |      |       |      |
| Primary or below                                 | 51     | 42.5 | 30     | 29.4 | 36     | 31.9 | 117   | 34.9 |
| Secondary                                        | 63     | 52.5 | 67     | 65.7 | 68     | 60.2 | 198   | 59.1 |
| Further/Higher education                         | 6      | 5.0  | 5      | 4.9  | 9      | 8.0  | 20    | 6.0  |
| Mother's Educational Attainment (N = 335)        |        |      |        |      |        |      |       |      |
| Primary or below                                 | 50     | 41.7 | 32     | 31.4 | 50     | 44.2 | 132   | 39.4 |
| Secondary                                        | 64     | 53.3 | 66     | 64.7 | 59     | 52.2 | 189   | 56.4 |
| Further/Higher education                         | 6      | 5.0  | 4      | 3.9  | 4      | 3.5  | 14    | 4.2  |
| Father's Occupational Status (N = 373)           |        |      |        |      |        |      |       |      |
| Professional/technical/administrative/managerial | 14     | 10.9 | 13     | 10.8 | 19     | 15.4 | 46    | 12.4 |
| Clerical/sales                                   | 9      | 7.0  | 12     | 10.0 | 16     | 12.9 | 37    | 9.9  |
| Service                                          | 36     | 27.9 | 28     | 23.3 | 39     | 31.5 | 103   | 27.6 |
| Manual worker                                    | 41     | 31.8 | 53     | 44.2 | 37     | 29.8 | 131   | 35.1 |
| Other                                            | 29     | 22.5 | 14     | 11.7 | 13     | 10.5 | 56    | 15.0 |
| Mother's Occupational Status (N = 373)           |        |      |        |      |        |      |       |      |
| Professional/technical/administrative/managerial | 4      | 3.1  | 2      | 1.7  | 8      | 6.4  | 14    | 3.8  |
| Clerical/sales                                   | 12     | 9.3  | 18     | 15.0 | 16     | 12.9 | 46    | 12.4 |
| Service                                          | 21     | 16.3 | 21     | 17.5 | 29     | 23.4 | 71    | 19.0 |
| Manual worker                                    | 16     | 12.4 | 25     | 20.8 | 13     | 10.5 | 54    | 14.5 |
| Other                                            | 76     | 58.9 | 54     | 45.0 | 58     | 46.8 | 188   | 50.4 |

### Family characteristics by gender

Further description of the family characteristics was based on the results of crosstabulations with gender. The results are presented in Table 7.



### Number of siblings

The distribution of number of siblings for both gender showed that proportionally more girls (61.0%) than boys (45.3%) had two or more siblings. This finding showed that girls in the present sample were more likely than boys to come from large families with three or more children.

### Type of accommodation

With respect to the type of accommodation, it was found that almost an equal percentage of boys (67.6%) and girls (67.3%) were living in public housing and other types of accommodation which are typically provided for families of a low socioeconomic status in Hong Kong.

### Marital status of parents

A substantially higher percentage of female students than male students had parents who were divorced, separated or widowed. The respective figures were 23.9 and 13.3 percent. These findings indicated that the female students were more likely than their male counterparts to come from broken families.

### Parents' educational and occupational status

In terms of parents' educational attainment, differences between boys and girls in the percentage of fathers or mothers with low education were small. One-third (33.3%) of the boys' fathers, as compared to 37.1 percent of the girls' fathers had attained an education of primary school or below. The educational level of mothers was somewhat lower for girls. Whereas 36.9 percent of the boys' mothers had attained an education of primary school or below, the corresponding figure for the girls' mothers was 42.9 percent.

The distribution of parents' occupations was quite similar when male and female students were compared. As shown in Table 9, 65.9 percent of the boys' fathers, as compared to 58.2 percent of the girls' fathers were service or manual workers. However, a substantially higher percentage of fathers of the female students were not employed.

The percentages of mothers holding service occupations or manual jobs were more or less the same for both gender. Slightly more than one-third (35.5%) of the boys' mothers, as compared to 30.7 percent of the girls' mothers were service or manual workers. The percentages of housewife-mothers or mothers without a job did not vary much between the gender groups; the figures for boys' mothers and girls' mothers were 45.0% and 58.2% respectively.

Table 7. Family characteristics by gender

|                                                  | Male |      | Female |      | Total |      |
|--------------------------------------------------|------|------|--------|------|-------|------|
|                                                  | N    | %    | N      | %    | N     | %    |
| Number of siblings                               |      |      |        |      |       |      |
| 1 or none at all                                 | 123  | 54.7 | 62     | 39.0 | 185   | 48.2 |
| 2 or more                                        | 102  | 45.3 | 97     | 61.0 | 199   | 51.8 |
| Type of housing                                  |      |      |        |      |       |      |
| Public/temporary/squatter/other                  | 152  | 67.6 | 107    | 67.3 | 259   | 67.4 |
| Private                                          | 73   | 32.4 | 52     | 32.7 | 125   | 32.6 |
| Nature of family                                 |      |      |        |      |       |      |
| Intact family                                    | 195  | 86.7 | 121    | 76.1 | 316   | 82.3 |
| Broken family                                    | 30   | 13.3 | 38     | 23.9 | 68    | 17.7 |
| Father's Educational Attainment (N = 335)        |      |      |        |      |       |      |
| Primary or below                                 | 65   | 33.3 | 52     | 37.1 | 117   | 44.9 |
| Secondary                                        | 121  | 62.1 | 77     | 55.0 | 198   | 59.1 |
| Further/Higher education                         | 9    | 4.6  | 11     | 7.9  | 20    | 6.0  |
| Mother's Educational Attainment (N = 335)        |      |      |        |      |       |      |
| Primary or below                                 | 72   | 36.9 | 60     | 42.9 | 132   | 39.4 |
| Secondary                                        | 116  | 59.5 | 73     | 52.1 | 189   | 56.4 |
| Further/Higher education                         | 7    | 3.6  | 7      | 5.0  | 14    | 4.2  |
| Father's Occupational Status (N = 373)           |      |      |        |      |       |      |
| Professional/technical/administrative/managerial | 31   | 14.1 | 15     | 9.8  | 46    | 12.3 |
| Clerical/sales                                   | 24   | 10.9 | 13     | 8.5  | 37    | 9.9  |
| Service                                          | 60   | 27.3 | 43     | 28.1 | 103   | 27.6 |
| Manual worker                                    | 85   | 38.6 | 46     | 30.1 | 131   | 35.1 |
| Other                                            | 20   | 9.1  | 36     | 23.5 | 56    | 15.0 |
| Mother's Occupational Status (N = 373)           |      |      |        |      |       |      |
| Professional/technical/administrative/managerial | 9    | 4.1  | 5      | 3.3  | 14    | 3.8  |
| Clerical/sales                                   | 34   | 15.5 | 12     | 7.8  | 46    | 12.3 |
| Service                                          | 44   | 20.0 | 27     | 17.6 | 71    | 19.0 |
| Manual worker                                    | 34   | 15.5 | 20     | 13.1 | 54    | 14.5 |
| Other                                            | 99   | 45.0 | 89     | 58.2 | 188   | 50.4 |

### Family characteristics by Form and gender

Additional analyses involved crosstabulations of the family characteristics with Form and gender, and the results are presented in Table 8.

#### Number of siblings

It was previously reported that the female students in the present sample were more likely than boys to come from large families with three or more children. Additional analyses served to describe the differences across Forms for each gender group. The results showed that about the same percentage of male students in each form had two or more siblings. The figures were 45.7%, 48.5%, and 42.1% for Form 1, Form 2, and Form 3 respectively. Greater variations among different forms for female students were observed. A substantially higher percentage of the Form 3 girls than the girls in the other Forms had two or more siblings. Specifically, 78.4 percent of the Form 3 girls had two or more siblings, as compared to 53.7 percent of those in Form 2, and 51.9 percent of those in Form 1. Thus, the female students in Form 3 were more likely than their counterparts in the other Forms to come from large families with three or more children.

#### Type of accommodation

As reported earlier, most students and almost an equal percentage of boys and girls were living in public housing and other types of accommodation catered for families of low socioeconomic status. Further analyses showed that those who were living in this type of accommodation were predominant in each Form, and this generally holds true for both gender groups. The results showed that 70.4 percent of the male students in Form 1 were living in this type of accommodation; as compared to 69.1 percent of those in Form 2 and 63.2 percent of those in Form 3. The same pattern was observed for the female students although the variations across Forms were much larger than those of the male. A substantially higher percentage of the girls in Form 1 than those in the other Forms were living in this type of accommodation. More than four-fifths (81.5%) of the girls in Form 1 were living in public housing and similar types of accommodation, as compared to 61.1 percent of those in Form 2 and 58.8 percent of those in Form 3.

### Marital status of parents

As previously noted, female students were more likely than male students to come from broken families. Further analyses of the distribution in each Form for each gender group showed that boys in Form 3 were more likely than those in the other Forms to come from broken homes. The figures showed that 15.8 percent of the boys in Form 3, as compared to 12.3 percent of those in Form 1 and 11.8 percent of those in Form 2 had parents who were divorced, separated, or widowed. The figures for female students were 27.8 percent in Form 2, 24.1 percent in Form 1 and 19.6 percent in Form 3. Thus, the Form 2 girls were more likely than their counterparts in the other Forms to come from broken families.

### Parents' educational and occupational status

With respect to parents' educational and occupational status, comparison by gender of the respondents showed that the differences between boys and girls were only small. For both gender groups, parents' educational and occupational status were generally low.

Further analyses show that the differences across Forms for each gender group were somewhat larger than those observed between the gender groups. Specifically, proportionally more boys in Form 1 than those in the other Forms had fathers with low education. The figures for Form 1, Form 2 and Form 3 were 41.7%; 28.1% and 28.8% respectively. However, the differences across Forms were smaller for the female; 43.8 percent of the girls in Form 1 had fathers with an education of primary school or below, as compared to 31.1 percent of those in Form 2 and 36.2 percent of those in Form 3. Among male students, the percentage with mothers of low education was the highest in Form 3 (43.9%); followed by Form 1 (36.1%) and Form 2 (29.8%). Among the female students, the highest percentage went to Form 1 (50.0%); followed by Form 3 (44.7%) and Form 2 (33.3%).

Despite similarities between gender groups in parents' occupations, further analyses revealed substantial differences when the Forms were compared within each gender

group. The results showed that the fathers of the Form 2 boys (74.6%) were more likely than those of Form 1 (62.8%) and Form 2 (62.3%) to be engaged in a service occupation or manual work. A different pattern was found for mother's occupations. The mothers of the boys in Form 3 (41.3%) were more likely to hold a service occupation or employed as a manual worker than their counterparts in Form 2 (38.8%) and Form 1 (26.9%).

Among the female students, the percentages of fathers being service or manual workers were quite similar across Forms. The figures for Form 1, Form 2 and Form 3 were 54.9%, 58.4%, and 61.2% respectively. The figures for mothers' occupations were 31.4%, 37.8%, and 22.5% respectively. The large differences between the Form 3 mothers and those of the other Forms were explained by the fact that a substantially higher percentage of the Form 3 mothers were not employed.

Table 8. Family characteristics by Form and gender (in percent)

|                                                  | Form 1<br>Male (N=81) Female (N=54) |      | Form 2<br>Male (N=68) Female (N=54) |      | Form 3<br>Male (N=76) Female (N=51) |      | Total<br>Male (N=225) Female (N=159) |      |
|--------------------------------------------------|-------------------------------------|------|-------------------------------------|------|-------------------------------------|------|--------------------------------------|------|
| Number of siblings                               |                                     |      |                                     |      |                                     |      |                                      |      |
| 1 or none at all                                 | 54.3                                | 48.1 | 51.5                                | 46.3 | 57.9                                | 21.6 | 54.7                                 | 39.0 |
| 2 or more                                        | 45.7                                | 51.9 | 48.5                                | 53.7 | 42.1                                | 78.4 | 45.3                                 | 61.0 |
| Type of housing                                  |                                     |      |                                     |      |                                     |      |                                      |      |
| Public/temporary/squatter/other                  | 70.4                                | 81.5 | 69.1                                | 61.1 | 63.2                                | 58.8 | 67.6                                 | 67.3 |
| Private                                          | 29.6                                | 18.5 | 30.9                                | 38.9 | 36.8                                | 41.2 | 32.4                                 | 32.7 |
| Nature of family                                 |                                     |      |                                     |      |                                     |      |                                      |      |
| Intact family                                    | 87.7                                | 75.9 | 88.2                                | 72.2 | 84.2                                | 80.4 | 86.7                                 | 76.1 |
| Broken family                                    | 12.3                                | 24.1 | 11.8                                | 27.8 | 15.8                                | 19.6 | 13.3                                 | 23.9 |
| Father's educational attainment (N = 335)        |                                     |      |                                     |      |                                     |      |                                      |      |
| Primary or below                                 | 41.7                                | 43.8 | 28.1                                | 31.1 | 28.8                                | 36.2 | 33.3                                 | 37.1 |
| Secondary                                        | 55.6                                | 47.9 | 66.7                                | 64.4 | 65.2                                | 53.2 | 62.1                                 | 55.0 |
| Further/Higher education                         | 2.8                                 | 8.3  | 5.3                                 | 4.4  | 6.1                                 | 10.6 | 4.6                                  | 7.9  |
| Mother's Educational Attainment (N = 335)        |                                     |      |                                     |      |                                     |      |                                      |      |
| Primary or below                                 | 36.1                                | 50.0 | 29.8                                | 33.3 | 43.9                                | 44.7 | 36.9                                 | 42.9 |
| Secondary                                        | 58.3                                | 45.8 | 66.7                                | 62.2 | 54.5                                | 48.9 | 59.5                                 | 52.1 |
| Further/Higher education                         | 5.6                                 | 4.2  | 3.5                                 | 4.4  | 1.5                                 | 6.4  | 3.6                                  | 5.0  |
| Father's Occupational Status (N = 373)           |                                     |      |                                     |      |                                     |      |                                      |      |
| Professional/technical/administrative/managerial | 12.8                                | 7.8  | 10.4                                | 11.3 | 18.7                                | 10.2 | 14.1                                 | 9.8  |
| Clerical/sales                                   | 9.0                                 | 3.9  | 9.0                                 | 11.3 | 14.7                                | 10.2 | 10.9                                 | 8.5  |
| Service                                          | 29.5                                | 25.5 | 23.9                                | 22.6 | 28.0                                | 36.7 | 27.3                                 | 28.1 |
| Manual worker                                    | 33.3                                | 29.4 | 50.7                                | 35.8 | 33.3                                | 24.5 | 38.6                                 | 30.1 |
| Other                                            | 15.4                                | 33.3 | 6.0                                 | 18.9 | 5.3                                 | 18.4 | 9.1                                  | 23.5 |

| Mother's Occupational Status (N = 373)            |      |      |      |      |      |      |      |      |
|---------------------------------------------------|------|------|------|------|------|------|------|------|
| Professional/technical/administrative/ managerial | 3.8  | 2.0  | 3.0  | 0.0  | 5.3  | 8.2  | 4.1  | 3.3  |
| Clerical/sales                                    | 12.8 | 3.9  | 14.9 | 15.1 | 18.7 | 4.1  | 15.5 | 7.8  |
| Service                                           | 14.1 | 19.6 | 16.4 | 18.9 | 29.3 | 14.3 | 20.0 | 17.6 |
| Manual worker                                     | 12.8 | 11.8 | 22.4 | 18.9 | 12.0 | 8.2  | 15.5 | 13.1 |
| Other                                             | 56.4 | 62.7 | 43.3 | 47.2 | 34.7 | 65.3 | 45.0 | 58.2 |

## SUMMARY

The above findings indicate that most of the respondents were permanent residents who had lived in Hong Kong for more than five years. Less than one-third were affiliated with a religion; and almost an equal half were Catholics/Christians or Buddhists/Taoists/Muslims.

There was little variation in most of the student characteristics when the different Forms and gender groups were compared. Age was found to be associated with Form; and this relationship was observed for students in each gender group. As can be predicted, older children were found in the higher Forms. However, there was no perfect match between age and Form due mainly to the presence of a large number of repeaters in each Form. Another significant finding revealed gender differences in religion. The female students were found more likely to be Catholics/Christians; whereas the male students were more likely to be Buddhists/Taoists/Muslims.

Most respondents came from families which were generally larger than an average family in Hong Kong. Most families were intact families with married parents living in public housing estates and temporary structures or other types of accommodation which were notoriously inferior or substandard. The vast majority of parents had attained an education of secondary school or below, and holding low-paying jobs. With respect to social class, the families were likely to be at the lower end of the scale. These family characteristics, which were typical of the entire sample, were common to students of each Form.

Most of the typical family characteristics were also common to students of both gender groups. However, the female students differed from the male students in three respects: First, they were more likely to come from large families with three or more children; second, their families were more likely to be broken families in which parents

were divorced, separated, or widowed; and third, their fathers were more likely to be unemployed.

Further analyses of family characteristics by Form and gender revealed a number of subtle differences. All these differences were related to female students. First, the female students in Form 3 were more likely than their counterparts in other Forms to come from large families with three or more children; second, the female students in Form 1 were more likely to live in public housing and other types of accommodation catered to families of low socioeconomic status; and third, the mothers of the female students in Form 2 were more likely to hold a job than their counterparts in other Forms.

### FAMILY AND SCHOOL EXPERIENCES

One of the objectives of this study was to examine how adolescents' perceptions of family and school experiences are linked to truancy status, locus of control, and attributions. In this section, the respondents' perceptions of their family and school experiences are described and elaborated with results of crosstabulations to further our understanding of how their experiences are related to Form and gender.

Family experiences refer to the respondents' perception of their relationships with parents and siblings; whereas school experiences include the respondents' perceived relationships with classmates and teachers, their perceived value of schooling, their academic self-evaluation, and their problem behaviour in school. Table 8 summarizes the research findings pertaining to the respondents' perceived relationships with parents, with siblings, and with classmates and teachers. Subsequent tables will present the other findings.

#### Relationship with parents and siblings

Relationship with parents and siblings was measured by respondents' perception of whether the relationship was very good, good, poor, or very poor. The results indicate that in general, the respondents had good relationships with parents (86.5%) and siblings (87.5%), although the proportion with poor relationships with parents (13.6%) and siblings (12.5%) was quite substantial.

### Relationships with classmates and teachers

The respondents were asked to indicate whether their relationships with classmates and teachers were very good, good, poor, or very poor. As shown in Table 9, less than one in ten (9.7%) perceived their relationship with classmates as poor or very poor. However, almost one-fifth (19.8%) perceived having poor or very poor relationship with teachers.

Table 9. Family and school experiences

|                              | Frequency | Percent |
|------------------------------|-----------|---------|
| Relationships with parents   |           |         |
| Very poor                    | 11        | 2.9     |
| Poor                         | 41        | 10.7    |
| Good                         | 207       | 53.9    |
| Very good                    | 125       | 32.6    |
| Relationships with siblings  |           |         |
| Very poor                    | 10        | 2.9     |
| Poor                         | 33        | 9.6     |
| Good                         | 191       | 55.5    |
| Very good                    | 110       | 32.0    |
| Relationship with classmates |           |         |
| Very poor                    | 6         | 1.6     |
| Poor                         | 31        | 8.1     |
| Good                         | 245       | 63.8    |
| Very good                    | 102       | 26.6    |
| Relationship with teacher    |           |         |
| Very poor                    | 28        | 7.3     |
| Poor                         | 48        | 12.5    |
| Good                         | 250       | 65.1    |
| Very good                    | 58        | 15.1    |

The findings pertaining to the respondents' academic self-evaluation, their perceived value of schooling, and their problem behaviours in school are presented in Tables 10, 11, and 12 respectively.

### Academic self-evaluation

Respondents were asked to compare themselves with classmates on academic abilities. Three academic subjects were compared: English, Chinese, and Mathematics. The answers were solicited by the following question: "Would you please rate your performance in the following subjects in comparison to other students in your class.



Would you say you perform below average, average, just above average, or much better than average ?”.

Table 10 showed that more than one-third of the respondents (36.5%) rated their performance in English as below average in comparison with other students in class. A smaller proportion (30.5%) rated their performance in Mathematics as below class average; and only 26.8% rated their performance in Chinese as below class average. These findings indicate that a rather high proportion of the respondents had low academic self-evaluation in the three major subjects of the secondary school curriculum particularly English and Mathematics.

Table 10. Academic self-evaluation

| Academic self-evaluation | Frequency | Percent |
|--------------------------|-----------|---------|
| English                  |           |         |
| Below average            | 140       | 36.5    |
| Average                  | 152       | 39.6    |
| Just above average       | 68        | 7.7     |
| Much better than average | 24        | 6.3     |
| Chinese                  |           |         |
| Below average            | 45        | 11.7    |
| Average                  | 168       | 43.8    |
| Just above average       | 136       | 35.4    |
| Much better than average | 35        | 9.1     |
| Mathematics              |           |         |
| Below average            | 117       | 30.5    |
| Average                  | 147       | 38.3    |
| Just above average       | 76        | 19.8    |
| Much better than average | 44        | 11.5    |

### Perceived value of schooling

How respondents perceived the relevance of schooling was indicated by responses to the following questions: “How often do you feel that schooling is a good preparation for your future ?”, “How often do you feel a sense of being successful in schoolwork ?”, “How often do you feel that school is a place that motivates you to learn ?”, and “How often do you feel that learning is enjoyable for its own sake ?”.

The large percentage of respondents answering ‘rarely or none of the time’ or ‘a

Would you say you perform below average, average, just above average, or much better than average ?”.

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Table 10. Academic self-evaluation

| Academic self-evaluation | Frequency | Percent |
|--------------------------|-----------|---------|
| English                  |           |         |
| Below average            | 140       | 36.5    |
| Average                  | 152       | 39.6    |
| Just above average       | 68        | 7.7     |
| Much better than average | 24        | 6.3     |
| Chinese                  |           |         |
| Below average            | 45        | 11.7    |
| Average                  | 168       | 43.8    |
| Just above average       | 136       | 35.4    |
| Much better than average | 35        | 9.1     |
| Mathematics              |           |         |
| Below average            | 117       | 30.5    |
| Average                  | 147       | 38.3    |
| Just above average       | 76        | 19.8    |
| Much better than average | 44        | 11.5    |

### Perceived value of schooling

How respondents perceived the relevance of schooling was indicated by responses to the following questions: “How often do you feel that schooling is a good preparation for your future ?”, “How often do you feel a sense of being successful in schoolwork ?”, “How often do you feel that school is a place that motivates you to learn ?”, and “How often do you feel that learning is enjoyable for its own sake ?”.

The large percentage of respondents answering ‘rarely or none of the time’ or ‘a

little of the time' to these questions indicate that many respondents were negative toward the value of schooling. In an ascending order of magnitude, the percentage for 'learning is enjoyable for its own sake' was the highest (34.1%); followed by 'school is a place that motivates you to learn' (31.8%), 'feeling a sense of being successful in schoolwork' (31.7%), and 'feeling that schooling is a good preparation for your future' (23.7%).

Table 11. Perceived value of schooling

| Perceived value of schooling              | Frequency | Percent |
|-------------------------------------------|-----------|---------|
| School as good preparation for future     |           |         |
| Rarely or none of the time                | 18        | 4.7     |
| A little of the time                      | 73        | 19.0    |
| Some of the time                          | 195       | 50.8    |
| A good part of the time                   | 57        | 14.8    |
| Most or all of the time                   | 41        | 10.7    |
| Sense of being successful at schoolwork   |           |         |
| Rarely or none of the time                | 42        | 10.9    |
| A little of the time                      | 80        | 20.8    |
| Some of the time                          | 182       | 47.4    |
| A good part of the time                   | 51        | 13.3    |
| Most or all of the time                   | 29        | 7.6     |
| School as a place that motivates to learn |           |         |
| Rarely or none of the time                | 45        | 11.7    |
| A little of the time                      | 77        | 20.1    |
| Some of the time                          | 179       | 46.6    |
| A good part of the time                   | 58        | 15.1    |
| Most or all of the time                   | 25        | 6.5     |
| Learning is enjoyable                     |           |         |
| Rarely or none of the time                | 52        | 13.5    |
| A little of the time                      | 79        | 20.6    |
| Some of the time                          | 167       | 43.5    |
| A good part of the time                   | 54        | 14.1    |
| Most or all of the time                   | 32        | 8.3     |

### Problem behaviour in school

Items of problem behaviour in school include smoking, damage to property, habitual lateness for school, fighting, bullying other kids, possession of pornographic materials, stealing, cheating in test/examination, skipping classes/lessons, use of foul language, and taking drugs.

Table 12 shows the extent of each problem behaviour in terms of a five-point scale.

It was found that quite a substantial proportion of respondents reported such behaviour in the past school year. The highest percentage went to use of foul language (70.6%); followed by fighting (36.7%), bullying other kids (36.5%), habitual lateness for school (33.3%), smoking (28.6%), damage to property (25.5%), cheating in test/examination (22.9%), skipping classes/lessons (18.5%), taking drugs (9.6%), stealing (9.1%), and possession of pornographic materials (6.8%).

However, problem behaviour was generally not very frequent. The only exceptions were use of foul language and smoking for which 40.1 and 16.7 percent occurred more than once per week. Understandably, use of foul language and smoking are expected to occur much more frequently due to the nature of the behaviour.

Table 12. Problem behaviour in school

| Problem behaviour            | Frequency | Percent |
|------------------------------|-----------|---------|
| Smoking                      |           |         |
| Never                        | 274       | 71.4    |
| Less than once per month     | 23        | 6.0     |
| Once or twice per month      | 9         | 2.3     |
| Once per week                | 14        | 3.6     |
| More than once per week      | 64        | 16.7    |
| Damage to property           |           |         |
| Never                        | 286       | 74.5    |
| Less than once per month     | 71        | 18.5    |
| Once or twice per month      | 9         | 2.3     |
| Once per week                | 6         | 1.6     |
| More than once per week      | 12        | 3.1     |
| Habitual lateness for school |           |         |
| Never                        | 256       | 66.7    |
| Less than once per month     | 51        | 13.3    |
| Once or twice per month      | 34        | 8.9     |
| Once per week                | 15        | 3.9     |
| More than once per week      | 28        | 7.3     |
| Fighting                     |           |         |
| Never                        | 243       | 63.3    |
| Less than once per month     | 84        | 21.9    |
| Once or twice per month      | 34        | 8.9     |
| Once per week                | 10        | 2.6     |
| More than once per week      | 13        | 3.4     |
| Bullying other kids          |           |         |
| Never                        | 244       | 63.5    |
| Less than once per month     | 73        | 19.0    |
| Once or twice per month      | 25        | 6.5     |
| Once per week                | 16        | 4.2     |
| More than once per week      | 26        | 6.8     |

|                                      |     |      |
|--------------------------------------|-----|------|
| Possession of pornographic materials |     |      |
| Never                                | 358 | 93.2 |
| Less than once per month             | 14  | 3.6  |
| Once or twice per month              | 7   | 1.8  |
| Once per week                        | 2   | .5   |
| More than once per week              | 3   | .8   |
| Stealing                             |     |      |
| Never                                | 349 | 90.9 |
| Less than once per month             | 27  | 7.0  |
| Once or twice per month              | 2   | .5   |
| Once per week                        | 4   | 1.0  |
| More than once per week              | 2   | .5   |
| Cheating in test/examination         |     |      |
| Never                                | 296 | 77.1 |
| Less than once per month             | 57  | 14.8 |
| Once or twice per month              | 16  | 4.2  |
| Once per week                        | 6   | 1.6  |
| More than once per week              | 9   | 2.3  |
| Skiping classes/lessons              |     |      |
| Never                                | 313 | 81.5 |
| Less than once per month             | 35  | 9.1  |
| Once or twice per month              | 17  | 4.4  |
| Once per week                        | 5   | 1.3  |
| More than once per week              | 14  | 3.6  |
| Use foul language                    |     |      |
| Never                                | 113 | 29.4 |
| Less than once per month             | 64  | 16.7 |
| Once or twice per month              | 31  | 8.1  |
| Once per week                        | 22  | 5.7  |
| More than once per week              | 154 | 40.1 |
| Taking drugs                         |     |      |
| Never                                | 347 | 90.4 |
| Less than once per month             | 11  | 2.9  |
| Once or twice per month              | 14  | 3.6  |
| Once per week                        | 5   | 1.3  |
| More than once per week              | 7   | 1.8  |

### Index construction for family and school experience measures

The possibility of index construction was explored. Specifically, attempts were made to develop indices for measuring family relations, school relations, academic self-evaluation, perceived value of schooling and problem behaviours in school. As mentioned in the plan of analysis, the construction of an index was based on two related criteria: the first criterion requires that the items comprising an index must have positive correlations with one another; the second criterion requires that the resulting index is reliable to the extent that it is acceptable to the research community.

Based on the results of interitem correlations and reliability analyses, an index of perceived value of schooling and an index of problem behaviours were constructed and employed as composite measures in further analyses. The procedures of index construction and the results of the analyses are detailed below.

#### *An index of family relations*

Relationships with parents and siblings were scored with a code of 4, 3, 2 and 1 to represent 'very good', 'good', 'poor', and 'very poor' respectively, and an index of family relationship could be formed by combining the two sets of scores if the two sets of scores were highly correlated. However, the correlation was found to be statistically significant but not large sufficiently to warrant the construction of an index of family relations ( $r = .432, p < .01$ ). As a result, relationships with parents and relationships with siblings were treated as separate measures in subsequent analyses.

#### *An index of school relations*

The same scoring scheme for relationships with parents and siblings was employed for relationships with classmates and teachers. The four points of the scale were scored 4, 3, 2, and 1 to represent 'very good', 'good', 'poor' and 'very poor' respectively. The result of analysis showed that the correlation of the two measures were statistically significant but weak ( $r = .243, p < .01$ ), indicating that the two measures could not be combined into a meaningful index for measuring school relations but should be treated as separate measures in further analyses.

#### *An index of academic self-evaluation*

A three-factor index of academic self-evaluation could be developed by combining the responses to the three academic subjects. A score of 0 was assigned to a respondent each time he/she rated himself/herself as below average; a score of 1, 2, and 3 was assigned to average, just above average and much better than average respectively. The interitem correlations of the three academic subjects were statistically significant ( $p < .01$ ) but rather weak; the correlation of English with Chinese and Mathematics were .264 and .111 respectively, and the correlation of Chinese with Mathematics was .261. The

result of reliability test using the Alpha method (Cronbach Alpha = .4376) further indicated that combining the three items would yield an index with low reliability. Consequently, the measures of the three academic subjects were treated separately in further analyses.

#### *An index of perceived value of schooling*

Perceived value of schooling was indicated by responses to four questions measured on a five-point scale. A score of 1 was assigned to 'rarely or none of the time', 2 to 'a little of the time', 3 to 'some of the time', 4 to 'a good part of the time', and 5 to 'most or all of the time'. All four questions were significantly correlated with one another ( $p < .01$ ), with interitem correlations ranging from .413 to .585. The reliability coefficient of the resulting index was also large sufficiently to indicate reliability (Cronbach Alpha = .8024). An index of perceived value of schooling was thus formed by summing the scores of each question such that the higher the total score, the higher the perceived value of schooling would be.

#### *An index of problem behaviour*

Each problem behaviour was measured by a five-point scale with scores ranging from 0 to 4 indicating 'never', 'less than once per month', 'once or twice per month', 'once per week', and 'more than once per week' respectively. The results of interitem correlation analysis showed that all the interitem correlations were positive and statistically significant, ranging from .117 for skipping classes/lessons and possession of pornographic materials to .569 for skipping classes/lessons and smoking. The reliability coefficient for the index was also sufficiently high to be taken as an evidence of an acceptable level of reliability (Cronbach Alpha = .8490). An index of problem behaviour was thus formed by combining the scores for each problem behaviour into total scores such that the higher the total score, the greater the extent of problem behaviour would be.

#### *Family and school experiences by Form*

In order to provide a more detailed description of family and school experiences,

further analyses were conducted by crosstabulating each experience measure by Form. The purpose of the analyses was to identify how family and school experiences are associated with students attending different Forms. The results are presented in Table 13.

#### *Relationships with parents and siblings*

In the analysis of the overall sample, a substantial proportion of the respondents were found to have poor or very poor relationships with parents and siblings. The crosstabulation analyses showed that the Form 3 students were more likely than the other Forms to have poor or very poor relationships with parents. Specifically, 18.1 percent of the Form 3 students, as compared to those in Form 2 (14.0%) and Form 1 (8.9%), considered their relationships with parents as poor or very poor. The result of the Chi-square test indicated that the relationship was statistically significant (Chi-square = 15.910; df = 6;  $p < .05$ ). The Form 3 students (14.7%) were also more likely than those in Form 2 (5.7%) and Form 1 (11.0%) to perceive poor or very poor relationships with siblings. However, the result of the Chi-square test was not statistically significant.

#### *Relationships with classmates and teachers*

As previously shown, close to ten percent of the respondents perceived their relationship with classmates as poor or very poor; and some twenty percent perceived having poor or very poor relationship with teachers. The results of crosstabulations revealed that the Form 3 students were more likely to relate poorly with classmates, and the Form 2 students were more likely to relate poorly with teachers. As indicated in Table 13, 14.9 percent of the Form 3 students, as compared to 8.1 percent of those in Form 1 and 5.7 percent of those in Form 2, perceived poor or very poor relationships with classmates. On the other hand, the highest percentage of poor or very poor relationships with teachers was found in Form 2 (22.2%); followed by Form 3 (18.9%) and Form 1 (18.6%). However, none of the results was statistically significant.



### Academic self-evaluation

As previously noted, a sizeable proportion of the respondents had low academic self-evaluation in the three core subjects of the secondary school curriculum, and English was rated the lowest among the three subjects. Further analyses showed that the Form 3 students compared more favourably on their performance in English but poorly on their performance in Mathematics and Chinese. For English, only 33.9 percent of the Form 3 students rated themselves as below average as compared to 36.3% and 39.3% of those in Form 1 and Form 2. For Mathematics, 40.2 percent of the Form 3 students rated their performance as below average; as compared to 27.4 percent in Form 1 and 23.8 percent in Form 2. With respect to Chinese, the figure was 14.2 percent for Form 3, 12.3 percent for Form 2, and 8.9 percent for Form 1 respectively. The results of the Chi-square test showed that the self-evaluation of all the three subjects was significantly related to Form (English: Chi-square = 2.342; df = 6;  $p < .05$ ; Chinese: Chi-square = 8.314; df = 6;  $p < .05$ ; Mathematics: Chi-square = 9.639; df = 6;  $p < .05$ ).

### Index of perceived value of schooling

As for perceived value of schooling, the total scores of the index were grouped into five categories ranging from 4 to 17 or higher. Comparison of the different Forms showed that the Form 3 students tended to perceive schooling as less relevant than students in the other Forms. Slightly over one-fifth (22.0%) of the Form 3 students fell into the category with a total score of 8 or lower; but the figures were 16.4 percent for Form 2 and 14.1 percent for Form 1. Thus, the respondents' perceived value of schooling was associated with the Form they were attending. The result of the Chi-square test further showed that the relationship was statistically significant (Chi-square = 21.120; df = 8;  $p < .01$ ).

### Index of problem behaviours

The index of problem behaviour was employed for the purpose of crosstabulation analysis. The total scores of the index were grouped into four categories to crosstabulate with Form. The result of the analysis showed that problem behaviour was more frequent in Form 3; 24.4 percent of the students were found to fall into the category with a total score of 12 or higher. The corresponding figures in the other Forms (23.8% and 11.9%

for Form 2 and Form 1 respectively) also indicated that problem behaviour was the least frequent among the Form 1 students. However, the relationship between Form and problem behaviour was not statistically significant.

Table 13. Family and school experiences by Form

|                                       | Form 1 |      | Form 2 |      | Form 3 |      | Total |      |
|---------------------------------------|--------|------|--------|------|--------|------|-------|------|
|                                       | N      | %    | N      | %    | N      | %    | N     | %    |
| Parent-child relationship             |        |      |        |      |        |      |       |      |
| Very poor                             | 5      | 3.7  | 3      | 2.5  | 3      | 2.4  | 11    | 2.9  |
| Poor                                  | 7      | 5.2  | 14     | 11.5 | 20     | 15.7 | 41    | 10.7 |
| Good                                  | 65     | 48.1 | 70     | 57.4 | 72     | 56.7 | 207   | 53.9 |
| Very good                             | 58     | 43.0 | 35     | 28.7 | 32     | 25.2 | 125   | 32.6 |
| Chi-square = 15.910; df = 6; p < .05  |        |      |        |      |        |      |       |      |
| Sibling-child relationship            |        |      |        |      |        |      |       |      |
| Very poor                             | 2      | 0.7  | 3      | 0.8  | 5      | 4.3  | 10    | 2.9  |
| Poor                                  | 12     | 10.3 | 9      | 4.9  | 12     | 10.4 | 33    | 9.6  |
| Good                                  | 59     | 50.9 | 62     | 63.1 | 70     | 60.9 | 191   | 55.5 |
| Very good                             | 43     | 37.1 | 39     | 31.1 | 28     | 24.3 | 110   | 32.0 |
| Chi-square = 6.186; df = 6; p > .05   |        |      |        |      |        |      |       |      |
| Relationship with classmates          |        |      |        |      |        |      |       |      |
| Very poor                             | 1      | 0.7  | 1      | 0.8  | 4      | 3.1  | 6     | 1.6  |
| Poor                                  | 10     | 7.4  | 6      | 4.9  | 15     | 11.8 | 31    | 8.1  |
| Good                                  | 84     | 61.5 | 77     | 63.1 | 85     | 66.9 | 245   | 63.8 |
| Very good                             | 41     | 30.4 | 38     | 31.1 | 23     | 18.1 | 102   | 26.6 |
| Chi-square = 12.274; df = 6; p > .05  |        |      |        |      |        |      |       |      |
| Relationship with teachers            |        |      |        |      |        |      |       |      |
| Very poor                             | 9      | 6.7  | 9      | 7.4  | 10     | 7.9  | 28    | 7.3  |
| Poor                                  | 16     | 11.9 | 18     | 14.8 | 14     | 11.0 | 48    | 12.5 |
| Good                                  | 89     | 65.9 | 73     | 59.8 | 88     | 69.3 | 250   | 65.1 |
| Very good                             | 21     | 15.6 | 22     | 18.0 | 15     | 11.8 | 58    | 15.1 |
| Chi-square = 3.394; df = 6; p > .05   |        |      |        |      |        |      |       |      |
| Evaluation of English                 |        |      |        |      |        |      |       |      |
| Below average                         | 49     | 36.3 | 48     | 39.3 | 43     | 33.9 | 140   | 36.5 |
| Average                               | 55     | 40.7 | 42     | 34.4 | 55     | 43.3 | 152   | 39.6 |
| Just above average                    | 23     | 17.0 | 23     | 18.9 | 22     | 17.3 | 68    | 17.7 |
| Much better than average              | 8      | 5.9  | 9      | 7.4  | 7      | 5.5  | 24    | 6.3  |
| Chi-square = 2.342; df = 6; p < .05   |        |      |        |      |        |      |       |      |
| Evaluation of Chinese                 |        |      |        |      |        |      |       |      |
| Below average                         | 12     | 8.9  | 15     | 12.3 | 18     | 14.2 | 45    | 11.7 |
| Average                               | 51     | 37.8 | 61     | 50.0 | 56     | 44.1 | 168   | 43.8 |
| Just above average                    | 57     | 42.2 | 35     | 28.7 | 44     | 34.6 | 136   | 35.4 |
| Much better than average              | 15     | 11.1 | 11     | 9.0  | 9      | 7.1  | 35    | 9.1  |
| Chi-square = 8.314; df = 6; p < .05   |        |      |        |      |        |      |       |      |
| Evaluation of mathematics             |        |      |        |      |        |      |       |      |
| Below average                         | 37     | 27.4 | 29     | 23.8 | 51     | 40.2 | 117   | 30.5 |
| Average                               | 55     | 40.7 | 49     | 40.2 | 43     | 33.9 | 147   | 38.3 |
| Just above average                    | 29     | 21.5 | 27     | 22.1 | 20     | 15.7 | 76    | 19.8 |
| Much better than average              | 14     | 10.4 | 17     | 13.9 | 13     | 10.2 | 44    | 11.5 |
| Chi-square = 9.639; df = 6; p < .05   |        |      |        |      |        |      |       |      |
| Index of perceived value of schooling |        |      |        |      |        |      |       |      |
| A score of 4                          | 5      | 3.7  | 3      | 2.5  | 0      | 0.0  | 8     | 2.1  |
| A score between 5-8                   | 14     | 10.4 | 17     | 13.9 | 28     | 22.0 | 59    | 15.4 |
| A score between 9-12                  | 57     | 42.2 | 63     | 51.6 | 54     | 42.5 | 174   | 45.3 |
| A score between 13-16                 | 50     | 37.0 | 27     | 22.1 | 41     | 32.3 | 118   | 30.7 |
| A score of 17 or higher               | 9      | 6.7  | 12     | 9.8  | 4      | 3.1  | 25    | 6.5  |
| Chi-square = 21.120; df = 8; p < .01  |        |      |        |      |        |      |       |      |
| Index of problem behaviour            |        |      |        |      |        |      |       |      |
| A score of 0                          | 36     | 26.7 | 22     | 18.0 | 21     | 16.5 | 79    | 20.6 |
| A score between 1-11                  | 83     | 61.5 | 71     | 58.2 | 75     | 59.1 | 229   | 59.6 |

|                                      |    |     |    |      |    |      |    |      |
|--------------------------------------|----|-----|----|------|----|------|----|------|
| A score between 12-22                | 12 | 8.9 | 21 | 17.2 | 24 | 18.9 | 57 | 14.8 |
| A score of 23 or higher              | 4  | 3.0 | 8  | 6.6  | 7  | 5.5  | 19 | 4.9  |
| Chi-square = 10.840; df = 6; p > .05 |    |     |    |      |    |      |    |      |

### Family and school experiences by gender

Further description of the family and school experience measures was based on the results of crosstabulations with gender. The results are presented in Tables 14.

#### Relationships with parents and siblings

Crosstabulation of the measure of relationships with parents by gender showed that the female students were more likely than the male students to have poor or very poor relationships with parents. Table 14 showed that a higher percentage of the female students (15.1%) than male students (12.4%) perceived having poor or very poor relationships with parents. The female students were also more likely than their male counterparts to have poor or very poor relationships with siblings; the respective figures were 16.8% and 9.3%. However, the results of the Chi-square test indicated that the gender was not significantly associated with either of the relationship measures.

#### Relationships with classmates and teachers

A reverse pattern was found for relationships with classmates and teachers. In both measures, the female students tended to show better relationships. Only 6.3 percent of the female students, as compared to 12.0 percent of the male students, perceived having poor or very poor relationships with classmates. The figures for relationships with teachers also suggested that girls related better with teachers than boys; 16.4 percent of girls, as compared to 22.2 percent of boys, perceived having poor or very poor relationships with teachers. Despite the percentage differences, gender was not found to be significantly associated with either of the relationship measures.

#### Academic self-evaluation

Academic self-evaluation was generally more positive for girls. They tended to rate themselves higher in English and Chinese but lower in Mathematics; 28.9 and 6.3 percent of them rated their performance in English and Chinese as below average, but

34.6 percent them rated their performance in Mathematics as below average. The corresponding figures for the male students were 41.8 percent for English and 15.6 percent for Chinese, and 27.6 percent for Mathematics. The gender differences suggested that gender and academic self-evaluation are related. The relationship was found to be statistically significant for each of the subjects being evaluated (English: Chi-square = 10.802; df = 3;  $p < .05$ ; Chinese: Chi-square = 7.992; df = 3;  $p < .05$ ; Mathematics: Chi-square = 5.078; df = 3;  $p < .05$ ).

### Index of perceived value of schooling

Although the female students rated themselves as generally higher than their male counterparts, they were less likely to perceive schooling as relevant. Over one-fifth (21.4%) of them had a total score of 8 or lower on the index of perceived value of schooling, as compared to 14.7 percent of the male students. However, the relationship between gender and perceived value of schooling was not statistically significant.

### Index of problem behaviour

Problem behaviours were also more frequent among the female students; 22.7 percent of them, as compared to 17.7 percent of the male students, had a total score of 12 or higher on the index of problem behaviour. However, the result of the Chi-square test showed that gender and problem behaviour were not significantly related.

Table 14. Family and school experiences by gender

|                                       | Male |      | Female |      | Total |      |
|---------------------------------------|------|------|--------|------|-------|------|
|                                       | N    | %    | N      | %    | N     | %    |
| Parent-child relationship             |      |      |        |      |       |      |
| Very poor                             | 5    | 2.2  | 6      | 3.8  | 11    | 2.9  |
| Poor                                  | 23   | 10.2 | 18     | 11.3 | 41    | 10.7 |
| Good                                  | 118  | 52.4 | 89     | 56.0 | 207   | 53.9 |
| Very good                             | 79   | 35.1 | 46     | 28.9 | 125   | 32.6 |
| Chi-square = 2.197; df = 3; $p > .05$ |      |      |        |      |       |      |
| Sibling-child relationship            |      |      |        |      |       |      |
| Very poor                             | 5    | 2.6  | 5      | 3.4  | 10    | 2.9  |
| Poor                                  | 13   | 6.7  | 20     | 13.4 | 33    | 9.6  |
| Good                                  | 118  | 60.5 | 73     | 49.0 | 191   | 55.5 |
| Very good                             | 59   | 30.3 | 51     | 34.2 | 110   | 32.0 |
| Chi-square = 6.636; df = 3; $p > .05$ |      |      |        |      |       |      |
| Relationship with classmates          |      |      |        |      |       |      |
| Very poor                             | 6    | 2.7  | 0      | 0.0  | 6     | 1.6  |
| Poor                                  | 21   | 9.3  | 10     | 6.3  | 31    | 8.1  |
| Good                                  | 140  | 62.2 | 105    | 66.0 | 245   | 63.8 |
| Very good                             | 58   | 25.8 | 44     | 27.7 | 102   | 26.6 |
| Chi-square = 5.648; df = 3; $p > .05$ |      |      |        |      |       |      |

|                                           |     |      |     |      |     |      |
|-------------------------------------------|-----|------|-----|------|-----|------|
| Relationship with teachers                |     |      |     |      |     |      |
| Very poor                                 | 22  | 9.8  | 6   | 3.8  | 28  | 7.3  |
| Poor                                      | 28  | 12.4 | 20  | 12.6 | 48  | 12.5 |
| Good                                      | 142 | 63.1 | 108 | 67.9 | 250 | 65.1 |
| Very good                                 | 33  | 14.7 | 25  | 15.7 | 58  | 15.1 |
| Chi-square = 5.008; df = 3; p > .05       |     |      |     |      |     |      |
| Evaluation of English                     |     |      |     |      |     |      |
| Below average                             | 94  | 41.8 | 46  | 28.9 | 140 | 36.5 |
| Average                                   | 74  | 32.9 | 78  | 49.1 | 152 | 39.6 |
| Just above average                        | 42  | 18.7 | 26  | 16.4 | 68  | 17.7 |
| Much better than average                  | 15  | 6.7  | 9   | 5.7  | 24  | 6.3  |
| Chi-square = 10.802; df = 3; p < .05      |     |      |     |      |     |      |
| Evaluation of Chinese                     |     |      |     |      |     |      |
| Below average                             | 35  | 15.6 | 10  | 6.3  | 45  | 11.7 |
| Average                                   | 93  | 41.3 | 75  | 47.2 | 168 | 43.8 |
| Just above average                        | 76  | 33.8 | 60  | 37.7 | 136 | 35.4 |
| Much better than average                  | 21  | 9.3  | 14  | 8.8  | 35  | 9.1  |
| Chi-square = 7.992; df = 3; p < .05       |     |      |     |      |     |      |
| Evaluation of Mathematics                 |     |      |     |      |     |      |
| Below average                             | 62  | 27.6 | 55  | 34.6 | 117 | 30.5 |
| Average                                   | 83  | 36.9 | 64  | 40.3 | 147 | 38.3 |
| Just above average                        | 50  | 22.2 | 26  | 16.4 | 76  | 19.8 |
| Much better than average                  | 30  | 13.3 | 14  | 8.8  | 44  | 11.5 |
| Chi-square = 5.078; df = 3; p < .05       |     |      |     |      |     |      |
| Index of belief in the value of schooling |     |      |     |      |     |      |
| A score of 4                              | 4   | 1.8  | 4   | 2.5  | 8   | 2.1  |
| A score between 5-8                       | 29  | 12.9 | 30  | 18.9 | 59  | 15.4 |
| A score between 9-12                      | 105 | 46.7 | 69  | 43.4 | 174 | 45.3 |
| A score between 13-16                     | 75  | 33.3 | 43  | 27.0 | 118 | 30.7 |
| A score of 17 or higher                   | 12  | 5.3  | 13  | 8.2  | 25  | 6.5  |
| Chi-square = 4.987; df = 4; p > .05       |     |      |     |      |     |      |
| Index of problem behaviour in school      |     |      |     |      |     |      |
| A score of 0                              | 38  | 16.9 | 41  | 25.8 | 79  | 20.6 |
| A score between 1-11                      | 147 | 65.3 | 82  | 51.6 | 229 | 59.6 |
| A score between 12-22                     | 30  | 13.3 | 27  | 17.0 | 57  | 14.8 |
| A score of 23 or higher                   | 10  | 4.4  | 9   | 5.7  | 19  | 4.9  |
| Chi-square = 7.657; df = 3; p > .05       |     |      |     |      |     |      |

### Family and school experiences by Form and gender

Additional analyses involved crosstabulations of the family and school experience measures with Form and gender, and the results are presented in Table 15.

#### Relationships with parents and siblings

Crosstabulations by Form and gender showed that proportionally more male students in Form 2 (16.2%) had poor or very poor relationships with parents than the other Forms (11.8% and 9.9% in Form 3 and Form 1 respectively). As for female students, the figures were 27.4 percent in Form 3, 11.1 percent in Form 2, and 7.4 percent in Form 1. The differences across Forms in each gender group substantiated the previous finding that Form and relationships with parents were related. However, the relationship was found to be statistically significant only for the female group

(Chi-square = 18.753; df = 6;  $p < .01$ ).

With respect to relationships with siblings, 10.6 percent of the boys in Form 1 were found to have poor or very poor relationships; as compared to 9.6 percent of the boys in Form 2 and 7.5 percent of those in Form 3. Among the female students, the highest percentage with poor or very poor relationships was found in Form 3 (25.0%); followed by 14.0 percent in Form 1 and 11.8 percent in Form 2. For both gender groups, the relationship between Form and relationships with siblings was not statistically significant.

#### *Relationships with classmates and teachers*

Analysis to uncover the relationship between Form and relationships with teachers and siblings showed that proportionally more male students in Form 3 (19.8%) reported poor or very poor relationships with classmates than those in Form 2 (8.9%) and Form 1 (7.4%); but proportionally more male students in Form 2 (29.4%) reported poor or very poor relationships with teachers than the other Forms (20.9% in Form 1 and 17.1% in Form 3 respectively).

Among girls, Form 1 had the highest percentage (9.3%) with poor or very poor relationships with classmates; followed by Form 2 (8.9%) and Form 3 (7.8%). However, proportionally more Form 3 girls (21.5%) perceived having poor or very poor relationships with teachers than the other Forms (14.8% in Form 1 and 13.0% in Form 2).

#### *Academic self-evaluation*

The relationship between Form and academic self-evaluation was explored for each gender group. Among boys, proportionally more of those in Form 2 rated their performance in both languages as below average (English: 48.5%; Chinese: 17.6%) than those in Form 3 (English: 39.5%; Chinese: 17.1%) and Form 1 (English: 38.3%; Chinese: 12.3%). With respect to Mathematics, 35.5 percent of those in Form 3, as compared to 26.5 percent of those in Form 2 and 21.0 percent of those in Form 1, rated their abilities as below average.

Among girls, proportionally more of those in Form 1 (33.3%) rated their performance in English as below average; as compared to 27.8 percent of those in Form 2 and 25.5 percent of those in Form 3. The patterns for Chinese and Mathematics were somewhat different. The percentage with a below average rating in Chinese was the highest for Form 3 (9.8%); followed by Form 2 (5.6%) and Form 1 (3.7%); whereas the percentage with a below average rating in Mathematics was the highest for Form 3 (47.1%), but followed by Form 1 (37.0%) and Form 2 (20.4%).

In the previous analysis, Form was found to be significantly related to self-evaluation in each of the core subjects. A further examination of this relationship in each gender group revealed that only the relationship for Mathematics remained significant only for the female group (Chi-square = 13.644; df = 6;  $p < .05$ ).

#### Index of perceived value of schooling

Proportionally more Form 3 boys (18.4%) than boys in Form 2 (13.2%) and Form 1 (12.4%) had a total score of 8 or less on the index of perceived value of schooling. Apparently, the Form 3 boys tended to perceive schooling as less relevant than boys in the other Forms.

Similar pattern was observed among girls; 27.5 percent of the Form 3 girls had a total score of 8 or less; as compared to 20.4 percent in Form 2 and 16.7 percent in Form 1.

These findings seemed to support the previous observation that Form was significantly related to perceived value of schooling. However, further analysis of this relationship in each gender group showed that the relationship was observed simply because the influence of gender had not been accounted for. As a matter of fact, the relationship was statistically significant only for girls (Chi-square = 26.998; df = 8;  $p < .01$ ) but not for boys.

#### Index of problem behaviour

Problem behaviour occurred most frequently among Form 2 boys and Form 3 girls. As shown in Table 15, 23.5 percent of the Form 2 boys and 33.4 percent of the Form 3

girls had a total score of 12 or higher on the index of problem behaviour. The corresponding figures for Form 3 and Form 1 boys were 18.5 and 12.4 percent respectively; whereas those for Form2 and Form 1 girls were 24.1 and 11.1 percent.

Form was not found to be significantly associated with problem behaviour when the relationship was analyzed separately for each gender group. The results were consistent with the previous finding that Form and problem behaviour were not significantly related.

Table 15. Family and school experiences by Form and gender (in percent)

|                                                                                        | Form 1<br>Male (N=81) Female (N=54) |      | Form 2<br>Male (N=68) Female (N=54) |      | Form 3<br>Male (N=76) Female (N=51) |      | Total<br>Male (N=225) Female (N=159) |      |
|----------------------------------------------------------------------------------------|-------------------------------------|------|-------------------------------------|------|-------------------------------------|------|--------------------------------------|------|
| Parent-child relationship                                                              |                                     |      |                                     |      |                                     |      |                                      |      |
| Very poor                                                                              | 3.7                                 | 3.7  | 1.5                                 | 3.7  | 1.3                                 | 3.9  | 2.2                                  | 3.8  |
| Poor                                                                                   | 6.2                                 | 3.7  | 14.7                                | 7.4  | 10.5                                | 23.5 | 10.2                                 | 11.3 |
| Good                                                                                   | 45.7                                | 51.9 | 58.8                                | 55.6 | 53.9                                | 60.8 | 52.4                                 | 56.0 |
| Very good                                                                              | 44.4                                | 40.7 | 25.0                                | 33.3 | 34.2                                | 11.8 | 35.1                                 | 28.9 |
| Male: Chi-square = 9.172; df = 6; p > .05 Female: Chi-square = 18.753; df = 6; p < .01 |                                     |      |                                     |      |                                     |      |                                      |      |
| Sibling-child relationship                                                             |                                     |      |                                     |      |                                     |      |                                      |      |
| Very poor                                                                              | 1.5                                 | 2.0  | 4.8                                 | 0.0  | 1.5                                 | 8.3  | 2.6                                  | 3.4  |
| Poor                                                                                   | 9.1                                 | 12.0 | 4.8                                 | 11.8 | 6.0                                 | 16.7 | 6.7                                  | 13.4 |
| Good                                                                                   | 53.0                                | 48.0 | 62.9                                | 45.1 | 65.7                                | 54.2 | 60.5                                 | 49.0 |
| Very good                                                                              | 36.4                                | 38.0 | 27.4                                | 43.1 | 26.9                                | 20.8 | 30.3                                 | 34.2 |
| Male: Chi-square = 4.973; df = 6; p > .05 Female: Chi-square = 10.422; df = 6; p > .05 |                                     |      |                                     |      |                                     |      |                                      |      |
| Relationship with classmates                                                           |                                     |      |                                     |      |                                     |      |                                      |      |
| Very poor                                                                              | 1.2                                 | 0.0  | 1.5                                 | 0.0  | 5.3                                 | 0.0  | 2.7                                  | 0.0  |
| Poor                                                                                   | 6.2                                 | 9.3  | 7.4                                 | 1.9  | 14.5                                | 7.8  | 9.3                                  | 6.3  |
| Good                                                                                   | 63.0                                | 59.3 | 63.2                                | 63.0 | 60.5                                | 76.5 | 62.2                                 | 66.0 |
| Very good                                                                              | 29.6                                | 31.5 | 27.9                                | 35.2 | 19.7                                | 15.7 | 25.8                                 | 27.7 |
| Male: Chi-square = 7.932; df = 6; p > .05 Female: Chi-square = 7.970; df = 4; p > .05  |                                     |      |                                     |      |                                     |      |                                      |      |
| Relationship with teachers                                                             |                                     |      |                                     |      |                                     |      |                                      |      |
| Very poor                                                                              | 8.6                                 | 3.7  | 10.3                                | 3.7  | 10.5                                | 3.9  | 9.8                                  | 3.8  |
| Poor                                                                                   | 12.3                                | 11.1 | 19.1                                | 9.3  | 6.6                                 | 17.6 | 12.4                                 | 12.6 |
| Good                                                                                   | 63.0                                | 70.4 | 57.4                                | 63.0 | 68.4                                | 70.6 | 63.1                                 | 67.9 |
| Very good                                                                              | 16.0                                | 14.8 | 13.2                                | 24.1 | 14.5                                | 7.8  | 14.7                                 | 15.7 |
| Male: Chi-square = 5.604; df = 6; p > .05 Female: Chi-square = 6.345; df = 6; p > .05  |                                     |      |                                     |      |                                     |      |                                      |      |
| Evaluation of English                                                                  |                                     |      |                                     |      |                                     |      |                                      |      |
| Below average                                                                          | 38.3                                | 33.3 | 48.5                                | 27.8 | 39.5                                | 25.5 | 41.8                                 | 28.9 |
| Average                                                                                | 29.6                                | 57.4 | 27.9                                | 42.6 | 40.8                                | 47.1 | 32.9                                 | 49.1 |
| Just above average                                                                     | 22.2                                | 9.3  | 19.1                                | 18.5 | 14.5                                | 21.6 | 18.7                                 | 16.4 |
| Much better than average                                                               | 9.9                                 | 0.0  | 4.4                                 | 11.1 | 5.3                                 | 5.9  | 6.7                                  | 5.7  |
| Male: Chi-square = 6.554; df = 6; p > .05 Female: Chi-square = 10.425; df = 6; p > .05 |                                     |      |                                     |      |                                     |      |                                      |      |
| Evaluation of Chinese                                                                  |                                     |      |                                     |      |                                     |      |                                      |      |
| Below average                                                                          | 12.3                                | 3.7  | 17.6                                | 5.6  | 17.1                                | 9.8  | 15.6                                 | 6.3  |
| Average                                                                                | 34.6                                | 42.6 | 47.1                                | 53.7 | 43.3                                | 45.1 | 41.3                                 | 47.2 |
| Just above average                                                                     | 38.3                                | 48.1 | 26.5                                | 31.5 | 35.5                                | 33.3 | 33.8                                 | 37.7 |
| Much better than average                                                               | 14.8                                | 5.6  | 8.8                                 | 9.3  | 3.9                                 | 11.8 | 9.3                                  | 8.8  |
| Male: Chi-square = 8.978; df = 6; p > .05 Female: Chi-square = 5.938; df = 6; p > .05  |                                     |      |                                     |      |                                     |      |                                      |      |
| Evaluation of mathematics                                                              |                                     |      |                                     |      |                                     |      |                                      |      |
| Below average                                                                          | 21.0                                | 37.0 | 26.5                                | 20.4 | 35.5                                | 47.1 | 27.6                                 | 34.6 |
| Average                                                                                | 38.3                                | 44.4 | 39.7                                | 40.7 | 32.9                                | 35.3 | 36.9                                 | 40.3 |
| Just above average                                                                     | 27.2                                | 13.0 | 22.1                                | 22.2 | 17.1                                | 13.7 | 22.2                                 | 16.4 |
| Much better than average                                                               | 13.6                                | 5.6  | 11.8                                | 16.7 | 14.5                                | 3.9  | 13.3                                 | 8.8  |
| Male: Chi-square = 5.555; df = 6; p > .05 Female: Chi-square = 13.644; df = 6; p < .05 |                                     |      |                                     |      |                                     |      |                                      |      |



|                                                                                              |      |      |      |      |      |      |      |      |
|----------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|
| Index of belief in the value of schooling                                                    |      |      |      |      |      |      |      |      |
| A score of 4                                                                                 | 2.5  | 5.6  | 2.9  | 1.9  | 0.0  | 0.0  | 1.8  | 2.5  |
| A score between 5-8                                                                          | 9.9  | 11.1 | 10.3 | 18.5 | 18.4 | 27.5 | 12.9 | 18.9 |
| A score between 9-12                                                                         | 42.0 | 42.6 | 58.8 | 42.6 | 40.8 | 45.1 | 46.7 | 43.4 |
| A score between 13-16                                                                        | 35.8 | 38.9 | 26.5 | 16.7 | 36.8 | 25.5 | 33.3 | 27.0 |
| A score of 17 or higher                                                                      | 9.9  | 1.9  | 1.5  | 20.4 | 3.9  | 2.0  | 5.3  | 8.2  |
| Male: Chi-square = 14.615; df = 8; p > .05      Female: Chi-square = 26.998; df = 8; p < .01 |      |      |      |      |      |      |      |      |
| Index of problem behaviour in school                                                         |      |      |      |      |      |      |      |      |
| A score of 0                                                                                 | 23.5 | 31.5 | 13.2 | 24.1 | 13.2 | 21.6 | 16.9 | 25.8 |
| A score between 1-11                                                                         | 64.2 | 57.4 | 63.2 | 51.9 | 68.4 | 45.1 | 65.3 | 51.6 |
| A score between 12-22                                                                        | 9.9  | 7.4  | 17.6 | 16.7 | 13.2 | 27.5 | 13.3 | 17.0 |
| A score of 23 or higher                                                                      | 2.5  | 3.7  | 5.9  | 7.4  | 5.3  | 5.9  | 4.4  | 5.7  |
| Male: Chi-square = 6.224; df = 6; p > .05      Female: Chi-square = 8.735; df = 6; p > .05   |      |      |      |      |      |      |      |      |

## Summary

The findings of this chapter indicated that socially, the family and school experiences of the respondents were generally positive. The majority perceived themselves as having good relationships with parents, siblings, classmates and teachers. However, a sizeable proportion of the respondents tended to have low evaluation of themselves in the three core subjects of the secondary school curriculum. They rated their performance as below average in comparison to other students in the same class. Furthermore, a large percentage of the respondents did not seem to be interested in school and did not believe in the relevance of schooling for learning and preparation for their future. The high incidence of self-reported problem behaviour in school further suggests that some of the respondents were experiencing difficulties in adjusting to school.

Compared to other Forms, the Form 3 students were more likely have poor relationships with parents, siblings, and classmates; and Form 2 students were more likely to have poor relationships with teachers. In terms of academic self-evaluation, the Form 3 students compared poorly with the students in the other two Forms on both Chinese and Mathematics but compared more favourably on their performance in English. Interestingly, the Form 3 students also tended to perceive schooling as less relevant and to exhibit problem behaviour more frequently than those in the other Forms.

Gender differences showed that girls tended to be more likely than boys to have poor relationships with parents and siblings but better relationships with teachers. Girls also tended to be more positive in their evaluation of their ability in English and

Chinese but less positive in Mathematics than boys. Despite a higher self-evaluation, they were less likely than boys to perceive schooling as relevant. Problem behaviour was also more frequent among girls although the gender differences were only slight.

Analyses of Form and gender simultaneously provided more specific information on the subgroups. Proportionally, more Form 3 girls than the other subgroups had poor relationships with parents and siblings. With respect to social relations within school, proportionally more Form 3 boys related poorly with classmates and proportionally more Form 2 boys related poorly or very poorly with teachers than other subgroups. Form 2 boys were more likely than other subgroups to rate their performance in English and Chinese as below average; whereas the Form 3 girls were most likely to have a low self-evaluation of ability in Mathematics. Form 3 girls were also more likely to perceive schooling as less relevant and to have problem behaviour than the other subgroups.

The respondents' family and school experiences have been examined in relation to Form and gender. Status differences in personal and family characteristics, and family and school experiences will also be examined to identify how truants and non-truants may differ with respect to these variables.

As pointed out in Chapter V, the truants consist of two subgroups to represent two patterns of school absence behaviour in Hong Kong (Hong Kong Council of Social Service, 1980). Specifically, the "truancy" cases refer to students with absence from school for less than 14 days in a school year without knowledge or consent of their guardians/parents or school authority; whereas the "non-attendance" cases refer to students with absence from school for 14 days or more in a school year without approval from their guardian/parents or the school authority. Of the 384 students recruited from the four "band 5" schools, 255 were non-truants, 101 were "truancy" cases, and only 28 were cases of "non-attendance".

However, status differences in personal and family characteristics were examined with the sampled children divided into two groups with the two truant subgroups combined into one truant group with 129 truants. The treatment of these characteristics as nominal variables and relating these characteristics to truancy status called for crosstabulation analyses and the use of the Chi-square test as a test of statistical

significance (Bryman & Cramer, 1998). The decision to include only two groups in the analyses was made in view of the small number of cases in the “non-attendance” subgroup. The allocation of such a small number of cases to categories of the other variables would result in more than 20 percent of the cells with an expected frequency of less than 5, which would render the results of the Chi-square test unreliable (Bryman & Cramer, 1998).

### PERSONAL AND FAMILY CHARACTERISTICS AND TRUANCY

The personal and family characteristics to be crosstabulated with truancy status included Form attended, age, gender, migrant status, religious affiliation, number of siblings, type of family, type of accommodation, parents’ educational attainment, and parents’ occupational status. The purpose of the analyses was to identify those personal and family characteristics that may provide a contextualized account of truancy.

The results (see Table 16) showed that the truants and non-truants had more or less the same personal and family background. Most of the truants and non-truants were male (truants: 52.7%; non-truants: 61.6%) permanent residents (truants: 91.5%; non-truants: 90.6%) with no religious affiliation (truants: 69.0%; non-truants: 70.6%) who came from intact families (truants: 83.7%; non-truants: 81.6%) located in public or other types of housing provided for the low income groups (truants: 68.2%; non-truant: 67.1%). The fathers of most truants and non-truants had attained an education of secondary school (truants: 57.5%; non-truants: 59.9%), and holding service occupations (truants: 25.8%; non-truants: 28.5%) and manual work (truant: 34.7; non-truant: 35.3%). Similar patterns were found for mothers. Most of the mothers had attained secondary school education (truant: 51.3%; non-truant: 59.0%) and were either housewives (truants: 46.8%; non-truant: 52.2%) or employed as a service worker (truant: 22.6%; non-truant: 17.3%) or manual worker (truant: 17.7%; non-truant: 12.9%).

Some differences were observed for Form attended, age, and number of siblings. The truants, as compared to the non-truants, tended to be older, with no more than one sibling, and more likely to be found in Form 3. As shown in Table 16, more than three-quarters (75.2%) of the truants were aged 14 or 15, as compared to only 48.6 percent of the non-truants. Although the difference was small, proportionally more

truants (38.8%) than non-truants (30.2%) were attending Form 3, and had no more than one sibling (truant: 50.4%; non-truant: 47.1%). The results of the Chi-square test showed that only age was significantly related to truancy (Chi-square = 32.202; df = 3;  $p < .01$ ).

Table 16. Personal and family characteristics and truancy status

|                                           | Non-truant |      | Truant |      | Total |      |
|-------------------------------------------|------------|------|--------|------|-------|------|
|                                           | N          | %    | N      | %    | N     | %    |
| Form                                      |            |      |        |      |       |      |
| Form 1                                    | 96         | 37.6 | 39     | 30.2 | 135   | 35.2 |
| Form 2                                    | 82         | 32.2 | 40     | 31.0 | 122   | 31.8 |
| Form 3                                    | 77         | 30.2 | 50     | 38.8 | 127   | 33.1 |
| Chi-square = 3.275; df = 3; $p > .05$     |            |      |        |      |       |      |
| Age                                       |            |      |        |      |       |      |
| 12                                        | 62         | 24.3 | 14     | 10.9 | 76    | 19.8 |
| 13                                        | 69         | 27.1 | 18     | 14.0 | 87    | 22.7 |
| 14                                        | 92         | 36.1 | 56     | 43.4 | 148   | 38.5 |
| 15                                        | 32         | 12.5 | 41     | 31.8 | 73    | 19.0 |
| Chi-square = 32.202; df = 3; $p < .01$    |            |      |        |      |       |      |
| Gender                                    |            |      |        |      |       |      |
| Male                                      | 157        | 61.6 | 68     | 52.7 | 225   | 58.6 |
| Female                                    | 98         | 38.4 | 61     | 47.3 | 159   | 41.4 |
| Chi-square = 2.769; df = 1; $p > .05$     |            |      |        |      |       |      |
| Migrant Status                            |            |      |        |      |       |      |
| New immigrants                            | 24         | 9.4  | 11     | 8.5  | 35    | 9.1  |
| Permanent residents                       | 231        | 90.6 | 118    | 91.5 | 349   | 90.9 |
| Chi-square = 0.081; df = 1; $p > .05$     |            |      |        |      |       |      |
| Religious affiliation                     |            |      |        |      |       |      |
| No religion                               | 180        | 70.6 | 89     | 69.0 | 269   | 70.1 |
| Catholic/Christian                        | 39         | 15.3 | 20     | 15.5 | 59    | 15.4 |
| Buddhist/Taoist/Muslim                    | 36         | 14.1 | 20     | 15.5 | 56    | 14.6 |
| Chi-square = 0.146; df = 2; $p > .05$     |            |      |        |      |       |      |
| Number of siblings                        |            |      |        |      |       |      |
| 1 or none                                 | 120        | 47.1 | 65     | 50.4 | 185   | 48.2 |
| 2 or more                                 | 135        | 52.9 | 64     | 49.6 | 199   | 51.8 |
| Chi-square = 0.380; df = 1; $p > .05$     |            |      |        |      |       |      |
| Type of family                            |            |      |        |      |       |      |
| Intact                                    | 208        | 81.6 | 108    | 83.7 | 316   | 82.3 |
| Broken                                    | 47         | 18.4 | 21     | 16.3 | 68    | 17.7 |
| Chi-square = 0.272; df = 1; $p > .05$     |            |      |        |      |       |      |
| Type of accommodation                     |            |      |        |      |       |      |
| Public or other                           | 171        | 67.1 | 88     | 68.2 | 259   | 67.4 |
| Private                                   | 84         | 32.9 | 41     | 31.8 | 125   | 32.6 |
| Chi-square = 0.052; df = 1; $p > .05$     |            |      |        |      |       |      |
| Father's Educational Attainment (N = 335) |            |      |        |      |       |      |
| Primary or below                          | 76         | 34.2 | 41     | 36.3 | 117   | 34.9 |
| Secondary                                 | 133        | 59.9 | 65     | 57.5 | 198   | 59.1 |
| Further/Higher education                  | 13         | 5.9  | 7      | 6.2  | 20    | 6.0  |
| Chi-square = 0.177; df = 2; $p > .05$     |            |      |        |      |       |      |
| Mother's Educational Attainment (N = 335) |            |      |        |      |       |      |
| Primary or below                          | 81         | 36.5 | 51     | 45.1 | 132   | 39.4 |
| Secondary                                 | 131        | 59.0 | 58     | 51.3 | 189   | 56.4 |

|                                        |     |      |    |      |     |      |
|----------------------------------------|-----|------|----|------|-----|------|
| Further/Higher education               | 10  | 4.5  | 4  | 3.5  | 14  | 4.2  |
| Chi-square = 2.371; df = 2; p > .05    |     |      |    |      |     |      |
| Father's Occupational Status (N = 373) |     |      |    |      |     |      |
| Professional and technical             | 18  | 7.2  | 5  | 4.0  | 23  | 6.2  |
| Administrative and managerial          | 14  | 5.6  | 9  | 7.3  | 23  | 6.2  |
| Clerical                               | 4   | 1.6  | 5  | 4.0  | 9   | 2.4  |
| Sales                                  | 20  | 8.0  | 8  | 6.5  | 28  | 7.5  |
| Service                                | 71  | 28.5 | 32 | 25.8 | 103 | 27.6 |
| Manual worker                          | 88  | 35.3 | 43 | 34.7 | 131 | 35.1 |
| Other /No job                          | 34  | 13.7 | 22 | 17.7 | 56  | 15.0 |
| Chi-square = 5.176; df = 6; p > .05    |     |      |    |      |     |      |
| Mother's Occupational Status (N = 373) |     |      |    |      |     |      |
| Professional and technical             | 8   | 3.2  | 2  | 1.6  | 10  | 2.7  |
| Administrative and managerial          | 1   | 0.4  | 3  | 2.4  | 4   | 1.1  |
| Clerical                               | 11  | 4.4  | 6  | 4.8  | 17  | 4.6  |
| Sales                                  | 24  | 9.6  | 5  | 4.0  | 29  | 7.8  |
| Service                                | 43  | 17.3 | 28 | 22.6 | 71  | 19.0 |
| Manual worker                          | 32  | 12.9 | 22 | 17.7 | 54  | 14.5 |
| Housewife                              | 130 | 52.2 | 58 | 46.8 | 188 | 50.4 |
| Chi-square = 10.391; df = 6; p > .05   |     |      |    |      |     |      |

### FAMILY AND SCHOOL EXPERIENCES AND TRUANCY STATUS

Following a description of the personal and family characteristics of the truants, the truants' family and school experiences will be described and compared with the non-truants. Three groups of analyses were performed on the family and school experience measures using truancy status as a grouping variable. The type of analysis was determined by the treatment of the family and school experience measures in relation to level of measurement.

The treatment of these measures as nominal variables requires that the crosstabulation technique be employed to examine how family and school experiences are related to truancy. Crosstabulation is a method for demonstrating the presence or absence of a relationship between two nominal variables. One of the tasks is to indicate whether or not the observed relationship is statistically significant. The test of statistical significance is called a Chi-square test. The objective of the Chi-Square test is to determine the extent to which the observed and expected frequencies are different. A probability associated with the calculated value of Chi-square of .05 or less will lead to the rejection of the null hypothesis of no difference. To guard against the possibility of achieving unreliable results, the sample was divided according to "truancy status" into two groups to represent the non-truants and the truants.

The treatment of the family and school experience measures as ordinal variables, on the other hand, requires that a nonparametric test be employed. In the present thesis,

both the Mann-Whitney U test and the Kruskal-Wallis One-way Analysis of Variance of Ranks were employed.

The Mann-Whitney U test, which compares the mean rank of the ratings for two groups (Bryman & Cramer, 1998), was performed with the sample divided according to "truancy status" into two groups. The purpose was to determine if there is a difference in the mean rank of values in each family and school experience measure for the non-truants and the truants. The null hypothesis of no difference will be rejected if the probability associated with the resulting Z value is .05 or less.

The Kruskal-Wallis One-way Analysis of Variance of Ranks was performed with the sample divided according to "level of truancy" into three groups. The objective of the analysis was to determine if there is a difference in the mean rank of values in each family and school experience measure for the non-truants, the "truancy" cases, and the "non-attendance" cases. The null hypothesis of no difference will be rejected if the probability associated with the resulting Chi-square statistic is .05 or less.

The other group of analyses requires the treatment of the family and school experience measures as interval variables. Both the t-test and one-way analysis of variance were performed.

The t-test is appropriate for the study of relationship between a dichotomous variable and an interval variable. In the present analysis, a series of t-tests were conducted to compare the mean scores of the two truancy status groups on each of the family and school measures, and to determine whether the difference in mean scores was statistically significant. A probability associated with the calculated t value of .05 or less will lead to the rejection of the null hypothesis of no difference.

One-way analysis of variance was conducted on each of the family and school experience measures with the sample divided into three groups according to "level of truancy". The objective of the analysis was to determine whether the non-truants and the "truancy" and "non-attendance" cases were significantly different respect to each of the family and school measures. A Post Hoc Multiple Comparison procedure using the Scheffe's test was also performed for comparing each possible pair of means to

determine if any two means were significantly different from one another.

An obvious advantage of performing nominal, ordinal and interval measures on the same set of variables is that the results obtained from different statistical models can be crosschecked for consistency.

The results of the analyses for “truancy status” and “level of truancy” are presented separately in the sections to follow.

#### Crosstabulations of family and school experiences by “truancy status”

Each of the family and school experience measures was crosstabulated by truancy status to determine whether the measure was significantly related to truancy. The measures included perceived relationships with parents, perceived relationships with siblings, perceived relationships with classmates, perceived relationships with teachers, self-evaluation of three academic subjects, index of perceived value of schooling, and index of problem behaviour in school. The results are presented in Table 17.

#### *Relationships with parents and siblings*

The truants were more likely than the non-truants to relate poorly with parents. As shown in Table 17, 18.7 percent of the truants but only 11.0 percent of the non-truants perceived poor or very poor relationships with parents. The truants were also more likely to have poor relationships with siblings than the non-truants; 16.2 percent of the truants, as compared to 10.6 percent of the non-truants reported poor or very poor relationships with siblings.

The results of the Chi-square test showed that relationships with parents and siblings were not significantly related to truancy. However, the results could be considered unreliable because some expected cell frequencies were less than five (Bryman & Cramer, 1988).

#### *Relationships with classmates and teachers*

The truants were less likely than the non-truants to have poor relationships with classmates, but were more likely to relate poorly with teachers. It was found that 7.8

percent of the truants, as compared to 10.6 percent of the non-truants perceived having poor or very poor relationships with classmates. On the other hand, 30.2 percent of the truants, as compared to 14.5 percent of the non-truants, reported poor or very poor relationships with teachers.

The results of the Chi-square test showed that truancy was significantly related to relationships with teachers (Chi-square = 14.842;  $df = 3$ ;  $p < .01$ ). Truancy was also found to be significantly related to relationships with classmates although the results of the Chi-square test could be considered unreliable due to the presence of cells with an expected frequency of less than 5 (Bryman & Cramer, 1988).

#### Academic self-evaluation

It was interesting to observe that academic self-evaluation was generally more positive for the truants. They tended to rate their performance higher than the non-truants in all subjects. About one-fourth (24.0%) of the truants, but 42.7 percent of the non-truants, rated their performance in English as below average. Similarly, 10.1 percent of the truants as compared to 12.5 percent of the non-truants rated their performance in Chinese as below average in comparison to other students in class. With respect to Mathematics, 20.9 percent of the truants, as compared to 35.3 percent of the non-truants, rated their performance as below average.

Self-evaluation in both English and Mathematics was found to be significantly related to truancy (English: Chi-square = 26.050;  $df = 3$ ;  $p < .01$ ; Mathematics: Chi-square = 10.716;  $df = 3$ ;  $p < .05$ ). Although the truants were less likely than the non-truants to rate themselves low in Chinese, the difference was only small and not statistically significant.

#### Index of perceived value of schooling

As reported earlier, an index was constructed for measuring perceived value of schooling. For the purpose of crosstabulation analyses, the total scores of the index were grouped into the following categories: a score of 4; a score between 5-8; a score between 9-12; a score between 13-16; and a score of 17 or higher.

The result of the crosstabulation analysis showed that more than one-fourth (27.2%)



of the truants received a total score of 8 or less on the index of perceived value of schooling, as compared to 12.6 percent of the non-truants. A total score of 8 or less was considered sufficiently low to indicate a negative orientation towards schooling. Thus, despite that the truants were generally more positive in academic self-evaluation, they were less likely to enjoy school and to believe in the relevance of schooling for learning and future development.

The Chi-square was calculated for the crosstabulation table, but the result could be a source of controversy due to the presence of cells with an expected frequency of less than five (Bryman & Cramer, 1988).

### Index of problem behaviours

The index of problem behaviours was employed for the purpose of crosstabulation analysis. As in previous analyses, the total scores of the index were grouped into the following categories: a score of 0; a score between 1-11; a score between 12-22; and a score of 23 or higher.

As shown in Table 17, the truants were more likely than the non-truants to have problem behaviours. More than two-fifths (45.0%) of the truants, as compared to 7.1 percent of the non-truants, reported problem behaviours during the last year of school. The result of the Chi-square test showed that problem behaviours and truancy were significantly related (Chi-square = 82.163; df = 3;  $p < .01$ ).

Table 17. Crosstabulations of family and school experience measures by truancy status

|                                                                                             | Non-truant |      | Truant |      | Total |      |
|---------------------------------------------------------------------------------------------|------------|------|--------|------|-------|------|
|                                                                                             | N          | %    | N      | %    | N     | %    |
| Parent-child relationship                                                                   |            |      |        |      |       |      |
| Very poor                                                                                   | 5          | 2.0  | 6      | 4.7  | 11    | 2.9  |
| Poor                                                                                        | 23         | 9.0  | 18     | 14.0 | 41    | 10.7 |
| Good                                                                                        | 138        | 54.1 | 69     | 53.5 | 207   | 53.9 |
| Very good                                                                                   | 89         | 34.9 | 36     | 27.9 | 125   | 32.6 |
| Chi-square = 5.412; df = 3; $p > .05$ (1 cell or 12.5% have expected frequency less than 5) |            |      |        |      |       |      |
| Sibling-child relationship                                                                  |            |      |        |      |       |      |
| Very poor                                                                                   | 8          | 3.4  | 2      | 1.8  | 10    | 2.9  |
| Poor                                                                                        | 17         | 7.3  | 16     | 14.4 | 33    | 9.6  |
| Good                                                                                        | 130        | 55.8 | 61     | 55.0 | 191   | 55.5 |
| Very good                                                                                   | 78         | 33.5 | 32     | 28.8 | 110   | 32.0 |
| Chi-square = 5.177; df = 3; $p > .05$ (1 cell or 12.5% have expected frequency less than 5) |            |      |        |      |       |      |
| Relationship with classmates                                                                |            |      |        |      |       |      |
| Very poor                                                                                   | 6          | 2.4  | 0      | 0.0  | 6     | 1.6  |

|                                                                                             |     |      |    |      |     |      |
|---------------------------------------------------------------------------------------------|-----|------|----|------|-----|------|
| Poor                                                                                        | 21  | 8.2  | 10 | 7.8  | 31  | 8.1  |
| Good                                                                                        | 150 | 58.8 | 95 | 73.6 | 245 | 63.8 |
| Very good                                                                                   | 78  | 30.6 | 24 | 18.6 | 102 | 26.6 |
| Chi-square = 10.640; df = 3; p < .05 (2 cells or 25.0% have expected frequency less than 5) |     |      |    |      |     |      |
| Relationship with teachers                                                                  |     |      |    |      |     |      |
| Very poor                                                                                   | 12  | 4.7  | 16 | 12.4 | 28  | 7.3  |
| Poor                                                                                        | 25  | 9.8  | 23 | 17.8 | 48  | 12.5 |
| Good                                                                                        | 174 | 68.2 | 76 | 58.9 | 250 | 65.1 |
| Very good                                                                                   | 44  | 17.3 | 14 | 10.9 | 58  | 15.1 |
| Chi-square = 14.842; df = 3; p < .01                                                        |     |      |    |      |     |      |
| Evaluation of English                                                                       |     |      |    |      |     |      |
| Below average                                                                               | 109 | 42.7 | 31 | 24.0 | 140 | 36.5 |
| Average                                                                                     | 86  | 33.7 | 66 | 51.2 | 152 | 39.6 |
| Just above average                                                                          | 51  | 20.0 | 17 | 13.2 | 68  | 17.7 |
| Much better than average                                                                    | 9   | 3.5  | 15 | 11.6 | 24  | 6.3  |
| Chi-square = 26.050; df = 3; p < .01                                                        |     |      |    |      |     |      |
| Evaluation of Chinese                                                                       |     |      |    |      |     |      |
| Below average                                                                               | 32  | 12.5 | 13 | 10.1 | 45  | 11.7 |
| Average                                                                                     | 107 | 42.0 | 61 | 47.3 | 168 | 43.8 |
| Just above average                                                                          | 96  | 37.6 | 40 | 31.0 | 136 | 35.4 |
| Much better than average                                                                    | 20  | 7.8  | 15 | 11.6 | 35  | 9.1  |
| Chi-square = 3.414; df = 3; p > .05                                                         |     |      |    |      |     |      |
| Evaluation of Mathematics                                                                   |     |      |    |      |     |      |
| Below average                                                                               | 90  | 35.3 | 27 | 20.9 | 117 | 30.5 |
| Average                                                                                     | 92  | 36.1 | 55 | 42.6 | 147 | 38.3 |
| Just above average                                                                          | 50  | 19.6 | 26 | 20.2 | 76  | 19.8 |
| Much better than average                                                                    | 23  | 9.0  | 21 | 16.3 | 44  | 11.5 |
| Chi-square = 10.716; df = 3; p < .05                                                        |     |      |    |      |     |      |
| Index of perceived value of schooling                                                       |     |      |    |      |     |      |
| A score of 4                                                                                | 3   | 1.2  | 5  | 3.9  | 8   | 2.1  |
| A score between 5-8                                                                         | 29  | 11.4 | 30 | 23.3 | 59  | 15.4 |
| A score between 9-12                                                                        | 113 | 44.3 | 61 | 47.3 | 174 | 45.3 |
| A score between 13-16                                                                       | 88  | 34.5 | 30 | 23.3 | 118 | 30.7 |
| A score of 17 or higher                                                                     | 22  | 8.6  | 3  | 2.3  | 25  | 6.5  |
| Chi-square = 19.793; df = 4; p < .01 (1 cell or 10.0% have expected frequency less than 5)  |     |      |    |      |     |      |
| Index of problem behaviours                                                                 |     |      |    |      |     |      |
| A score of 0                                                                                | 64  | 25.1 | 15 | 11.6 | 79  | 20.6 |
| A score between 1-11                                                                        | 173 | 67.8 | 56 | 43.4 | 229 | 59.6 |
| A score between 12-22                                                                       | 17  | 6.7  | 40 | 31.0 | 57  | 14.8 |
| A score of 23 or higher                                                                     | 1   | .4   | 18 | 14.0 | 19  | 4.9  |
| Chi-square = 82.163; df = 3; p < .01                                                        |     |      |    |      |     |      |

### Nonparametric test of differences in family and school experiences by "truancy status"

The family and school experience measures were analyzed again by the Mann-Whitney U test. The objective was to identify if significant differences exist between the mean rank of the truants and that of the non-truants. The results, as presented in Table 18, shows the mean ranks for the truancy status groups, the Mann-Whitney U statistic, the Wilcoxon W representing the sum of the ranks of the smaller group, and the Z value with its associated probability for the rejection of the null hypothesis that the mean rank of the truants and that of the non-truants are equal. As with other tests, a probability of .05 or less will lead to the rejection of the null

hypothesis.

#### *Relationships with parents and siblings*

Table 18 shows that the truants had a lower mean rank (178.05) in the measure of relationships with parents than the non-truants (199.81), and the difference between the two mean ranks was statistically significant ( $Z = -.2020$ ;  $p < .05$ ). Similarly, the mean rank of the truants (163.84) in the measure of relationships with siblings was also lower than that of the non-truants (176.63). However, the difference was too small to be statistically significant.

The results of the Mann-Whitney U test partly confirmed those obtained from crosstabulation. Specifically, the relationship between truancy and relationships with parents, which had been shown by the Chi-square test to be statistically not significant, became significant in the present analysis. Apparently, the Mann-Whitney U test is more sensitive to differences when the measure is converted into rank values. On the other hand, crosstabulation is less sensitive to differences because when the measure is treated as a nominal variable, it will involve the loss of information for analysis.

#### *Relationships with classmates and teachers*

The truants were also found to have a lower mean rank (181.58) in the measure of relationships with classmates than the non-truants (198.02). However, the difference between the two mean ranks were not statistically significant. The mean rank of the truants (168.45) in the measure of relationships with teachers was also lower than that of the non-truants (204.66), and the difference between the two mean ranks was found to be statistically significant ( $Z = -3.563$ ;  $p < .01$ ).

The result pertaining to relationships with teachers in the present analysis was consistent with that obtained from crosstabulation. In both analyses, truancy and relationships with teachers were found to be significantly related. The result pertaining to relationships with classmates, however, showed that truancy was not significantly related to relationships with classmates; whereas in the previous analysis, the relationship was significant although it could be taken as unreliable.

### Academic self-evaluation

The results of the Mann-Whitney U test yielded similar results as those obtained from crosstabulation analyses. The general observation is that academic self-evaluation was more positive for the truants. That is, the truants tended to give a higher evaluation of their performance in all subjects than the non-truants.

The mean ranks of the truants were higher than those of the non-truants in all subjects. The mean ranks of the truants were 214.05, 193.52 and 213.76 for English, Chinese and Mathematics respectively; whereas those of the non-truants were 181.60, 191.99 and 181.74 respectively.

Consistent with the results of crosstabulation, truancy was found to be significantly related to self-evaluation in both English and Mathematics (English:  $Z = -2.879$ ;  $p < .01$ ; Mathematics:  $Z = -2.805$ ;  $p < .01$ ). With respect to Chinese, the difference in the mean rank of the truants and that of the non-truants was not statistically significant.

### Index of perceived value of schooling

The difference between the mean ranks of the two truancy status groups in the measure of perceived value of schooling was found to be statistically significant ( $Z = -4.616$ ;  $p < .01$ ). Thus, truancy and perceived value of schooling were significantly related. The fact that the truants had a lower mean rank (155.96) than the non-truants (210.99) indicated that the truants were less likely to believe in the relevance of schooling for learning and future development. In crosstabulation analysis, the relationship was also found to be statistically significant, but the result could be considered unreliable due to the presence of cells with an expected frequency of less than five.

### Index of problem behaviour

The result of the Mann-Whitney U test was similar to that of crosstabulation. That is, the truants were more likely than the non-truants to report problem behaviour during the past school year. The result showed that the mean rank of the truants in the measure of problem behaviour (253.61) was much higher than that of the non-truants (161.59); and that the difference between the two mean ranks was statistically significant ( $Z =$

-7.7718;  $p < .01$ ).

Table 18. Mann-Whitney U tests of family and school experience measures by truancy status

|                                       | Non-truant<br>Mean Rank | Truant<br>Mean Rank | Mann-Whitney<br>U | Wilcoxon<br>W | Z      | p  |
|---------------------------------------|-------------------------|---------------------|-------------------|---------------|--------|----|
| Parent-child relationship             | 199.81                  | 178.05              | 14583.000         | 22968.000     | -2.020 | *  |
| Sibling-child relationship            | 176.63                  | 163.84              | 11970.000         | 18186.000     | -1.250 | #  |
| Relationship with classmates          | 198.02                  | 181.58              | 15039.000         | 23424.000     | -1.615 | #  |
| Relationship with teachers            | 204.66                  | 168.45              | 13345.500         | 21730.500     | -3.563 | ** |
| Evaluation of English                 | 181.60                  | 214.05              | 13667.500         | 46307.500     | -2.879 | ** |
| Evaluation of Chinese                 | 191.99                  | 193.52              | 16316.500         | 48956.500     | -.137  | #  |
| Evaluation of Mathematics             | 181.74                  | 213.76              | 13704.500         | 46344.500     | -2.805 | ** |
| Index of perceived value of schooling | 210.99                  | 155.96              | 11733.500         | 20118.500     | -4.616 | ** |
| Index of problem behaviours           | 161.59                  | 253.61              | 8564.500          | 41204.500     | -7.718 | ** |

Note: # statistically not significant; \*  $p < .05$ ; \*\*  $p < .01$ .

#### Parametric test of differences in family and school experiences by "truancy status"

The t-test with independent samples was employed for the study of the relationship between truancy and each of the family and school experience measures. The t-test is a parametric test designed for the study of relationship between a dichotomous variable and an interval variable. The objective of the t-test is to determine whether the observed difference between two group means is statistically significant. In the present analysis, the objective was to determine if the mean scores of the truants and the non-truants were statistically significant on each of the family and school experience measures. The purpose of using the t-test was to see if the results were consistent with those obtained from the Mann-Whitney U test. This check for consistency was considered an important step towards the application of parametric procedures for further analyses by multivariate techniques.

Strictly speaking, parametric tests should not apply to the family and school experience measures since they are ordinal variables. Some researchers feel that parametric procedures should be used only with interval level data (Siegel & Castellan, 1988) although it also has been suggested that parametric tests can be used with ordinal

variables (Lord, 1953; Labovitz, 1970). We cannot hope to resolve the issue of whether parametric procedures should be applied to ordinal data. As Bryman and Cramer (1988: p. 57) rightly point out, "there does not appear to be a rule of thumb which allows the analyst to specify when a variable is definitely ordinal and when interval", and parametric tests are routinely applied to ordinal variables (Bryman & Cramer, 1998) and the use of parametric tests with ordinal data is reported in journal articles as a normal practice (Huck, Cormier, & Bounds, 1974).

In conducting the t-test, the assumption of homogeneity of variances was tested although some researchers feel that this assumption can be relaxed because most parametric statistics are robust against violations of homogeneity (Bryman & Cramer, 1988). Specifically, the Levene's Test for equality of variances was conducted to see if the data support the assumption. The test gives a F value which indicates whether the null hypothesis of equal variances should be rejected. A significant F value will lead to the rejection of the null hypothesis; whereas a non-significant F value does not.

The results of the t-tests, which are presented in Table 19, showed that the assumption was supported for the following measures: relationships with parents, relationships with siblings, the three measures of academic self-evaluation, and the index of perceived value of schooling. Under the condition of equal variances, the regular t test which gives a pooled-variance estimate was reported. However, the assumption was not supported for relationships with classmates, relationships with teachers, and the index of problem behaviours due to the rejection of the null hypothesis of equal variances. Under the condition of unequal variances, the separate-variance t test that gives a separate-variance estimate was reported for these measures.

#### *Relationships with parents and siblings*

The results of the t-test on relationships with parents and siblings were consistent with those obtained from the Mann-Whitney U test. The truants had a lower mean score ( $M = 3.05$ ,  $SD = .78$ ) in the measure of relationships with parents than the non-truants ( $M = 3.22$ ,  $SD = .69$ ), and the difference between the two mean scores were statistically significant ( $t = 2.229$ ;  $df = 382$ ;  $p < .05$ ). Similarly, the mean score of the truants ( $M = 3.11$ ,  $SD = .71$ ) in the measure of relationships with siblings was also lower than that of the non-truants ( $M = 3.19$ ,  $SD = .71$ ). However, the difference was too small to be

statistically significant. Thus, the present results confirmed that truancy was significantly related to relationships with parents, but not relationships with siblings.

#### *Relationships with classmates and teachers*

Consistent with the result of the Mann-Whitney U test, the truants were also found to have a lower mean score ( $M = 3.11$ ,  $SD = .50$ ) in the measure of relationships with classmates than the non-truants ( $M = 3.18$ ,  $SD = .67$ ). The difference between the two mean scores were also not statistically significant. The mean score of the truants ( $M = 2.68$ ,  $SD = .83$ ) in the measure of relationships with teachers was also lower than that of the non-truants ( $M = 2.98$ ,  $SD = .68$ ), and the difference between the two mean ranks was also found to be statistically significant ( $t = 3.513$ ;  $df = 382$ ;  $p < .01$ ). The results thus confirmed that truancy was significantly related to relationships with teachers, suggesting that the truants were more likely than the non-truants to have poor relationships with teachers.

#### *Academic self-evaluation*

In the previous analyses based on the Mann-Whitney U test, it was shown that the truants tended to give a higher evaluation of their performance in all subjects than the non-truants. Furthermore, truancy was found to be significantly related to self-evaluation in both English and Mathematics but not Chinese.

The results of the t-tests confirmed these results. The truants were found to have a significantly higher mean score (English:  $M = 1.12$ ,  $SD = .91$ ; Mathematics:  $M = 1.32$ ,  $SD = .98$ ; Chinese:  $M = 1.44$ ,  $SD = .83$ ) than that of the non-truants (English:  $M = .84$ ,  $SD = .86$ ; Mathematics:  $M = 1.02$ ,  $SD = .96$ ; Chinese:  $M = 1.41$ ,  $SD = .81$ ). The difference between the mean scores of the truants and the non-truants was statistically significant for English ( $t = -2.955$ ;  $df = 382$ ;  $p < .01$ ) and Mathematics ( $t = -2.822$ ;  $df = 382$ ;  $p < .01$ ), but not Chinese.

#### *Index of perceived value of schooling*

The difference between the mean scores of the two truancy status groups in the measure of perceived value of schooling was found to be statistically significant ( $t = 4.746$ ;  $df = 382$ ;  $p < .01$ ) with the truants receiving a lower mean score ( $M = 10.53$ ,  $SD$

= 3.26) than the non-truants (M = 12.16, SD = 3.15).

The finding was consistent with that of the Mann-Whitney U test which indicated that truancy and perceived value of schooling were significantly related. Thus it may be concluded that the truants were less likely than the non-truants to perceive the value of schooling.

### Index of problem behaviour

The result of the t-test on the index of problem behaviour was also consistent with that of the Mann-Whitney U test. The truants were found to be more likely than the non-truants to report problem behaviour during the past school year. The result showed that the mean score of the truants (M = 11.55, SD = 9.39) was much higher than that of the non-truants (M = 4.15, SD = 4.51); and that the difference between the two mean scores was statistically significant ( $t = -8.466$ ;  $df = 382$ ;  $p < .01$ ).

Table 19. Independent t-tests for family and school experience measures by “truancy status”

|                                       | Non-truant |      | Truant |      | t      | p  |
|---------------------------------------|------------|------|--------|------|--------|----|
|                                       | Mean       | SD   | Mean   | SD   |        |    |
| Parent-child relationship             | 3.22       | .69  | 3.05   | .78  | 2.229  | *  |
| Sibling-child relationship            | 3.19       | .71  | 3.11   | .71  | 1.037  | #  |
| Relationship with classmates          | 3.18       | .67  | 3.11   | .50  | 1.110  | #  |
| Relationship with teachers            | 2.98       | .68  | 2.68   | .83  | 3.531  | ** |
| Evaluation of English                 | .84        | .86  | 1.12   | .91  | -2.955 | ** |
| Evaluation of Chinese                 | 1.41       | .81  | 1.44   | .83  | -.387  | #  |
| Evaluation of Mathematics             | 1.02       | .96  | 1.32   | .98  | -2.822 | ** |
| Index of perceived value of schooling | 12.16      | 3.15 | 10.53  | 3.26 | 4.746  | ** |
| Index of problem behaviours           | 4.15       | 4.51 | 11.55  | 9.39 | -8.466 | ** |

Note: # statistically not significant; \*  $p < .05$ ; \*\*  $p < .01$ .

The results of the analyses for “level of truancy” are presented below.

### Nonparametric test of differences in family and school experiences by “level of truancy”

The family and school experience measures were analyzed by the Kruskal-Wallis One-way Analysis of Variance of Ranks to identify if significant differences exist between the mean rank of the non-truant group and the two truant subgroups. The two truant subgroups are referred to as “non-attenders” and “truants” respectively. The



results, as presented in Table 20, shows the mean ranks for each group, and the Chi-square statistic with its associated probability for the rejection of the null hypothesis that the mean rank of the three groups are equal. As with other tests, a probability of .05 or less will lead to the rejection of the null hypothesis.

#### *Relationships with parents and siblings*

Table 20 shows that the “non-attenders” had a lower mean rank (149.86) in the measure of relationships with parents than the “truants” (185.86) and the non-truants (199.81). The difference in the mean rank of the three groups was statistically significant (Chi-square = 6.935;  $df = 2$ ;  $p < .05$ ). Similarly, the mean rank of the “non-attenders” (155.59) in the measure of relationships with siblings was also lower than that of the “truants” (165.99) and the non-truants (176.63). However, the difference was too small to be statistically significant.

#### *Relationships with classmates and teachers*

The “non-attenders” were also found to have a lower mean rank (166.34) in the measure of relationships with classmates than the “truants” (185.81) and the non-truants (198.02). However, the difference between the three mean ranks was not statistically significant. The mean rank of the “non-attenders” (113.43) in the measure of relationships with teachers was also lower than that of the “truants” (183.71) and the non-truants (204.66), and the difference between the three mean ranks was found to be statistically significant (Chi-square = 24.930;  $df = 2$ ;  $p < .01$ ).

#### *Academic self-evaluation*

The mean rank of the “non-attenders” (199.93) was higher than that of the non-truants (191.99) and the “truants” (191.74) for evaluation of Chinese. However, the difference between the mean ranks was not significant. Significant differences were found for evaluation of English (Chi-square = 8.315;  $df = 2$ ;  $p < .01$ ) and Mathematics (Chi-square = 7.930;  $df = 2$ ;  $p < .05$ ). In both cases, the “truants” had a higher mean rank than the “non-attenders” and the non-truants. The mean ranks of the “truants” were 214.88 and 215.01 for English and Mathematics respectively; the respective mean ranks of the “non-attenders” were 211.07 and 209.27; whereas those of the non-truants were 181.60 and 181.74 respectively.

### Index of perceived value of schooling

The difference between the mean ranks of the three “truancy level” groups in the measure of perceived value of schooling was found to be statistically significant (Chi-square = 35.919; df = 2;  $p < .01$ ). Thus, level of truancy and perceived value of schooling were significantly related. The fact that the “non-attenders” had a substantially lower mean rank (85.43) than the “truants” (175.51) and the non-truants (210.99) indicated that the “non-attenders” were the least likely to believe in the relevance of schooling for learning and future development.

### Index of problem behaviour

The result of the Kruskal-Wallis One-way Analysis of Variance of Ranks showed that the “non-attenders” were the most likely of all groups to have problem behaviour. The mean rank of the “non-attenders” (336.07) was much higher than that of the truants (230.75) and the non-truants (161.59). The difference between three mean ranks was statistically significant (Chi-square = 79.546; df = 2;  $p < .01$ ).

Table 20. Results of Kruskal-Wallis One-way Analysis of Variance of Ranks for family and school experience measures by level of truancy

|                                          | Non-truant<br>Mean<br>Rank | Truant<br>(13 days or<br>less)<br>Mean Rank | Truant<br>(14 days or<br>more)<br>Mean Rank | Chi-square | p  |
|------------------------------------------|----------------------------|---------------------------------------------|---------------------------------------------|------------|----|
| Parent-child relationship                | 199.81                     | 185.86                                      | 149.86                                      | 6.935      | *  |
| Sibling-child relationship               | 176.63                     | 165.99                                      | 155.59                                      | 1.815      | #  |
| Relationship with classmates             | 198.02                     | 185.81                                      | 166.34                                      | 3.524      | #  |
| Relationship with teachers               | 204.66                     | 183.71                                      | 113.43                                      | 24.930     | ** |
| Evaluation of English                    | 181.60                     | 214.88                                      | 211.07                                      | 8.315      | *  |
| Evaluation of Chinese                    | 191.99                     | 193.74                                      | 199.93                                      | .156       | #  |
| Evaluation of Mathematics                | 181.74                     | 215.01                                      | 209.27                                      | 7.930      | *  |
| Index of perceived value of<br>schooling | 210.99                     | 175.51                                      | 85.43                                       | 35.919     | ** |
| Index of problem behaviours              | 161.59                     | 230.75                                      | 336.07                                      | 79.546     | ** |

Note: # statistically not significant; \*  $p < .05$ ; \*\*  $p < .01$ .

### Parametric test of differences in family and school experiences by “level of truancy”

The family and school experience measures were also analyzed by a series of one-way analysis of variance computations to identify significant differences between three groups i.e. the “non-truant-group”, the “truant subgroup”, and the “non-attender subgroup”. The one-way analysis of variance has a clear advantage over the Kruskal-Wallis One-way Analysis of Variance of Ranks when used with the Scheffe’s test to identify the statistically significant pairs of group means for each of the family and school experience measures. Table 21 shows the mean and standard deviation of each measure for each group, the F value with its associated probability for the rejection of the null hypothesis, as well as the results of pairwise comparisons and the probability associated with the Scheffe’s test.

#### *Relationships with parents and siblings*

The result of one-way analysis of variance showed that the “non-attenders”, the “truants”, and the non-truants were significantly different with respect to relationships with parents ( $F = 4.264$ ;  $df = 2, 381$ ;  $p < .05$ ). This finding confirmed the result obtained from the Kruskal-Wallis One-way Analysis of Variance of Ranks. Inspection of the mean scores indicated that the “non-attenders” ( $M = 2.82$ ;  $SD = .86$ ) scored lower than the “truants” ( $M = 3.11$ ;  $SD = .75$ ) and the non-truants ( $M = 3.22$ ;  $SD = .69$ ). However, pairwise comparison of the mean scores showed that only the “non-attender and non-truant” comparison was statistically significant (Mean difference =  $-.3982$ ;  $p < .05$ ). Although the “truants” also scored lower than the non-truants, the mean difference ( $-.1107$ ) was not significant.

Group differences on relationships with siblings were not statistically significant. However, the mean score of the “non-attenders” ( $M = 3.04$ ;  $SD = .77$ ) was lower than that of the “truants” ( $M = 3.13$ ;  $SD = .69$ ) and the non-truants ( $M = 3.19$ ;  $SD = .71$ ). As shown by the results of the Scheffe’s tests, none of the mean differences was statistically significant.

Despite the lack of statistical significance for some of the observed differences, the findings suggest that the “non-attenders” were more likely than the “truants” and the

“truants” were more likely than the non-truants to have poor relationships with parents and siblings.

### *Relationships with classmates and teachers*

The between-group differences in relationships with classmates were not statistically significant. However, the “non-attenders” scored lower ( $M = 3.00$ ;  $SD = .61$ ) than the “truants” ( $M = 3.14$ ;  $SD = .47$ ) and the non-truants ( $M = 3.18$ ;  $SD = .67$ ). The results of pairwise comparison of the mean scores also showed that none of the pairs of group means was statistically significant.

Significant difference between groups was found for relationships with teachers ( $F = 17.653$ ;  $df = 2, 381$ ;  $p < .01$ ). The “non-attenders” had a lower mean score ( $M = 2.14$ ;  $SD = .93$ ) than the “truants” ( $M = 2.83$ ;  $SD = .74$ ) and the non-truants ( $M = 2.98$ ;  $SD = .68$ ). Pairwise comparison of the group means indicated that the group means for the “non-truants and non-attenders” (Mean difference =  $-.8375$ ) and the “truants and non-attenders” (Mean difference =  $-.6888$ ) were statistically significant at the .05 level.

Consistent with the results obtained from the Kruskal-Wallis One-way Analysis of Variance of Ranks, the “non-attenders” were found to have poorer relationships with classmates and teachers than the “truants” and the non-truants. More importantly, the significant group means between the “non-attenders” and the “truants” further substantiated the observation that poor relationships with teachers were significantly related to truancy.

### *Academic self-evaluation*

The results of one-way analysis of variance yielded similar results as those obtained from the Kruskal-Wallis One-way Analysis of Variance of Ranks. Specifically, truancy was found to be significantly related to evaluation of English and Mathematics (English:  $F = 4.419$ ;  $df = 2, 381$ ;  $p < .05$ ; Mathematics:  $F = 3.992$ ;  $df = 2, 381$ ;  $p < .05$ ). In both measures, the “truants” had a higher mean score than the “non-attenders” and the non-truants. The mean scores of the “truants” were 1.14 ( $SD = .94$ ) and 1.33 ( $SD = .98$ ) for English and Mathematics respectively; the respective mean scores of the

“non-attenders” were 1.07 (SD = .81) and 1.29 (SD = 1.01); whereas those of the non-truants were .84 (SD = .86) and 1.02 (SD = .96) respectively. The results of the Scheffe’s tests showed that the mean differences between the “truants” and the non-truants for both evaluation of English (Mean difference = .2955) and evaluation of mathematics (Mean difference = .3032) were statistically significant at the .05 level.

The relationship between truancy and evaluation of Chinese was not statistically significant. However, the “non-attenders” were found to score higher (M = 1.54; SD = .92) than the “truants” (M = 1.42; SD = .80) and the non-truants (M = 1.41; SD = .81). Pairwise comparison showed that none of the pairs of group means was statistically significant.

The results indicated that the “truants” tended to evaluate themselves higher than the “non-attenders” and the non-truants in both English and Mathematics; whereas the “non-attenders” tended to have a higher evaluation in Chinese than the “truants” and the non-truants.

#### Index of perceived value of schooling

One-way analysis of variance on perceived value of schooling also showed a similar pattern of relationships as those obtained from the Kruskal-Wallis One-way Analysis of Variance of Ranks. Specifically, truancy was found to be significantly related to perceived value of schooling ( $F = 18.613$ ;  $df = 2, 381$ ;  $p < .01$ ). Furthermore, the “non-attenders” had a substantially lower mean score (M = 8.57; SD = 2.36) than the “truants” (M = 3.27; SD = 8.57) and the non-truants (M = 12.16; SD = 3.15), indicating that the “non-attenders” were the least likely to believe in the instrumental value of schooling. Pairwise comparison showed that all of the mean differences were statistically significant at the .05 level. The mean differences for the non-truants and the “truants”, the non-truants and the “non-attenders”, and the “truants” and the “non-attenders” were -1.0915, -3.5894, and -2.4979 respectively. These findings suggest that the lower the perceived value of schooling, the more frequent or serious truanting behaviour will be.

### Index of problem behaviour

The results of one-way analysis of variance on problem behaviour were also consistent with those obtained from the Kruskal-Wallis One-way Analysis of Variance of Ranks. In both analyses, the “non-attenders” were found to be the most likely of all groups to have problem behaviour. While the results of the Kruskal-Wallis One-way Analysis of Variance of Ranks showed that the mean rank of the “non-attenders” was much higher than that of the “truants” and the non-truants, the results of one-way analysis of variance showed that the “non-attenders” had a substantially higher mean score ( $M = 19.82$ ;  $SD = 8.83$ ) than that of the “truants” ( $M = 9.26$ ;  $SD = 8.21$ ) and the non-truants ( $M = 4.15$ ;  $SD = 4.51$ ). The relationship between level of truancy and problem behaviour was also found to be statistically significant ( $F = 97.004$ ;  $df = 2, 381$ ;  $p < .01$ ). Most importantly, all of the mean differences were statistically significant at the .05 level. The largest mean difference was found in the comparison between the non-truants and the “non-attenders” (15.6685); followed by the “truants” and the “non-attenders” (10.5640); and the non-truants and the “truants” (5.1045). These findings suggest that the higher the level of truancy, the more likely or frequent problem behaviour will be.

Table 21. Means, SD and paired comparison of means of family and school experience measures by level of truancy

| Measures | Non-truant (N=255) |      | Truant 13 days or less (N=101) |      | Non-attender 14 days or more (N=28) |      | F        | Paired comparison |              | Mean Difference |
|----------|--------------------|------|--------------------------------|------|-------------------------------------|------|----------|-------------------|--------------|-----------------|
|          | Mean               | SD   | Mean                           | SD   | Mean                                | SD   |          |                   |              |                 |
| PCR      | 3.22               | .69  | 3.11                           | .75  | 2.82                                | .86  | 4.264*   | Non-truant        | Truant       | -.1107          |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | -.3982*         |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | -.2875          |
| SCR      | 3.19               | .71  | 3.13                           | .69  | 3.04                                | .77  | .656#    | Non-truant        | Truant       | -.0681          |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | -.1497          |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | -.0815          |
| RWC      | 3.18               | .67  | 3.14                           | .47  | 3.00                                | .61  | 1.057#   | Non-truant        | Truant       | -.0379          |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | -.1765          |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | -.1386          |
| RWT      | 2.98               | .68  | 2.83                           | .74  | 2.14                                | .93  | 17.653** | Non-truant        | Truant       | -.1487          |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | -.8375*         |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | -.6888*         |
| EOE      | .84                | .86  | 1.14                           | .94  | 1.07                                | .81  | 4.419*   | Non-truant        | Truant       | .2955*          |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | .2283           |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | -.0672          |
| EOC      | 1.41               | .81  | 1.42                           | .80  | 1.54                                | .92  | .312#    | Non-truant        | Truant       | .0080           |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | .1279           |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | .1199           |
| EOM      | 1.02               | .96  | 1.33                           | .98  | 1.29                                | 1.01 | 3.992*   | Non-truant        | Truant       | .3032*          |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | .2622           |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | -.0410          |
| IVS      | 12.16              | 3.15 | 11.07                          | 3.27 | 8.57                                | 2.36 | 18.613** | Non-truant        | Truant       | -1.0915*        |
|          |                    |      |                                |      |                                     |      |          | Non-truant        | Non-attender | -3.5894*        |
|          |                    |      |                                |      |                                     |      |          | Truant            | Non-attender | -2.4979*        |

|     |      |      |      |      |       |      |          |            |              |          |
|-----|------|------|------|------|-------|------|----------|------------|--------------|----------|
| IPB | 4.15 | 4.51 | 9.26 | 8.21 | 19.82 | 8.83 | 97.004** | Non-truant | Truant       | 5.1045*  |
|     |      |      |      |      |       |      |          | Non-truant | Non-attender | 15.6685* |
|     |      |      |      |      |       |      |          | Truant     | Non-attender | 10.5640* |

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

Note:

PCR - Relationships with parents  
RWC - Relationships with classmates  
EOE - Evaluation of English  
EOM - Evaluation of mathematics  
IPB - Index of problem behaviour

SCR - Relationships with siblings  
RWT - Relationships with teachers  
EOC - Evaluation of Chinese  
IVS - Index of perceived value of schooling

## Summary

The above findings showed that the truants, as compared to the non-truants, were more likely to have poor relationships with parents and teachers as well as problem behaviour. Although they tended to rate themselves higher than the non-truants in their performance in all core subjects of study, they were less likely to perceive schooling as relevant for learning and future development.

The consistency in the results obtained from different statistical procedures also indicates that truancy status was related at a higher significant level to relationships with teachers, perceived value of schooling and problem behaviour ( $p < .01$ ) than relationships with parents ( $p < .05$ ). This is a strong finding indicating that there is a higher probability for truancy to be associated with poor relationships with teachers, a low perceived value of schooling, and discipline problems in school than poor relationships with parents. More importantly, the significant differences found between the “non-attenders” and the “truants” in relationships with teachers, perceived value of schooling, and problem behaviour further suggest the importance of these factors in the explanation of the frequency or seriousness of truanting behaviour.

The consistency in the results also lends support to the application of parametric statistics on the present set of data for multivariate analyses. As argued by Labovitz (1970), the amount of error that can occur is minimal when ordinal variables are treated as interval variables, but there is considerable advantages to the use of parametric procedures which are both powerful and relatively easy to interpret. The inaccessibility of nonparametric methods for testing interactions in the analysis of variance model (Siegel & Castellan, 1988) also provides an added argument for the use of the parametric procedures of multivariate analyses on the present set of data which are essentially ordinal.

## LOCUS OF CONTROL AND ATTRIBUTIONAL STYLE

The following describes the results of analyses performed to assess the reliability and validity of the Nowicki-Strickland Locus of Control Scale and adapted ASQ as a prior step in further analyses.

### Reliability of the Nowicki-Strickland Locus of Control Scale

The split-half method was employed to assess the reliability of the scale. Table 22 shows the mean and standard deviation of each item as well as the split-half coefficient computed for all subjects. The split-half coefficient, corrected by the Spearman-Brown formula, was 0.7157. This coefficient is lower than those reported by Nowicki and Strickland (1973) for Grades 9, 10, and 11 (0.74) and for Grade 12 (0.81) but it is considered satisfactory when applied to a different culture using a slightly modified and translated version. The result also suggests that the yes/no response format was culturally adaptive and seemed to work equally well with a truant population.

Table 22. Locus of control

| Split-half coefficient<br>= .7157                                                                                 | Mean  | Standard<br>Deviation |
|-------------------------------------------------------------------------------------------------------------------|-------|-----------------------|
| 1. You believe that most problems will solve themselves if you just don't fool with them.                         | .1823 | .3866                 |
| 2. You believe that you can stop yourself from catching a cold.                                                   | .7031 | .4575                 |
| 3. Some kids are just born lucky.                                                                                 | .5964 | .4913                 |
| 4. Most of the time you think that getting good grades means a great deal to you.                                 | .4557 | .4987                 |
| 5. You are often blamed for things that just aren't your fault.                                                   | .4427 | .4974                 |
| 6. You believe that if somebody studies hard enough he or she can pass any subject.                               | .3307 | .4711                 |
| 7. You feel that most of the time it doesn't pay to try hard because things never turn out right any way.         | .3151 | .4652                 |
| 8. You feel that if things start out well in the morning that it's going to be a good day no matter what happens. | .4688 | .4997                 |
| 9. You feel that most of the time parents listen to what their children have to say.                              | .5807 | .4941                 |
| 10. You believe that wishing can make good things happen.                                                         | .7708 | .4208                 |
| 11. When you get punished it usually seem it's for no good reason at all.                                         | .3602 | .4812                 |
| 12. Most of the time you find it hard to change a friend's mind.                                                  | .3984 | .4902                 |
| 13. You think that cheering more than luck helps a team to win.                                                   | .5703 | .4957                 |
| 14. You feel that it's nearly impossible to change your parent's mind about anything.                             | .4271 | .4953                 |
| 15. You believe that your parents should allow you to make most of your own decisions.                            | .3177 | .4662                 |
| 16. You feel that when you do something wrong there's very little you can do to make it right.                    | .2656 | .4422                 |
| 17. You believe that most kids are just born lucky.                                                               | .3333 | .4720                 |
| 18. Most of the other kids your age are stronger than you are.                                                    | .2656 | .4422                 |
| 19. You feel that one of the best ways to handle most problems is just not to think about them.                   | .3229 | .4682                 |
| 20. You feel that you have a lot of choice in deciding who your friends are.                                      | .2109 | .4085                 |
| 21. If you find a lucky star you believe that it might bring you good luck.                                       | .3568 | .4797                 |



|                                                                                                                                   |       |       |
|-----------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| 22. You often feel that whether you do your homework has much to do with what kinds of grades you get.                            | .4349 | .4964 |
| 23. You feel that when a kid your age decides to hit you, there's little you can do to stop him or her.                           | .3151 | .4652 |
| 24. You have had a good luck charm.                                                                                               | .3151 | .4652 |
| 25. You believe that whether or not people like you depends on how you act.                                                       | .3620 | .4812 |
| 26. Your parents will usually help you if you ask them to.                                                                        | .3203 | .4672 |
| 27. You have felt that when people were mean to you it was usually for no reason at all.                                          | .3411 | .4747 |
| 28. Most of the time you feel that you can change what might happen tomorrow by what you do today.                                | .4193 | .4941 |
| 29. You believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them. | .5964 | .4913 |
| 30. You think that kids can get their own way if they just keep trying.                                                           | .3281 | .4701 |
| 31. Most of the time you find it useless to try to get your own way at home.                                                      | .5625 | .4967 |
| 32. You feel that when good things happen they happen because of hard work.                                                       | .1667 | .3732 |
| 33. You feel that when somebody your age wants to be your enemy there's little you can do to change matters.                      | .4193 | .4941 |
| 34. You feel that it's easy to get friends to do what you want them to.                                                           | .3672 | .4827 |
| 35. You usually feel that you have little to say about what you get to eat at home.                                               | .2682 | .4436 |
| 36. You feel that when someone doesn't like you there's little you can do about it.                                               | .4323 | .4960 |
| 37. You usually feel that it's almost useless to try in school because most other children are just plain smarter than you are.   | .2891 | .4539 |
| 38. You are the kind of person who believes that planning ahead makes things turn out better.                                     | .2578 | .4380 |
| 39. Most of the time you feel that you have little to say about what your family decides to do.                                   | .4531 | .4984 |
| 40. You think that it's better to be smart than to be lucky.                                                                      | .4297 | .4957 |

### Reliability of the Adapted ASQ

To assess the reliability of the adapted ASQ, tests of internal consistency using the Cronbach Alpha were performed on the dimension measures (i.e., internality, stability, and globality) for each type of outcomes (i.e., good/bad), each type of tasks (i.e., achievement/affiliation), and each outcome-task combination (i.e., good/achievement, good/affiliation, bad/achievement, bad/affiliation). As shown in Appendix 3, a total of 6 dimension measures were developed for good outcomes and bad outcomes, a total of 6 dimension measures were developed for achievement tasks and affiliation tasks and a total of 12 dimension measures were developed for the 4 outcome-task combinations.

### Reliabilities of the dimension measures for good outcomes

The results of reliability analysis of dimension measures for good outcomes are presented in Table 23. As shown, the six-item subscales measuring separate attribution dimensions achieved reliabilities from .6589 to .6904, which are substantially higher than those reported for the original ASQ (Peterson et al., 1982; Tenn and Herzberger, 1986). The reliability characteristics of the original subscales were: good event

internality = .39; good event stability = .54; good event globality = .58.

Table 23. Dimension measures for good outcomes

| Internality (Cronbach Alpha = .6589)                                                    | Mean    | Standard deviation |
|-----------------------------------------------------------------------------------------|---------|--------------------|
| You obtain a good grade in school examination.                                          | 2.2917  | .8036              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.2734  | .7888              |
| You are able to complete your homework without any difficulty.                          | 2.1927  | .7977              |
| Your teachers treat you more fairly in school.                                          | 2.2240  | .7928              |
| Your classmates are treating you more nicely.                                           | 2.2396  | .8079              |
| Your teachers and classmates think that you're important.                               | 2.2734  | .7410              |
| Total                                                                                   | 13.4948 | 2.8778             |
|                                                                                         |         |                    |
| Stability (Cronbach Alpha = .6904)                                                      |         |                    |
| You obtain a good grade in school examination.                                          | 2.2656  | .8029              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.2578  | .7707              |
| You are able to complete your homework without any difficulty.                          | 2.1302  | .7639              |
| Your teachers treat you more fairly in school.                                          | 2.2448  | .7732              |
| Your classmates are treating you more nicely.                                           | 2.2422  | .7824              |
| Your teachers and classmates think that you're important.                               | 2.2057  | .7523              |
| Total                                                                                   | 13.3464 | 2.9107             |
|                                                                                         |         |                    |
| Globality (Cronbach Alpha = .6712)                                                      |         |                    |
| You obtain a good grade in school examination.                                          | 2.2839  | .9533              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.1589  | .7704              |
| You are able to complete your homework without any difficulty.                          | 2.0990  | .7854              |
| Your teachers treat you more fairly in school.                                          | 2.1328  | .8051              |
| Your classmates are treating you more nicely.                                           | 2.1536  | .7882              |
| Your teachers and classmates think that you're important.                               | 2.1693  | .7613              |
| Total                                                                                   | 12.9974 | 3.0009             |

#### Reliabilities of the dimension measures for bad outcomes

Table 24 presents the results of reliability analysis of dimension measures for bad outcomes. The respective reliabilities for internality, stability and globality were .6018, .6996 and .6739, which are also higher than those reported for the original ASQ (Peterson, Semmel, von Baeyer, Abramson, Metalsky & Seligman, 1982; Tenn & Herzberger, 1986). The reliabilities of the original subscales were: bad event internality = .44; bad event stability = .63; bad event globality = .64.

Table 24. Dimension measures for bad outcomes

| Internality (Cronbach Alpha = .6018)                                         | Mean    | Standard deviation |
|------------------------------------------------------------------------------|---------|--------------------|
| You take a test, and it goes badly.                                          | 2.1563  | .8344              |
| You can't get all the studies done for an examination.                       | 2.1432  | .8414              |
| You answer questions in class and your classmates laugh at your answers.     | 1.8802  | .7891              |
| You get physically hurt by other kids in school.                             | 1.7813  | .7743              |
| You're punished by your teacher for doing something wrong.                   | 2.1172  | .7944              |
| You want to play with a kid in school and he does not want to play with you. | 2.0911  | .8108              |
| Total                                                                        | 12.1693 | 2.8025             |
| Stability (Cronbach Alpha = .6996)                                           |         |                    |
| You take a test, and it goes badly.                                          | 2.0208  | .8012              |
| You can't get all the studies done for an examination.                       | 2.0104  | .8333              |
| You answer questions in class and your classmates laugh at your answers.     | 1.9635  | .7973              |
| You get physically hurt by other kids in school.                             | 1.9974  | .8128              |
| You're punished by your teacher for doing something wrong.                   | 2.0990  | .8083              |
| You want to play with a kid in school and he does not want to play with you. | 1.9531  | .7935              |
| Total                                                                        | 12.0443 | 3.0643             |
| Globality (Cronbach Alpha = .6739)                                           |         |                    |
| You take a test, and it goes badly.                                          | 2.0495  | .8303              |
| You can't get all the studies done for an examination.                       | 2.0651  | .8198              |
| You answer questions in class and your classmates laugh at your answers.     | 1.9219  | .7884              |
| You get physically hurt by other kids in school.                             | 1.9870  | .8127              |
| You're punished by your teacher for doing something wrong.                   | 2.0026  | .8031              |
| You want to play with a kid in school and he does not want to play with you. | 1.9661  | .7859              |
| Total                                                                        | 11.9922 | 2.9825             |

Reliabilities of the dimension measures for achievement tasks

The dimension reliabilities for achievement tasks are presented in Table 25. In assessing the dimension reliabilities and computing the dimension measures, reverse scoring was applied to the dimension scores of bad outcomes so that the scores of both good outcomes and bad outcomes were in the same direction. As shown, the Cronbach Alpha Coefficients ranged from .4366 to .5743 which were somewhat lower than those reported for good and bad outcomes.

Table 25. Dimension measures for achievement tasks

| Internality (Cronbach Alpha = .5743)                                                    | Mean    | Standard deviation |
|-----------------------------------------------------------------------------------------|---------|--------------------|
| You obtain a good grade in school examination.                                          | 2.2917  | .8036              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.2734  | .7888              |
| You are able to complete your homework without any difficulty.                          | 2.1927  | .7977              |
| You take a test, and it goes badly.                                                     | 1.8438  | .8344              |
| You can't get all the studies done for an examination.                                  | 1.8568  | .8414              |
| You answer questions in class and your classmates laugh at your answers.                | 2.1198  | .7891              |
| Total                                                                                   | 12.5781 | 2.7458             |
| Stability (Cronbach Alpha = .4912)                                                      |         |                    |
| You obtain a good grade in school examination.                                          | 2.2656  | .8029              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.2578  | .7707              |
| You are able to complete your homework without any difficulty.                          | 2.1302  | .7639              |
| You take a test, and it goes badly.                                                     | 1.9792  | .8012              |
| You can't get all the studies done for an examination.                                  | 1.9896  | .8333              |
| You answer questions in class and your classmates laugh at your answers.                | 2.0365  | .7973              |
| Total                                                                                   | 12.6589 | 2.5345             |
| Globality (Cronbach Alpha = .4366)                                                      |         |                    |
| You obtain a good grade in school examination.                                          | 2.2839  | .9533              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.1589  | .7704              |
| You are able to complete your homework without any difficulty.                          | 2.0990  | .7854              |
| You take a test, and it goes badly.                                                     | 1.9505  | .8303              |
| You can't get all the studies done for an examination.                                  | 1.9349  | .8198              |
| You answer questions in class and your classmates laugh at your answers.                | 2.0781  | .7844              |
| Total                                                                                   | 12.5052 | 2.5374             |

Reliabilities of the dimension measures for affiliation tasks

The dimension reliabilities for affiliation tasks are presented in Table 26. Similar to achievement tasks, reverse scoring was applied to the dimension scores of bad outcomes so that the scores of both good outcomes and bad outcomes were in the same direction. As shown, the Cronbach Alpha Coefficients ranged from .4893 to .5743 which were more or less the same as those reported for achievement tasks.

Table 26. Dimension measures for affiliation tasks

| Internality (Cronbach Alpha = .4893)                                         | Mean    | Standard deviation |
|------------------------------------------------------------------------------|---------|--------------------|
| Your teachers treat you more fairly in school.                               | 2.2240  | .7928              |
| Your classmates are treating you more nicely.                                | 2.2396  | .8079              |
| Your teachers and classmates think that you're important.                    | 2.2734  | .7410              |
| You get physically hurt by other kids in school.                             | 2.2188  | .7743              |
| You're punished by your teacher for doing something wrong.                   | 1.8828  | .7944              |
| You want to play with a kid in school and he does not want to play with you. | 1.9089  | .8108              |
| Total                                                                        | 12.7474 | 2.5056             |
|                                                                              |         |                    |
| Stability (Cronbach Alpha = .5743)                                           |         |                    |
| Your teachers treat you more fairly in school.                               | 2.2448  | .7732              |
| Your classmates are treating you more nicely.                                | 2.2422  | .7824              |
| Your teachers and classmates think that you're important.                    | 2.2057  | .7523              |
| You get physically hurt by other kids in school.                             | 2.0026  | .8128              |
| You're punished by your teacher for doing something wrong.                   | 1.9010  | .8083              |
| You want to play with a kid in school and he does not want to play with you. | 2.0469  | .7935              |
| Total                                                                        | 12.6432 | 2.6709             |
|                                                                              |         |                    |
| Globality (Cronbach Alpha = .5110)                                           |         |                    |
| Your teachers treat you more fairly in school.                               | 2.1328  | .8051              |
| Your classmates are treating you more nicely.                                | 2.1536  | .7882              |
| Your teachers and classmates think that you're important.                    | 2.1693  | .7613              |
| You get physically hurt by other kids in school.                             | 2.0130  | .8127              |
| You're punished by your teacher for doing something wrong.                   | 1.9974  | .8031              |
| You want to play with a kid in school and he does not want to play with you. | 2.0339  | .7859              |
| Total                                                                        | 12.5000 | 2.5630             |

Reliabilities of dimension measures for achievement and affiliation tasks of good outcomes

Further analyses were performed to assess the dimension reliabilities for achievement tasks and affiliation tasks of good outcomes and bad outcomes separately. Correlations were also obtained for the dimension measures for achievement tasks with the respective dimension measures for affiliation tasks separately for good outcomes and bad outcomes.

As shown in Table 27 and Table 28, the dimensions for achievement tasks of good outcomes achieved reliabilities ranging from .4333 to .5685; whereas those for affiliation tasks of good outcomes achieved higher reliabilities ranging from .4716 to .5725.

Table 27. Dimension measures for achievement tasks of good outcomes

| Internality (Cronbach Alpha = .5685)                                                    | Mean   | Standard deviation |
|-----------------------------------------------------------------------------------------|--------|--------------------|
| You obtain a good grade in school examination.                                          | 2.2917 | .8036              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.2734 | .7888              |
| You are able to complete your homework without any difficulty.                          | 2.1927 | .7977              |
| Total                                                                                   | 6.7578 | 1.7511             |
|                                                                                         |        |                    |
| Stability (Cronbach Alpha = .4787)                                                      |        |                    |
| You obtain a good grade in school examination.                                          | 2.2656 | .8029              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.2578 | .7707              |
| You are able to complete your homework without any difficulty.                          | 2.1302 | .7639              |
| Total                                                                                   | 6.6536 | 1.6359             |
|                                                                                         |        |                    |
| Globality (Cronbach Alpha = .4333)                                                      |        |                    |
| You obtain a good grade in school examination.                                          | 2.2839 | .9533              |
| You try to figure out the answer to a difficult problem in mathematics and you make it. | 2.1589 | .7704              |
| You are able to complete your homework without any difficulty.                          | 2.0990 | .7854              |
| Total                                                                                   | 6.5417 | 1.7263             |

Table 28. Dimension measures for affiliation tasks of good outcomes

| Internality (Cronbach Alpha = .4716)                      | Mean   | Standard deviation |
|-----------------------------------------------------------|--------|--------------------|
| Your teachers treat you more fairly in school.            | 2.2240 | .7928              |
| Your classmates are treating you more nicely.             | 2.2396 | .8079              |
| Your teachers and classmates think that you're important. | 2.2734 | .7410              |
| Total                                                     | 6.7370 | 1.6339             |
|                                                           |        |                    |
| Stability (Cronbach Alpha = .5390)                        |        |                    |
| Your teachers treat you more fairly in school.            | 2.2488 | .7732              |
| Your classmates are treating you more nicely.             | 2.2422 | .7824              |
| Your teachers and classmates think that you're important. | 2.2057 | .7523              |
| Total                                                     | 6.6927 | 1.6650             |
|                                                           |        |                    |
| Globality (Cronbach Alpha = .5725)                        |        |                    |
| Your teachers treat you more fairly in school.            | 2.1328 | .8051              |
| Your classmates are treating you more nicely.             | 2.1536 | .7882              |
| Your teachers and classmates think that you're important. | 2.1693 | .7613              |
| Total                                                     | 6.4557 | 1.7292             |

Reliabilities of dimension measures for achievement and affiliation tasks of bad outcomes

The dimension reliabilities of both types of tasks for bad outcomes (Table 29 and Table 30) were generally lower than those for good outcomes. The alpha coefficients for achievement tasks ranged from .3854 to .4292; whereas those for affiliation tasks ranged from .4043 to .5967.

Table 29. Dimension measures for achievement tasks of bad outcomes

|                                                                          | Mean   | Standard deviation |
|--------------------------------------------------------------------------|--------|--------------------|
| Internality (Cronbach Alpha = .3854)                                     |        |                    |
| You take a test, and it goes badly.                                      | 2.1563 | .8344              |
| You can't get all the studies done for an examination                    | 2.1432 | .8414              |
| You answer questions in class and your classmates laugh at your answers. | 1.8802 | .7891              |
| Total                                                                    | 6.1797 | 1.6515             |
| Stability (Cronbach Alpha = .4292)                                       |        |                    |
| You take a test, and it goes badly.                                      | 2.0208 | .8012              |
| You can't get all the studies done for an examination.                   | 2.0104 | .8333              |
| You answer questions in class and your classmates laugh at your answers. | 1.9635 | .7973              |
| Total                                                                    | 5.9948 | 1.6620             |
| Globality (Cronbach Alpha = .3904)                                       |        |                    |
| You take a test, and it goes badly.                                      | 2.0495 | .8303              |
| You can't get all the studies done for an examination.                   | 2.0651 | .8198              |
| You answer questions in class and your classmates laugh at your answers. | 1.9219 | .7844              |
| Total                                                                    | 6.0365 | 1.6347             |

Table 30. Dimension measures for affiliation tasks of bad outcomes

|                                                                              | Mean   | Standard deviation |
|------------------------------------------------------------------------------|--------|--------------------|
| Internality (Cronbach Alpha = .4043)                                         |        |                    |
| You get physically hurt by other kids in school.                             | 1.7813 | .7743              |
| You're punished by your teacher for doing something wrong.                   | 2.1172 | .7944              |
| You want to play with a kid in school and he does not want to play with you. | 2.0911 | .8108              |
| Total                                                                        | 5.9896 | 1.6077             |
| Stability (Cronbach Alpha = .5967)                                           |        |                    |
| You get physically hurt by other kids in school.                             | 1.9974 | .8128              |
| You're punished by your teacher for doing something wrong.                   | 2.0990 | .8083              |
| You want to play with a kid in school and he does not want to play with you. | 1.9531 | .7935              |
| Total                                                                        | 6.0495 | 1.7965             |
| Globality (Cronbach Alpha = .4848)                                           |        |                    |
| You get physically hurt by other kids in school.                             | 1.9870 | .8127              |
| You're punished by your teacher for doing something wrong.                   | 2.0026 | .8031              |
| You want to play with a kid in school and he does not want to play with you. | 1.9661 | .7859              |
| Total                                                                        | 5.9557 | 1.6856             |

### Validity of the Adapted ASQ

To assess the validity of the adapted ASQ, a series of correlational analyses were performed (1) to determine the extent to which the observed patterns of the intercorrelations of the dimension measures conformed to the predicted patterns; (2) to

examine the discriminability of task types; (3) to check the consistency across outcome groups; and (4) to compare the adapted ASQ with the locus of control measure.

### Intercorrelations of the dimension measures

Intercorrelations of the dimension measures were computed for both types of outcomes (i.e., good and bad), both types of tasks (i.e., achievement and affiliation), and both types of outcomes for each type of task.

#### 1. Intercorrelations of the dimension measures for good and bad outcomes

Table 31 also shows the intercorrelations among the attribution dimensions for both good and bad outcomes. All the intercorrelations within each type of outcomes were positively correlated; whereas all the intercorrelations between type of outcomes were negatively correlated. The intercorrelations ranged from  $-.39$  to  $.663$  and were statistically significant at the  $0.01$  level.

Table 31. Dimension intercorrelations for good outcomes and bad outcomes

| Dimension      | 1       | 2       | 3       | 4      | 5      |
|----------------|---------|---------|---------|--------|--------|
| Good events    |         |         |         |        |        |
| 1. Internality |         |         |         |        |        |
| 2. Stability   | .663**  |         |         |        |        |
| 3. Globality   | .582**  | .569**  |         |        |        |
| Bad events     |         |         |         |        |        |
| 4. Internality | -.370** | -.390** | -.385** |        |        |
| 5. Stability   | -.387** | -.226** | -.298** | .562** |        |
| 6. Globality   | -.377** | -.311** | -.190** | .462** | .496** |

\*\* $p < 0.01$

#### 2. Intercorrelations of the dimension measures for achievement and affiliation tasks

Intercorrelations were computed for all the dimensions of both types of tasks. As shown in Table 32, all the intercorrelations were statistically significant ( $p < .01$ ) and of sufficient magnitude (between  $.523$  and  $.657$ ) to indicate that all the dimension measures of the two types of tasks were substantially related. These findings show that the attributional patterns for achievement tasks and affiliation tasks were quite similar.



Table 32. Dimension intercorrelations for achievement and affiliation tasks

| Dimension      | 1      | 2      | 3      | 4      | 5      |
|----------------|--------|--------|--------|--------|--------|
| Achievement    |        |        |        |        |        |
| 1. Internality |        |        |        |        |        |
| 2. Stability   | .653** |        |        |        |        |
| 3. Globality   | .640** | .603** |        |        |        |
| Affiliation    |        |        |        |        |        |
| 4. Internality | .602** | .621** | .523** |        |        |
| 5. Stability   | .585** | .616** | .529** | .626** |        |
| 6. Globality   | .627** | .591** | .641** | .641** | .657** |

\*\*p<0.01

3. Intercorrelations of the dimension measures for achievement and affiliation tasks of good and bad outcomes

Table 33 presents evidence indicating that all the dimension measures of achievement/affiliation tasks of good outcomes were negatively correlated with the respective measures of achievement/affiliation tasks of bad outcomes. The correlations, which were significant at the 0.05 and 0.01 level, ranged from -.127 to -.338.

Table 33. Dimension intercorrelations for achievement and affiliation tasks of good and bad outcomes

| Achievement Tasks of Bad Outcome | Achievement Tasks of Good Outcome |           |           | Affiliation Tasks of Bad Outcome | Affiliation Tasks of Good Outcome |           |           |
|----------------------------------|-----------------------------------|-----------|-----------|----------------------------------|-----------------------------------|-----------|-----------|
|                                  | Internality                       | Stability | Globality |                                  | Internality                       | Stability | Globality |
| Internality                      | -.302**                           | -.309**   | -.293**   | Internality                      | -.195**                           | -.278**   | -.256**   |
| Stability                        | -.338**                           | -.181**   | -.230**   | Stability                        | -.252**                           | -.190**   | -.299**   |
| Globality                        | -.328**                           | -.242**   | -.138**   | Globality                        | -.282**                           | -.271**   | -.127*    |

\* p<.05; \*\*p<.01

Furthermore, the composite score for achievement tasks of good outcomes were negatively correlated with the composite score for achievement tasks of bad outcomes ( $r = -.414, p < .01$ ); the composite score for affiliation tasks of good outcomes were also negatively correlated with the composite score for affiliation tasks of bad outcomes ( $r = -.366, p < .01$ ).

### Discriminability of task types

Evidence of discriminability of task types was revealed by correlating scores of internality, stability, and globality for achievement tasks with the respective scores for affiliation tasks separately for good and bad outcomes.

#### 1. Intercorrelations of dimension measures for achievement and affiliation tasks of good outcomes

Dimension scores for achievement tasks of good outcomes were correlated with the respective scores for affiliation tasks of good outcomes in order to determine whether the attributional patterns for achievement tasks and affiliation tasks were similar for good outcomes. The resulting correlation coefficients ranged from .325 to .556 (Table 34).

Table 34. Dimension intercorrelations for achievement and affiliation tasks of good outcomes

| Dimension          | 1      | 2      | 3      | 4      | 5      |
|--------------------|--------|--------|--------|--------|--------|
| Achievement events |        |        |        |        |        |
| 1. Internality     |        |        |        |        |        |
| 2. Stability       | .556** |        |        |        |        |
| 3. Globality       | .459** | .439** |        |        |        |
| Affiliation events |        |        |        |        |        |
| 4. Internality     | .445** | .451** | .325** |        |        |
| 5. Stability       | .488** | .555** | .385** | .491** |        |
| 6. Globality       | .454** | .398** | .508** | .476** | .519** |

\*\*p<0.01

#### 2. Intercorrelations of the dimension measures for achievement and affiliation tasks of bad outcomes

Dimension scores for achievement tasks of good outcomes were also correlated with the respective scores for affiliation tasks of bad outcomes in order to determine whether the attributional patterns for achievement tasks and affiliation tasks were similar for bad outcomes. The results (see Table 35) shows that the scores of internality, stability, and globality for achievement tasks were correlated with the respective scores for affiliation tasks with significant correlation coefficients ranging from .355 to .577. These findings

substantiated those of good outcomes showing that the attributional patterns for both types of tasks are similar.

Table 35. Dimension intercorrelations for achievement and affiliation tasks of bad outcomes

| Dimension          | 1      | 2      | 3      | 4      | 5      |
|--------------------|--------|--------|--------|--------|--------|
| Achievement events |        |        |        |        |        |
| 1. Internality     |        |        |        |        |        |
| 2. Stability       | .413** |        |        |        |        |
| 3. Globality       | .418** | .424** |        |        |        |
| Affiliation events |        |        |        |        |        |
| 4. Internality     | .479** | .475** | .380** |        |        |
| 5. Stability       | .355** | .569** | .407** | .475** |        |
| 6. Globality       | .401** | .457** | .577** | .474** | .435** |

\*\*p<0.01

The composite scores for achievement tasks of good outcomes and affiliation tasks of both good and bad outcomes were also significantly and substantially correlated. However, the correlation for good outcomes ( $r = .675$ ,  $p = .000$ ) was somewhat lower than that of bad outcomes ( $r = .727$ ,  $p = .000$ ).

The above results indicate that the research subjects tended to view affiliation in much the same way as achievement. Due to failure to distinguish between the two types of tasks, their attributions about affiliation overlapped greatly with their attributions about achievement. The lack of evidence of discriminability of task types in the present study led to a similar conclusion made by Peterson and Seligman (1984) - that the three-item subscales measuring internality, stability, and globality for achievement tasks and affiliation tasks are not useful measures in prediction. However, as argued by Peterson et al. (1982), the failure of discrimination by the research subjects may not be a fault of the scale, and prediction from the adapted ASQ is therefore expected to be improved by using the composite scores rather than the scores of the separate subscales.

The significant intercorrelations of the dimension measures for both good outcomes and bad outcomes also provide a rationale for combining the individual dimensions into overall composites for good outcomes and bad outcomes, and for using the composite scores as a measure of an internal, stable, and global pattern of attribution. Seligman

argued for a priori validity of composite scores by noting that reactions to stress and failure involve situationally and temporally global judgments (Tenn & Herzberger, 1986).

#### Consistency across outcome groups

Consistency across outcome groups was also checked by correlating the composite scores for good outcomes and bad outcomes. There is consistency across outcome groups if an opposite attribution pattern exists for good outcomes and bad outcomes.

Prior to the correlational analysis, a test of internal consistency using the Cronbach Alpha was performed on the two composite measures formed by combining the individual dimensions for good and bad outcomes. Respectable alpha coefficients of .8484 and .8295 were obtained. These reliabilities were about ten percent higher than that for the original instrument which achieved coefficients of .74 and .72 respectively (Peterson & Seligman, 1984).

The result of correlating the composite score for good outcomes with that for bad outcomes yielded a correlation coefficient of  $-.454$  ( $p < .01$ ) indicating that the two composite measures were significantly and substantially related in the expected direction.

#### Composite measures and locus of control

To further demonstrate the validity of the adapted ASQ, the composite scores were correlated with the Nowicki-Strickland locus of control measure. The correlations were in the expected direction. Externality was positively correlated with the composite score for bad outcomes ( $r = .126$ ,  $p < .05$ ) but its negative correlation with the composite score for good outcomes was negligibly small and not significant ( $r = -.054$ ,  $p > .05$ ). These findings suggest that research subjects with an external orientation of locus of control were more likely to attribute their bad experiences to internal, stable, and global factors. However, those with an internal orientation of locus of control were unlikely to attribute their positive experiences to internal, stable and global factors.

## Summary

As a prior step in the analyses, attempts had been made to assess the reliability and validity of the Nowicki-Strickland Locus of Control Scale (Nowicki & Strickland, 1973) and the adapted ASQ for the present sample of children.

The split-half reliability method was employed for the locus of control scale, and the split-half coefficient of 0.7157 indicates that the scale was of a satisfactory level of reliability. To assess the reliability of the adapted ASQ, tests of internal consistency using the Cronbach Alpha were performed on the dimension measures (i.e., internality, stability, and globality) for each type of outcomes (i.e., good/bad), each type of tasks (i.e., achievement/affiliation), and each outcome-task combination (i.e., good/achievement, good/affiliation, bad/achievement, bad/affiliation). To assess the validity of the adapted ASQ, correlational analyses were performed (1) to determine the extent to which the observed patterns of the intercorrelations of the dimension measures conformed to the predicted patterns; (2) to examine the discriminability of task types; and (3) to check the consistency across outcome groups. The results of the analyses, as presented previously, led to the decision to drop the 6 dimension measures for achievement tasks and affiliation tasks and the 12 dimension measures for the 4 outcome-task combinations. A total of 8 attribution measures were retained for subsequent analyses, which included 6 dimension measures as well as 2 composite measures for good outcomes and bad outcomes. The reliability characteristics of these measures were: internality for good outcomes = .6589; stability for good outcomes = .6904; globality for good outcomes = .6712; internality for bad outcomes = .6018; stability for bad outcomes = .6996; globality for bad outcomes = .6739; composite measure for good outcomes = .8484; and composite measure for bad outcomes = .8295. To further demonstrate the validity of the adapted ASQ and the Nowicki-Strickland locus of control scale, the composite scores of the adapted ASQ were correlated with the scores on locus of control. The correlations were in the expected direction, showing that externality was positively correlated with the composite score for bad outcomes, although its negative correlation with the composite score for good outcomes was negligibly small and not significant.

## STATUS DIFFERENCES IN FAMILY AND SCHOOL EXPERIENCES, LOCUS OF CONTROL, AND ATTRIBUTIONS

### Statistical Procedures

The overall concern of this thesis was to understand in detail of the patterns of locus of control and causal attributions in the sampled adolescents in Hong Kong. With this purpose in mind, analyses were conducted to achieve the following aims:

1. to compare the family and school experiences of the truants with those of the non-truants;
2. to compare the orientation of locus of control of the truants and those of the non-truants, as measured by the Nowicki-Strickland Locus of Control Scale (Nowicki & Strickland, 1973);
3. to describe the relations among locus of control and children's family and school experiences and to examine how the relations vary within each status group;
4. to compare the causal attributions of the truants and those of the non-truants, as measured by the adapted ASQ;
5. to describe the relations among attributions and children's family and school experiences and to examine how the relations vary within each status group.

With evidence showing the reliability and validity of the Nowicki-Strickland Locus of Control Scale (Nowicki & Strickland, 1973) and the adapted ASQ for the present sample of children, a series of one-way analysis of variance computations were performed on locus of control and each of the attribution measures to identify significant between-group differences by "level of truancy". A series of Scheffe's tests were also conducted on the possible pairs of group means to locate the sources of significant differences. The results (see Table 36) showed that the "non-attenders" and the "truants" were not significantly different on either locus of control or attribution. It was these findings that led to the decision to combine the two truant subgroups in detailed analyses.

Table 36 shows the mean and standard deviation of each attribution measure for each group, the F value with its associated probability for the rejection of the null hypothesis, as well as the results of pairwise comparisons and the probability associated with the Scheffe's test.

The group means indicated that the “non-attenders” scored higher than the “truants” and the non-truants on externality of locus of control and each of the attribution measures for bad events, but scored lower on each of the attribution measures for good events. All the between-group differences on the attribution measures were statistically significant at the 0.01 level. Locus of control was the only measure for which the group differences were not statistically significant.

The results of pairwise comparison for the locus of control measure further revealed that both the “non-attenders” and the “truants” were more external in orientation than the non-truants. Although the “non-attenders” scored higher on externality of control than the “truants”, the mean difference was not statistically significant.

The results of pairwise comparison for the attribution measures identified three patterns of significant differences. The first pattern consisted of the four measures of attribution for good events for which significant differences were found between the “truants” and the non-truants, and the “non-attenders” and the non-truants. As shown in Table 36, all the mean differences were significant at the .05 level. The direction of the mean differences indicated that both the “truants” and the “non-attenders” were more likely than the non-truants to attribute good events to external, unstable, and specific factors.

Another pattern revealed significant differences between the “truants” and the non-truants, and the “non-attenders” and the non-truants in their attribution to bad events. Table 36 showed that the mean differences for all measures of attribution to bad events were statistically significant ( $p < .05$ ). The direction of the mean differences indicated that both the “truants” and the “non-attenders” were more likely than the non-truants to explain bad events as due to internal, stable, and global factors.

The last pattern comprised all measures of attribution for which no significant differences were found between the “non-attenders” and the “truants”. This pattern of findings indicated that the “non-attenders” and the “truants” tended to display a similar attributional pattern that explains good events as due to external, unstable, and specific factors, but explains bad events as due to internal, stable, and global factors.

Table 36. Means, SD and paired comparison of means of locus of control, measures of internality, stability, and globality for good and bad events, and composite measures for good and bad events by level of truancy

| Measures         | Non-truant (N=255) |      | Truant 13 days or less (N=101) |      | Non-attender 14 days or more (N=28) |      | F         | Paired comparison |              | Mean Difference |
|------------------|--------------------|------|--------------------------------|------|-------------------------------------|------|-----------|-------------------|--------------|-----------------|
|                  | Mean               | SD   | Mean                           | SD   | Mean                                | SD   |           |                   |              |                 |
| Locus of control | 15.33              | 5.43 | 16.32                          | 5.81 | 17.61                               | 5.09 | 2.869#    | Non-truant        | Truant       | .25790          |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | 4.9729          |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | 4.1817          |
| Internal-good    | 14.84              | 2.13 | 10.81                          | 2.27 | 10.93                               | 2.21 | 145.260** | Non-truant        | Truant       | -4.0273*        |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | -3.9106*        |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | .1167           |
| Internal-bad     | 10.95              | 2.19 | 14.53                          | 2.21 | 14.71                               | 2.55 | 113.608** | Non-truant        | Truant       | 3.5817*         |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | 3.7613*         |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | .1796           |
| Stable-good      | 14.56              | 2.34 | 10.69                          | 2.35 | 11.82                               | 2.31 | 105.232** | Non-truant        | Truant       | -3.8716*        |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | -2.7433*        |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | 1.1284          |
| Stable-bad       | 10.80              | 2.63 | 14.37                          | 2.25 | 15.00                               | 2.34 | 93.503**  | Non-truant        | Truant       | 3.5663*         |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | 4.2000*         |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | .6337           |
| Global-good      | 14.24              | 2.26 | 10.44                          | 2.81 | 10.96                               | 2.67 | 97.713**  | Non-truant        | Truant       | -3.7997*        |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | -3.2710*        |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | .5286           |
| Global-bad       | 10.73              | 2.47 | 14.69                          | 2.26 | 14.18                               | 2.31 | 110.569** | Non-truant        | Truant       | 3.9676*         |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | 3.4531*         |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | -.5145          |
| Composite-good   | 43.64              | 5.23 | 31.94                          | 5.57 | 33.71                               | 5.05 | 195.709** | Non-truant        | Truant       | -11.6986*       |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | -9.9249*        |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | 1.7737          |
| Composite-bad    | 32.48              | 5.20 | 43.59                          | 5.12 | 43.89                               | 6.10 | 194.450** | Non-truant        | Truant       | 11.1156*        |
|                  |                    |      |                                |      |                                     |      |           | Non-truant        | Non-attender | 11.4144*        |
|                  |                    |      |                                |      |                                     |      |           | Truant            | Non-attender | .2988           |

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

The results reported above indicated that the “truant” and the “non-attender” subgroups could be combined into an overall truant group in the detailed analyses to be conducted for the present thesis.

To compare the truants and non-truants on their family and school experiences, a 3 (Form) x 2 (gender) x 2 (truancy status) between-subjects multivariate analyses of variance (MANOVA) was conducted to assess possible group differences in the family and school experience measures. The family and school experience measures included: relationships with parents, relationships with siblings, relationships with classmates, relationships with teachers, academic self-evaluation of English, Chinese, and mathematics, index of perceived value of schooling, and index of problem behaviours in school.

To compare the truants and non-truants on their orientation of locus of control, a 3 (Form) x 2 (gender) x 2 (truancy status) between-subjects analyses of variance (ANOVA) was conducted to assess possible group differences in the Nowicki-Strickland



Locus of Control Scale (1973). In addition to the question of whether truancy relates to locus of control, the analysis also provides answers to the following questions: Does Form relate to locus of control ? Does gender relate to locus of control ? Is there an interaction between the effects of Form and gender ? Is there an interaction between Form and truancy ? Is there an interaction between gender and truancy ? Is there an interaction among Form, gender, and truancy ?

To describe children's family and school experiences in relation to one another and to their orientation of locus of control for the truants and non-truants, the relations were examined through a series of two-tailed correlations, conducted separately for each status group.

To assess possible group differences in causal attributions, a 3 (Form) x 2 (gender) x 2 (truancy status) between-subject multivariate analyses of variance (MANOVA) was conducted for the 8 attribution measures. The results of MANOVA consist of two parts. The first part gives the results of four multivariate tests of significance, including Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root. These tests provide a measure of whether groups differ significantly in their scores on the set of dependent variables. The present analysis was based on the results of the Pillai's Trace which is the most powerful and robust of all the multivariate tests of significance available (George & Mallery, 2003). The other part gives the results of the univariate F tests which indicate whether groups differ on each of the dependent variables considered separately instead of a set. For each of the dependent variables, pairwise comparisons were also computed for all combinations of categories of the independent /grouping variable. The Tukey's HSD, one of the most popular post hoc tests (George & Mallery, 2003), was computed for each of the pairwise comparisons to determine whether the difference between the two means is statistically significant.

As in the case of locus of control, correlational analyses were performed to examine children's family and school experiences in relation to their causal attributions and to examine how the relations vary within each status group.

The results of multivariate analysis of variance on status differences in family and school experiences are presented first.

### Status Differences in Family and School Experiences

A 3 (Form) x 2 (gender) x 2 (truancy status) between-subjects multivariate analyses of variance (MANOVA) was conducted to assess possible group differences in the family and school experience measures. The results to be presented below include the significant results of the multivariate test of significance and the univariate F tests; the results of pairwise comparisons and the probability associated with the Tukey's HSD test; and the cell means and standard deviations for the subgroups formed by interactions.

Table 37 presents the significant results of the multivariate test of significance and the univariate F tests. As shown in the Table, the MANOVA done on the family and school experience measures yielded a significant effect for truancy [Pillai's Trace = .265,  $F(9, 331) = 13.267$ ,  $p < .01$ ], Form [Pillai's Trace = .114,  $F(18, 664) = 2.240$ ,  $p < .01$ ], and gender [Pillai's Trace = .067,  $F(9, 331) = 2.655$ ,  $p < .01$ ]. These results showed that the status groups, Forms, and the gender groups differed significantly in their scores on the set of family and school experience measures.

The results of the univariate F tests for truancy status were significant for relationships with teachers [ $F(1, 372) = 9.462$ ,  $p < .01$ ], evaluation of English [ $F(1, 372) = 8.538$ ,  $p < .01$ ], evaluation of Mathematics [ $F(1, 372) = 9.199$ ,  $p < .01$ ], index of perceived value of schooling [ $F(1, 372) = 21.288$ ,  $p < .01$ ], and for index of problem behaviours [ $F(1, 372) = 92.115$ ,  $p < .01$ ]. The univariate F tests thus revealed significant differences between truants and non-truants on these measures.

The results of the univariate F tests for Form were significant for relationships with parents [ $F(2, 372) = 4.281$ ,  $p < .05$ ], relationships with classmates [ $F(2, 372) = 4.524$ ,  $p < .05$ ], and for index of problem behaviour [ $F(2, 372) = 6.930$ ,  $p < .01$ ]. Thus the Forms differed on each of these measures considered separately.

The results of the univariate tests for gender were significant for evaluation of Mathematics [ $F(1, 372) = 5.110$ ,  $p < .05$ ], and for evaluation of Chinese [ $F(1, 372) = 3.908$ ,  $p < .05$ ]. Thus there were significant differences between male and female students in self-evaluation of their performance in Mathematics and Chinese.

The results of univariate interactions indicate that the interaction of Form by gender was significant on relationships with parents [ $F(2, 372) = 5.091, p < .01$ ], relationships with siblings [ $F(2, 372) = 3.279, p < .05$ ], and evaluation of English [ $F(2, 372) = 3.683, p < .05$ ] and Mathematics [ $F(2, 372) = 4.423, p < .05$ ].

Table 37. Significant results of multivariate analysis of variance on the family and school experience measures

| Multivariate test of significance |                                       |             |          |         |
|-----------------------------------|---------------------------------------|-------------|----------|---------|
| Effect                            | Test Name                             | Value       | F        | df      |
| FORM                              | Pillai's Trace                        | .114        | 2.240**  | 18, 664 |
| GENDER                            | Pillai's Trace                        | .067        | 2.655**  | 9, 331  |
| TRUANCY                           | Pillai's Trace                        | .265        | 13.267** | 9, 331  |
| Univariate F-tests                |                                       |             |          |         |
| Source                            | Dependent Variable                    | Mean Square | F        | df      |
| FORM                              | Relationships with parents            | 2.139       | 4.281*   | 2, 372  |
|                                   | Index of problem behaviours           | 285.277     | 6.930**  | 2, 372  |
|                                   | Relationships with classmates         | 1.729       | 4.524*   | 2, 372  |
| GENDER                            | Evaluation of mathematics             | 4.566       | 5.110*   | 1, 372  |
|                                   | Evaluation of Chinese                 | 2.551       | 3.908*   | 1, 372  |
| TRUANCY                           | Index of problem behaviours           | 3791.824    | 92.115** | 1, 372  |
|                                   | Index of perceived value of schooling | 206.373     | 21.288** | 1, 372  |
|                                   | Relationships with teacher            | 4.983       | 9.462**  | 1, 372  |
|                                   | Evaluation of English                 | 6.430       | 8.538**  | 1, 372  |
|                                   | Evaluation of mathematics             | 8.221       | 9.199**  | 1, 372  |
| FORM*<br>GENDER                   | Relationships with parents            | 2.483       | 5.091**  | 2, 372  |
|                                   | Relationships with siblings           | 1.630       | 3.279*   | 2, 332  |
|                                   | Evaluation of English                 | 2.730       | 3.683*   | 2, 372  |
|                                   | Evaluation of mathematics             | 3.874       | 4.423*   | 2, 372  |

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

Table 38 displays the results of pairwise comparisons and the probability associated with the Tukey's HSD test.

Pairwise comparison of mean differences for truancy showed that the truants had a higher mean on evaluation of English ( $M = 1.12, SD = .91$ ) and Mathematics ( $M = 1.32, SD = .98$ ), and index of problem behaviour ( $M = 11.55, SD = 9.39$ ) but a lower mean on relationships with teachers ( $M = 2.68, SD = .83$ ), and index of perceived value of schooling ( $M = 10.53, SD = 9.39$ ) than the non-truants (Evaluation of English:  $M = .84, SD = .86$ ; Mathematics:  $M = 1.02, SD = .96$ ; index of problem behaviour:  $M = 4.15, SD$

= 4.51; relationships with teachers:  $M = 2.98$ ,  $SD = .98$ ; index of perceived value of schooling:  $M = 12.16$ ,  $SD = 3.15$ ). The results of the Tukey's HSD test indicate that the mean difference of all pairwise comparisons was statistically significant ( $p < .01$ ).

Pairwise comparisons of the means for Form showed that the Form 3 students ( $M = 3.05$ ,  $SD = .71$ ) tended to be less likely to have good relationships with parents than those in Form 1 ( $M = 3.30$ ,  $SD = .74$ ) and Form 2 ( $M = 3.12$ ,  $SD = .70$ ). Among the possible pairs of mean difference, only the Form 3 – Form 1 pair was statistically significant ( $p < .05$ ). Results for relationships with classmates indicate that the Form 3 students ( $M = 3.00$ ,  $SD = .65$ ) were less likely to have good relationships with classmates than students in the other Forms (Form 1:  $M = 3.21$ ,  $SD = .60$ ; Form 2:  $M = 3.25$ ,  $SD = .58$ ). The mean difference of Form 3 and Form 1 and that of Form 3 and Form 2 were found to be significantly difference ( $p < .05$ ). For index of problem behaviour, the Form 3 students scored ( $M = 7.90$ ,  $SD = 7.62$ ) higher than those in the other Forms (Form 2:  $M = 7.39$ ,  $SD = 7.94$ ; Form 1:  $M = 4.77$ ,  $SD = 6.38$ ). Only two pairs of differences were significant, which show that students in both Form 3 and Form 1 were more likely than the Form 1 students to have problem behaviour ( $p < .01$  and  $p < .05$  respectively).

Pairwise comparisons of mean differences for gender showed that boys tended to have a higher evaluation in Mathematics ( $M = 1.21$ ,  $SD = .99$ ) than girls ( $M = .99$ ,  $SD = .93$ ). For evaluation of Chinese, however, boys tended to have a lower evaluation ( $M = 1.37$ ,  $SD = .86$ ) than girls ( $M = 1.49$ ,  $SD = .75$ ). The mean differences were statistically significant ( $p < .05$ ).

Table 38. Pairwise comparisons of means of family and school experience measures by Form, gender, and truancy status

| Dependent Variable | Form 1 |      | Form 2 |      | Form 3 |      | Paired comparison |        | Mean Difference |
|--------------------|--------|------|--------|------|--------|------|-------------------|--------|-----------------|
|                    | Mean   | SD   | Mean   | SD   | Mean   | SD   |                   |        |                 |
| PCR                | 3.30   | .74  | 3.12   | .70  | 3.05   | .71  | Form 1            | Form 3 | .2565*          |
| IPB                | 4.77   | 6.38 | 7.39   | 7.94 | 7.90   | 7.62 | Form 1            | Form 2 | -2.6231*        |
|                    |        |      |        |      |        |      | Form 1            | Form 3 | -3.1273**       |
| RWC                | 3.21   | .60  | 3.25   | .58  | 3.00   | .65  | Form 1            | Form 3 | .2148*          |
|                    |        |      |        |      |        |      | Form 2            | Form 3 | .2459*          |
|                    |        |      |        |      |        |      |                   |        |                 |
|                    |        |      | Male   |      | Female |      |                   |        |                 |
|                    |        |      | Mean   | SD   | Mean   | SD   |                   |        |                 |

|     |  |            |      |        |      |            |        |           |
|-----|--|------------|------|--------|------|------------|--------|-----------|
| EOM |  | 1.21       | .99  | .99    | .93  | Male       | Female | 2196*     |
| EOC |  | 1.37       | .86  | 1.49   | .75  | Male       | Female | 1217*     |
|     |  |            |      |        |      |            |        |           |
|     |  | Non-truant |      | Truant |      |            |        |           |
|     |  | Mean       | SD   | Mean   | SD   |            |        |           |
| IPB |  | 4.15       | 4.51 | 11.55  | 9.39 | Non-truant | Truant | -7.3975** |
| IVS |  | 12.16      | 3.15 | 10.53  | 3.26 | Non-truant | Truant | 1.6337**  |
| RWT |  | 2.98       | .68  | 2.68   | .83  | Non-truant | Truant | .2982**   |
| EOE |  | .84        | .86  | 1.12   | .91  | Non-truant | Truant | -.2809**  |
| EOM |  | 1.02       | .96  | 1.32   | .98  | Non-truant | Truant | -.2943**  |

\*p < .05; \*\*p < .01

Note:

PCR - Relationships with parents

IPB - Index of problem behaviour

RWC - Relationships with classmates

EOE - Evaluation of English

EOC - Evaluation of Chinese

SCR - Relationships with siblings

IVS - Index of perceived value of schooling

RWT - Relationships with teachers

EOM - Evaluation of mathematics

Table 39 shows the cell means and standard deviations for the subgroups formed by interactions. It was previously reported that the interaction of Form by gender was significant on relationships with parents, relationships with siblings, and evaluation of English and Mathematics. Inspection of the interaction effect means for the subgroups showed that, among the subgroups, the Form 3 girls scored the lowest on relationships with parents ( $M = 2.80$ ,  $SD = .69$ ), relationships with siblings ( $M = 2.88$ ,  $SD = .84$ ), and evaluation of Mathematics ( $M = .75$ ,  $SD = .84$ ). For evaluation of English, the mean of the Form 1 girls was the lowest ( $M = .76$ ,  $SD = .61$ ) of all.

Table 39. Comparisons of means of family and school experience measures by Form-gender subgroups

|                             | Form 1         |                  | Form 2         |                  | Form 3         |                  |
|-----------------------------|----------------|------------------|----------------|------------------|----------------|------------------|
|                             | Male<br>(N=81) | Female<br>(N=54) | Male<br>(N=68) | Female<br>(N=54) | Male<br>(N=76) | Female<br>(N=51) |
| Relationships with parents  |                |                  |                |                  |                |                  |
| Mean                        | 3.31           | 3.30             | 3.07           | 3.19             | 3.21           | 2.80             |
| SD                          | .75            | .72              | .68            | .73              | .68            | .69              |
| Relationships with siblings |                |                  |                |                  |                |                  |
| Mean                        | 3.24           | 3.22             | 3.13           | 3.31             | 3.18           | 2.88             |
| SD                          | .68            | .74              | .71            | .68              | .60            | .84              |
| Evaluation of English       |                |                  |                |                  |                |                  |
| Mean                        | 1.04           | .76              | .79            | 1.13             | .86            | 1.08             |
| SD                          | 1.00           | .61              | .91            | .95              | .86            | .84              |
| Evaluation of               |                |                  |                |                  |                |                  |

|             |      |     |      |      |      |     |
|-------------|------|-----|------|------|------|-----|
| mathematics |      |     |      |      |      |     |
| Mean        | 1.33 | .87 | 1.19 | 1.35 | 1.11 | .75 |
| SD          | .96  | .85 | .97  | .99  | 1.05 | .84 |

### Status Differences in Locus of Control

A 3 (Form) x 2 (gender) x 2 (truancy status) between-subjects analyses of variance (ANOVA) was conducted to assess possible group differences in locus of control. The analysis was conducted to examine locus of control in relation to truancy status, Form, and gender, as well as the interactions among these variables. The significant results of the ANOVA as well as the cell means and standard deviations are presented in Table 40.

The ANOVA, done on respondents' locus of control scores, showed that the truants did not score significantly greater externality of locus of control than the non-truants although the truants had a higher mean score ( $M = 16.60$ ,  $SD = 5.67$ ) than the non-truants ( $M = 15.33$ ,  $SD = 5.43$ ). However, the result was only a little short of significance ( $p = .054$ ).

There was a significant effect of Form [ $F(2, 372) = 3.085$ ,  $p < .05$ ], and a significant cross effect between Form and gender [ $F(2, 372) = 3.594$ ,  $p < .05$ ]. Inspection of the main effect means for Form showed that the Form 3 students ( $M = 16.39$ ,  $SD = 4.96$ ) tended to be more externally oriented than those in the other Forms (Form 2:  $M = 16.11$ ,  $SD = 5.80$ ; Form 1:  $M = 14.83$ ,  $SD = 5.72$ ). Inspection of the interaction effect means for the subgroups formed by Form and gender showed that the Form 3 girls ( $M = 17.88$ ,  $SD = 5.56$ ) scored a higher level of externality than Form 2 boys ( $M = 16.72$ ,  $SD = 5.88$ ), Form 3 boys ( $M = 15.39$ ,  $SD = 4.27$ ), Form 2 girls ( $M = 15.35$ ,  $SD = 5.65$ ), Form 1 boys ( $M = 14.85$ ,  $SD = 6.17$ ), and Form 1 girls ( $M = 14.79$ ,  $SD = 5.02$ ).

Table 40. Significant results of three-way ANOVA on locus of control and mean and SD of locus of control by subgroups of Form and gender

|              | Mean    | S.D.    | F      | df     |
|--------------|---------|---------|--------|--------|
| Form         |         |         |        |        |
| Form 1       | 14.8296 | 5.71923 |        |        |
| Form 2       | 16.1148 | 5.79712 |        |        |
| Form 3       | 16.3937 | 4.96361 | 3.085* | 2, 372 |
| Form*Gender  |         |         |        |        |
| Form 1, male | 14.8519 | 6.17274 |        |        |

|                |         |         |        |        |
|----------------|---------|---------|--------|--------|
| Form 1, female | 14.7963 | 5.01838 |        |        |
| Form 2, male   | 16.7206 | 5.88407 |        |        |
| Form 2, female | 15.3519 | 5.64737 |        |        |
| Form 3, male   | 15.3947 | 4.27420 |        |        |
| Form 3, female | 17.8824 | 5.55931 | 3.594* | 2, 372 |

\* $p < .05$ .

### Relations among Locus of Control, Family and School Experiences, and Truancy Status

Correlational analyses were performed to describe the relationships among locus of control, family and school experience, and truancy status. The relations, as shown by a series of two-tailed correlations conducted separately for each status group, are presented in Table 41.

The intercorrelations of the family and school experience measures for both truants and non-truants indicate that relationships with parents was significantly related to relationships with siblings (non-truant:  $r = .514$ ,  $p < .01$ ; truant:  $r = .259$ ,  $p < .01$ ), relationships with teachers (non-truant:  $r = .212$ ,  $p < .01$ ; truant:  $r = .325$ ,  $p < .01$ ), evaluation of Chinese (non-truant:  $r = .143$ ,  $p < .05$ ; truant:  $r = .198$ ,  $p < .05$ ), perceived value of schooling (non-truant:  $r = .241$ ,  $p < .01$ ; truant:  $r = .218$ ,  $p < .05$ ), and index of problem behaviours (non-truant:  $r = -.316$ ,  $p < .01$ ; truant:  $r = -.345$ ,  $p < .01$ ). However, relationships with parents was significantly related to relationships with classmates only for the non-truants but not for the truants (non-truant:  $r = .231$ ,  $p < .01$ ; truant:  $r = .047$ ,  $p > .05$ ).

Relationships with siblings was not only significantly related to relationships with parents for both truants and non-truants (non-truant:  $r = .514$ ,  $p < .01$ ; truant:  $r = .259$ ,  $p < .01$ ), it was also significantly related to perceived value of schooling (non-truant:  $r = .249$ ,  $p < .01$ ; truant:  $r = .282$ ,  $p < .01$ ), and index of problem behaviours (non-truant:  $r = -.199$ ,  $p < .01$ ; truant:  $r = .281$ ,  $p < .01$ ). However, relationships with siblings for the non-truants was also significantly related to relationships with classmates ( $r = .312$ ,  $p < .01$ ), relationships with teachers ( $r = .227$ ,  $p < .01$ ), evaluation of Mathematics ( $r = .154$ ,  $p < .05$ ), and evaluation of Chinese ( $r = .203$ ,  $p < .05$ ).

Index of problem behaviours was not only significantly related to relationships with parents (non-truant:  $r = -.316$ ,  $p < .01$ ; truant:  $r = -.345$ ,  $p < .01$ ) and siblings (non-truant:  $r = -.199$ ,  $p < .01$ ; truant:  $r = -.281$ ,  $p < .01$ ) for both groups, it was also

significantly related to perceived value of schooling (non-truant:  $r = -.243, p < .01$ ; truant:  $r = -.517, p < .01$ ) and relationships with teachers (non-truant:  $r = -.191, p < .01$ ; truant:  $r = .331, p < .01$ ).

In addition to relationships with parents (non-truant:  $r = .241, p < .01$ ; truant:  $r = .218, p < .05$ ) and siblings (non-truant:  $r = .249, p < .01$ ; truant:  $r = .282, p < .01$ ) and index of problem behaviours (non-truant:  $r = -.243, p < .01$ ; truant:  $r = -.517, p < .01$ ), perceived value of schooling was also significantly related to relationships with teachers (non-truant:  $r = .357, p < .01$ ; truant:  $r = .383, p < .01$ ) and evaluation of Mathematics (non-truant:  $r = .293, p < .01$ ; truant:  $r = .181, p < .05$ ). For the non-truants, perceived value of schooling was also significantly related to relationships with classmates ( $r = .332, p < .01$ ), evaluation of English ( $r = .182, p < .01$ ), and evaluation of Chinese ( $r = .270, p < .01$ ).

For the non-truants, relationships with classmates was not only significantly related to relationships with parents (non-truant:  $r = .231, p < .01$ ) and siblings ( $r = .312, p < .01$ ) as previously described, it was also significantly related to relationships with teachers ( $r = .223, p < .01$ ) and evaluation of Chinese ( $r = .273, p < .01$ ). For the truants, relationships with classmates was significantly related to relationships with teachers ( $r = .289, p < .01$ ) and evaluation of English ( $r = .243, p < .01$ ).

Relationships with teachers for both truants and non-truants had been shown to relate significantly to relationships with parents (non-truant:  $r = .212, p < .01$ ; truant:  $r = .325, p < .01$ ), relationships with classmates (non-truant:  $r = .223, p < .01$ ; truant:  $r = .289, p < .01$ ), perceived value of schooling (non-truant:  $r = .357, p < .01$ ; truant:  $r = .383, p < .05$ ), and problem behaviours (non-truant:  $r = -.191, p < .01$ ; truant:  $r = -.331, p < .01$ ). For the non-truant group, relationships with teachers was also significantly related to evaluation of Chinese ( $r = .230, p < .01$ ).

For both truants and non-truants, evaluation of English was significantly related to evaluation of Chinese (non-truant:  $r = .227, p < .01$ ; truant:  $r = .331, p < .01$ ). As previously reported, evaluation of English was also significantly related to perceived value of schooling ( $r = .182, p < .01$ ) for the non-truants; whereas for the truants, this variable was also significantly related to relationships with classmates ( $r = .243, p < .01$ ).



For both groups, evaluation of Mathematics was not only significantly related to perceived value of schooling (non-truant:  $r = .293$ ,  $p < .01$ ; truant:  $r = .181$ ,  $p < .01$ ) as reported previously, it was also significantly related to evaluation of Chinese (non-truant:  $r = .253$ ,  $p < .01$ ; truant:  $r = .277$ ,  $p < .01$ ).

The results for both groups on evaluation of Chinese had been reported when other results were presented. The results indicate that, for both truants and non-truants, evaluation of Chinese was significantly related to relationships with parents (non-truant:  $r = .143$ ,  $p < .05$ ; truant:  $r = .198$ ,  $p < .05$ ), evaluation of English (non-truant:  $r = .227$ ,  $p < .01$ ; truant:  $r = .331$ ,  $p < .01$ ), and evaluation of Mathematics (non-truant:  $r = .253$ ,  $p < .01$ ; truant:  $r = .277$ ,  $p < .01$ ). However, evaluation of Chinese was also significantly related to relationships with siblings ( $r = .203$ ,  $p < .01$ ), perceived value of schooling ( $r = .270$ ,  $p < .01$ ), relationships with classmates ( $r = .273$ ,  $p < .01$ ), and relationships with teachers ( $r = .230$ ,  $p < .01$ ) for the non-truants but not for the truants.

Table 41. Intercorrelations for family and school experience measures by truancy status

|            | PCR     | SCR     | IPB     | IVS     | RWC     | RWT     | EOE    | EOM    | EOC     |
|------------|---------|---------|---------|---------|---------|---------|--------|--------|---------|
| Non-truant |         |         |         |         |         |         |        |        |         |
| SCR        | .514**  |         |         |         |         |         |        |        |         |
| IPB        | -.316** | -.199** |         |         |         |         |        |        |         |
| IVS        | .241**  | .249**  | -.243** |         |         |         |        |        |         |
| RWC        | .231**  | .312**  | -.079   | .332**  |         |         |        |        |         |
| RWT        | .212**  | .227**  | -.191** | .357**  | .223**  |         |        |        |         |
| EOE        | -.055   | .070    | .076    | .182**  | .095    | .048    |        |        |         |
| EOM        | .064    | .154*   | -.077   | .293**  | .036    | .049    | .119   |        |         |
| EOC        | .143*   | .203**  | -.085   | .270**  | .273**  | .230**  | .227** | .253** |         |
| LC         | -.395** | -.291** | .358**  | -.393** | -.194** | -.254** | -.008  | -.138* | -.206** |
| Truant     |         |         |         |         |         |         |        |        |         |
| SCR        | .259**  |         |         |         |         |         |        |        |         |
| IPB        | -.345** | -.281** |         |         |         |         |        |        |         |
| IVS        | .218*   | .282**  | -.517** |         |         |         |        |        |         |
| RWC        | .047    | .053    | .017    | .036    |         |         |        |        |         |
| RWT        | .325**  | -.012   | -.331** | .383*   | .289**  |         |        |        |         |
| EOE        | .047    | -.123   | .118    | .104    | .243**  | .104    |        |        |         |
| EOM        | .164    | .056    | -.077   | .181*   | .024    | .077    | .043   |        |         |
| EOC        | .198*   | -.039   | .166    | -.041   | .034    | .035    | .331** | .277*  |         |
| LC         | -.447** | -.288** | .368**  | -.358*  | -.154   | -.268** | -.131  | -.127  | -.098   |

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

Note:  
PCR - Relationships with parents

SCR - Relationships with siblings

IPB - Index of problem behaviours  
 RWC - Relationships with classmates  
 EOE - Evaluation of English  
 EOC - Evaluation of Chinese

IVS - Index of perceived value of schooling  
 RWT - Relationships with teachers  
 EOM - Evaluation of mathematics  
 LC - Locus of control

The correlations of the family and school experience measures with locus of control indicate that, for both truants and non-truants, locus of control was significantly related to relationships with parents (non-truant:  $r = -.395$ ,  $p < .01$ ; truant:  $r = -.447$ ,  $p < .01$ ), relationships with siblings (non-truant:  $r = -.291$ ,  $p < .01$ ; truant:  $r = -.288$ ,  $p < .01$ ), relationships with teachers (non-truant:  $r = -.254$ ,  $p < .01$ ; truant:  $r = -.268$ ,  $p < .01$ ), perceived value of schooling (non-truant:  $r = -.393$ ,  $p < .01$ ; truant:  $r = -.358$ ,  $p < .01$ ), and problem behaviours (non-truant:  $r = .358$ ,  $p < .01$ ; truant:  $r = .368$ ,  $p < .01$ ). For both groups, locus of control was also negatively related to relationships with classmates (non-truant:  $r = -.194$ ,  $p < .01$ ; truant:  $r = -.154$ ,  $p > .05$ ), as well as evaluation of Mathematics (non-truant:  $r = -.138$ ,  $p < .05$ ; truant:  $r = -.127$ ,  $p > .05$ ) and Chinese (non-truant:  $r = -.206$ ,  $p < .01$ ; truant:  $r = -.098$ ,  $p > .05$ ). Despite that the relationships for both groups were in the expected direction, only those for the non-truants were statistically significant.

#### Status Differences in Attributions

A total of eight 3 (Form) x 2 (gender) x 2 (truancy status) between-subjects analyses of variance (MANOVAS) were conducted to assess possible group differences in children's causal attributions. The results to be presented include the significant results of the multivariate test of significance and the univariate F tests; the significant results of pairwise comparisons and the probability associated with the Tukey's HSD test; and the cell means and standard deviations for the subgroups formed by interactions.

Table 42 shows the significant results of the multivariate test of significance and the univariate F tests. As shown in the Table, the MANOVA done on children's causal attributions yielded a significant effect for truancy [Pillai's Trace = .702,  $F(6, 374) = 146.754$ ,  $p < .01$ ], Form [Pillai's Trace = .061,  $F(12, 750) = 1.977$ ,  $p < .05$ ], and gender [Pillai's Trace = .045,  $F(6, 374) = 2.905$ ,  $p < .01$ ]. These results showed that the status groups, Forms, and the gender groups differed significantly in their scores on the set of attributional measures.

The results of the univariate F tests for truancy status were significant for all of the attributional measures, which included: internality for good outcomes [F (1, 372) = 283.944,  $p < .01$ ]; internality for bad outcomes [F (1, 372) = 228.796,  $p < .01$ ]; stability for good outcomes [F (1, 372) = 202.379,  $p < .01$ ]; stability for bad outcomes [F (1, 372) = 182.295,  $p < .01$ ]; globality for good outcomes [F (1, 372) = 187.618,  $p < .01$ ]; globality for bad outcomes [F (1, 372) = 221.614,  $p < .01$ ]; composite measure for good outcomes [F (1, 372) = 377.478,  $p < .01$ ]; and composite measure for bad outcomes [F (1, 372) = 398.139,  $p < .01$ ].

The results of the univariate F tests for Form were significant for internality for bad outcomes [F (2, 372) = 3.584,  $p < .05$ ], and globality for bad outcomes [F (2, 372) = 3.917,  $p < .05$ ]. Although the result for stability for bad outcomes was not significant, significant difference was found for the composite measure for bad outcomes [F (2, 372) = 6.193,  $p < .01$ ] which include the stability dimension.

The results of the univariate F tests for gender were significant for internality for bad outcomes [F (1, 372) = 5.709,  $p < .05$ ], globality for bad outcomes [F (1, 372) = 6.200,  $p < .05$ ], and for the composite measure for bad outcomes [F (1, 372) = 8.019,  $p < .01$ ].

The results of univariate interactions indicate that the interaction of Form by truancy status was significant on the measure of stability for good outcomes [F (2, 372) = 6.075,  $p < .05$ ], and the composite measure for good outcomes [F (2, 372) = 4.301,  $p < .05$ ].

Table 42. Significant results of multivariate analysis of variance on the attribution measures

| Multivariate test of significance |                    |             |           |         |
|-----------------------------------|--------------------|-------------|-----------|---------|
| Effect                            | Test Name          | Value       | F         | df      |
| FORM                              | Pillai's Trace     | .061        | 1.977*    | 12, 750 |
| SEX                               | Pillai's Trace     | .045        | 2.905**   | 6, 374  |
| TRUANCY                           | Pillai's Trace     | .702        | 146.754** | 6, 374  |
| Univariate F-tests                |                    |             |           |         |
| Source                            | Dependent Variable | Mean Square | F         | df      |
| FORM                              | Internal-bad       | 17.240      | 3.584*    | 2, 372  |
|                                   | Global-bad         | 22.017      | 3.917*    | 2, 372  |

|         |                |           |           |        |
|---------|----------------|-----------|-----------|--------|
|         | Composite-bad  | 162.690   | 6.193**   | 2, 372 |
| SEX     | Internal-bad   | 27.460    | 5.709*    | 1, 372 |
|         | Global-bad     | 34.851    | 6.200*    | 1, 372 |
|         | Composite-bad  | 210.686   | 8.019**   | 1, 372 |
| TRUANCY | Internal-good  | 1348.074  | 283.944** | 1, 372 |
|         | Internal-bad   | 1100.551  | 228.796** | 1, 372 |
|         | Stable-good    | 1112.392  | 202.379** | 1, 372 |
|         | Stable-bad     | 1142.784  | 182.295** | 1, 372 |
|         | Global-good    | 1109.183  | 187.618** | 1, 372 |
|         | Global-bad     | 1245.670  | 221.614** | 1, 372 |
|         | Composite-good | 10685.993 | 377.478** | 1, 372 |
|         | Composite-bad  | 10459.908 | 398.139** | 1, 372 |
| FORM*   |                |           |           |        |
| TRUANCY | Stable-good    | 32.519    | 6.075**   | 2, 372 |
|         | Composite-good | 119.682   | 4.301*    | 2, 372 |

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

Table 43 shows the results of pairwise comparisons and the probability associated with the Tukey's HSD test.

Pairwise comparisons of mean differences for truancy status indicate that, for attributions to good outcomes, the truants scored significantly lower than the non-truants on all measures, including internality (Truant:  $M = 10.84$ ,  $SD = 2.25$ ; Non-truant:  $M = 14.84$ ,  $SD = 2.13$ ), stability (Truant:  $M = 10.94$ ,  $SD = 2.38$ ; Non-truant:  $M = 14.56$ ,  $SD = 2.34$ ), globality (Truant:  $M = 10.55$ ,  $SD = 2.78$ ; Non-truant:  $M = 14.24$ ,  $SD = 2.26$ ), as well as the composite measure (Truant:  $M = 32.33$ ,  $SD = 5.50$ ; Non-truant:  $M = 43.64$ ,  $SD = 5.23$ ). On the contrary, for attributions to bad outcomes, the truants scored significantly higher than the non-truants on all measures. The mean differences of the two groups on internality (Truant:  $M = 14.57$ ,  $SD = 2.28$ ; Non-truant:  $M = 10.95$ ,  $SD = 2.19$ ), stability (Truant:  $M = 14.50$ ,  $SD = 2.28$ ; Non-truant:  $M = 10.80$ ,  $SD = 2.63$ ), globality (Truant:  $M = 14.58$ ,  $SD = 2.27$ ; Non-truant:  $M = 10.73$ ,  $SD = 2.47$ ), and the composite measure (Truant:  $M = 43.66$ ,  $SD = 5.32$ ; Non-truant:  $M = 32.48$ ,  $SD = 5.20$ ) suggest that the truants were more likely than the non-truants to explain bad events as due to internal, stable, and global factors. All the mean differences were statistically significant ( $p < .01$ ).

Pairwise comparisons and the associated Tukey's HSD test revealed significant mean differences of the Form 1 and Form 3 pair in the measures of internality and globability ( $p < .01$ ), showing that the Form 3 students were more likely to attribute bad events to internal ( $M = 12.72$ ,  $SD = 3.03$ ) and global ( $M = 12.70$ ,  $SD = 3.14$ ) factors than those in Form 1 (Internality:  $M = 11.62$ ,  $SD = 2.44$ ; Globality:  $M = 11.48$ ,  $SD =$

2.84). The mean difference for the composite measure for bad outcomes of this pair of Form 1 ( $M = 34.58$ ,  $SD = 7.06$ ) and Form 3 ( $M = 37.98$ ,  $SD = 8.02$ ) students was also significant ( $p < .01$ ). With the composite measure considered, it may be concluded that the Form 3 students were more likely than their Form 1 counterparts to explain bad events as due to internal, stable, and global factors.

The results of pairwise comparisons showed significant mean differences of the male and female groups in internality for bad outcomes, globality for bad outcomes, and the composite measure for bad outcomes. These findings revealed that the male students tended to be more likely to attribute bad events to internal ( $M = 12.27$ ,  $SD = 2.79$ ) and global ( $M = 12.15$ ,  $SD = 2.97$ ) factors than the female students (Internality:  $M = 12.03$ ,  $SD = 2.82$ ; Globality:  $M = 11.84$ ,  $SD = 3.08$ ). Based on the mean difference in the composite measure for bad outcomes (Male:  $M = 36.48$ ,  $SD = 7.25$ ; Female:  $M = 35.89$ ,  $SD = 7.71$ ), it may be concluded that boys were more likely than girls to attribute bad events to internal, stable, and global factors.

Table 43. Pairwise Comparisons of means of attribution measures by form, gender, and truancy status

| Dependent Variable | Form 1 |      | Form 2     |      | Form 3 |      | Paired comparison |        | Mean Difference |
|--------------------|--------|------|------------|------|--------|------|-------------------|--------|-----------------|
|                    | Mean   | SD   | Mean       | SD   | Mean   | SD   |                   |        |                 |
| Internal-bad       | 11.62  | 2.44 | 12.20      | 2.85 | 12.72  | 3.03 | Form 1            | Form 3 | -1.0943**       |
| Global-bad         | 11.48  | 2.84 | 11.91      | 2.96 | 12.70  | 3.14 | Form 1            | Form 3 | -1.2193**       |
| Composite-bad      | 34.58  | 7.06 | 36.25      | 6.83 | 37.98  | 8.02 | Form 1            | Form 3 | -3.3912**       |
|                    |        |      |            |      |        |      |                   |        |                 |
|                    |        |      | Male       |      | Female |      |                   |        |                 |
|                    |        |      | Mean       | SD   | Mean   | SD   |                   |        |                 |
| Internal-bad       |        |      | 12.27      | 2.79 | 12.03  | 2.82 | Male              | Female | .2459*          |
| Global-bad         |        |      | 12.15      | 2.97 | 11.84  | 3.08 | Male              | Female | .3039*          |
| Composite-bad      |        |      | 36.48      | 7.25 | 35.89  | 7.71 | Male              | Female | .5932**         |
|                    |        |      |            |      |        |      |                   |        |                 |
|                    |        |      | Non-truant |      | Truant |      |                   |        |                 |
|                    |        |      | Mean       | SD   | Mean   | SD   |                   |        |                 |
| Internal-good      |        |      | 14.84      | 2.13 | 10.84  | 2.25 | Non-truant        | Truant | 4.002**         |
| Internal-bad       |        |      | 10.95      | 2.19 | 14.57  | 2.28 | Non-truant        | Truant | -3.6207**       |
| Stable-good        |        |      | 14.56      | 2.34 | 10.94  | 2.38 | Non-truant        | Truant | 3.6267**        |
| Stable-bad         |        |      | 10.80      | 2.63 | 14.50  | 2.28 | Non-truant        | Truant | -3.7039**       |
| Global-good        |        |      | 14.24      | 2.26 | 10.55  | 2.78 | Non-truant        | Truant | 3.6849**        |
| Global-bad         |        |      | 10.73      | 2.47 | 14.58  | 2.27 | Non-truant        | Truant | -3.8559**       |
| Composite-good     |        |      | 43.64      | 5.23 | 32.33  | 5.50 | Non-truant        | Truant | 11.3136**       |
| Composite-bad      |        |      | 32.48      | 5.20 | 43.66  | 5.32 | Non-truant        | Truant | -11.1805**      |

Table 44 displays the cell means and standard deviations for the subgroups formed by interactions. It was reported that the interaction of Form by truancy status was significant on the measure of stability for good outcomes, and the composite measure for good outcomes. Inspection of the interaction effect means for the subgroups formed by Form and truancy status showed that, among the subgroups, the Form 3 non-truants scored the highest on both measures (Stability:  $M = 15.05$ ,  $SD = 1.86$ ; Composite:  $M = 44.27$ ,  $SD = 4.92$ ); whereas the Form 3 truants scored the lowest (Stability:  $M = 10.40$ ,  $SD = 1.94$ ; Composite:  $M = 30.78$ ,  $SD = 5.47$ ) of all.

Table 44. Comparisons of means of attribution measures by Form-truancy subgroups

|                | Form 1               |                  | Form 2               |                  | Form 3               |                  |
|----------------|----------------------|------------------|----------------------|------------------|----------------------|------------------|
|                | Non-truant<br>(N=96) | Truant<br>(N=39) | Non-truant<br>(N=82) | Truant<br>(N=40) | Non-truant<br>(N=77) | Truant<br>(N=50) |
| Internal-Good  |                      |                  |                      |                  |                      |                  |
| Mean           | 14.6771              | 11.2051          | 14.8293              | 11.0250          | 15.0519              | 10.4000          |
| SD             | 2.19327              | 2.20262          | 2.30300              | 2.58683          | 1.85597              | 1.93781          |
| Composite-Good |                      |                  |                      |                  |                      |                  |
| Mean           | 43.8021              | 34.0256          | 42.8537              | 32.6000          | 44.2727              | 30.7800          |
| SD             | 5.18016              | 5.14775          | 5.52463              | 5.44812          | 4.91677              | 5.47085          |

#### Relations among Attributions, Family and School Experiences, and Truancy Status

Correlational analyses were performed to describe the relations among causal attributions and family and school experiences for the truants and non-truants. The relations among children's family and school experiences for each group had been examined to provide a description of the family and school social contexts within which truancy was likely to occur. To understand in greater complexity the patterns of causal attributions, the relations of children's attributions with their family and school experiences were examined. The relations, as shown by a series of two-tailed correlations conducted separately for each status group, are presented in Table 45.

The correlations of the family and school experience measures with the attribution measures indicate that, for the non-truants, stability for good outcomes was significantly related to index of problem behaviours ( $r = -.124$ ,  $p < .05$ ), and globality for bad outcomes was significantly related to relationships with classmates ( $r = -.165$ ,  $p < .01$ ). Both correlations were in the negative direction. For the truants, the composite measure

for bad outcomes was significantly related to relationships with parents ( $r = -.181$ ,  $p < .05$ ), relationships with classmates ( $r = -.208$ ,  $p < .05$ ), and globality for good outcomes was significantly related to problem behaviours ( $r = .204$ ,  $p < .01$ ). The first two correlations were negative; whereas the last one was in a positive direction.

However, caution should be exercised in the interpretation of the significant correlations. Among a set of correlations computed, some five percent of the correlations would be expected to be significant at the 0.05 level (Bryman & Cramer, 1998). This suggests that about four of the seventy-two correlations computed for each truancy status group would be expected to be significant at the 0.05 level. Furthermore, the significant correlations were admittedly too low to be considered as substantial, and could be a chance finding.

Table 45. Correlations of attribution measures and family and school experience measures by truancy status

|            | PSR    | SCR   | IPB    | IVS   | RWC     | RWT    | EOE   | EOM   | EOC   |
|------------|--------|-------|--------|-------|---------|--------|-------|-------|-------|
| Non-truant |        |       |        |       |         |        |       |       |       |
| IG         | -.046  | -.062 | .001   | -.042 | -.065   | -.059  | -.046 | -.033 | -.117 |
| IB         | -.030  | -.016 | .055   | .023  | .038    | .084   | .083  | -.026 | -.027 |
| SG         | -.060  | -.114 | -.124* | .077  | -.048   | -.008  | -.063 | .010  | -.045 |
| SB         | -.006  | .022  | -.071  | .002  | -.038   | .090   | .023  | -.084 | -.034 |
| GG         | -.049  | -.049 | .017   | .043  | -.090   | -.025  | -.056 | -.021 | -.105 |
| GB         | -.036  | -.019 | -.027  | -.012 | -.165** | -.048  | .048  | .016  | -.074 |
| CG         | -.067  | -.096 | -.048  | .036  | -.087   | -.039  | -.071 | -.018 | -.113 |
| CB         | -.033  | -.005 | -.026  | .005  | -.082   | .058   | .069  | -.046 | -.064 |
| Truant     |        |       |        |       |         |        |       |       |       |
| IG         | .040   | -.017 | .118   | -.018 | .119    | .018   | .106  | -.022 | -.003 |
| IB         | -.112  | .061  | .145   | .059  | .000    | -.048  | .086  | .026  | .092  |
| SG         | -.053  | -.068 | .035   | -.081 | -.125   | -.137  | .036  | -.038 | -.022 |
| SB         | -.167  | .029  | .048   | .038  | -.123   | -.134  | .071  | -.093 | -.040 |
| GG         | -.156  | .118  | .204** | -.040 | -.082   | -.208* | -.077 | -.056 | -.052 |
| GB         | -.143  | -.054 | .112   | -.017 | .006    | -.075  | .059  | .070  | -.063 |
| CG         | -.086  | .022  | .166   | -.063 | -.047   | -.157  | .020  | -.054 | -.037 |
| CB         | -.181* | .015  | .130   | .034  | -.050   | -.110  | .093  | .001  | -.005 |

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

Note:

PCR - Relationships with parents  
 IPB - Index of problem behaviours  
 RWC - Relationships with classmates  
 EOE - Evaluation of English  
 EOC - Evaluation of Chinese  
 IG - Internal-Good  
 SG - Stable-Good  
 GG - Global-Good  
 CG - Composite-Good

SCR - Relationships with siblings  
 IVS - Index of perceived value of schooling  
 RWT - Relationships with teachers  
 EOM - Evaluation of mathematics  
 IB - Internal-Bad  
 SB - Stable-Bad  
 GB - Global-Bad  
 CB - Composite-Bad

## Summary

To seek answers to the research questions posed, the truants and non-truants were compared with respect to their family and school experiences, their orientation of locus of control, and their patterns of causal attribution. The relations among these variables were also examined separately for truants and non-truants to determine how the relations vary within each group. The results are summarized below.

### Family and school experiences

Results indicate that truancy was significantly related to children's family and school experiences. The truants and non-truants were found to differ significantly in their scores on the set of family and school experience measures. As compared to the non-truants, the truants were more likely to have poor relationships with teachers, less likely to perceive the instrumental value of schooling, and more likely to engage in problem behaviour. However, they appeared to have somewhat higher self-evaluation in their performance in English and Mathematics.

The intercorrelations of the family and school experience measures separately for truants and non-truants indicate that, for both truants and non-truants, relationships with teachers, perceived value of schooling and problem behaviour were interrelated. For both truants and non-truants, evaluation of English was positively related to evaluation of Chinese; whereas evaluation of Mathematics was positively related to perceived value of schooling and evaluation of Chinese. Furthermore, it was interesting to observe that perceived value of schooling was positively related to evaluation of Mathematics in both groups, but the relationships of perceived value of schooling with evaluation of English and Chinese were found only in the non-truants.

Children in different Forms were found to differ with respect to relationships with parents, relationships with classmates, and problem behaviour. Specifically, The Form 3 students were more likely than those in the other Forms to have poor relationships with parents and classmates, and to engage in problem behaviour. No significant gender differences were found for these measures, suggesting that older children of both gender were more likely to have problem behaviour and to experience relationship difficulties



both in family and school. However, gender differences were found in evaluation of Mathematics and Chinese. Specifically, boys tended to have a higher evaluation of their ability in Mathematics; whereas girls tended to a higher evaluation in Chinese.

Interaction effects of Form and gender further revealed subgroup differences in relationships with parents, relationships with siblings, and evaluation of English and Mathematics. The subgroup means showed that the Form 3 girls scored the lowest on relationships with parents and siblings, indicating that the older girls were most likely to experience relationship problems in family. The Form 3 girls were also found to score the lowest among all subgroups on performance in Mathematics, which suggests that gender differences in Mathematics ability tend to become more pronounced as children get older. As for English, the Form 1 girls had the lowest evaluation of all subgroups.

Nevertheless, no significant interaction effects were observed for truancy status with Form and gender. Thus, the truants, regardless of Form and gender, are typically those school children who relate poorly with teachers, disbelieve in the value of schooling, and engage in problem behaviour in school.

### Locus of control

The truants were found to score greater externality of locus of control than the non-truants. However, the observed difference was a little short of statistical significance.

For both truants and non-truants, locus of control was negatively related to relationships with parents, relationships with siblings, relationships with teachers, and perceived value of schooling, but positively related to problem behaviour. For the non-truants, locus of control was also negatively related to relationships with classmates, as well as evaluation of Mathematics and Chinese. For the truants, these relationships were in the same direction but not significant. These relationships were not observed in the truant group because of their perception of a higher ability to control over such life events.

The study of the effect of Form on locus of control showed that older children

tended to be more external in orientation than younger children. Form 3 students were found to score the highest externality of control than those in the lower Forms. No significant gender difference was found, but the interaction effect of Form and gender showed that the Form 3 girls were the most external of all subgroups.

In sum, the absence of an interaction effect among truancy status, Form and gender indicates that the truants tend to be more external in orientation of locus of control than the non-truants. This appears to be generally true for truants of different ages and gender although the observed difference was not statistically significant.

### *Patterns of attribution*

Causal attributions were significantly related to truancy. The truants and non-truants differed significantly in their scores on the set of 8 attribution measures. Comparisons on the dimension measures and composite measures for each type of outcomes showed that the truants were more likely than the non-truants to explain good outcomes or success as due to external, unstable and specific factors, and attribute bad outcomes or failures to internal, stable and global factors. On the other hand, a reverse pattern was observed in the non-truant group. That is, the non-truants were more likely to attribute good outcomes or success to internal, stable and global factors, and to explain bad outcomes or failures as due to external, unstable and specific factors.

Evaluation of Form effects in the present study showed that older children were more likely to attribute bad events to internal, stable and global factors. The interaction effects of Form and truancy status indicate that the Form 3 truants were the least likely of all subgroups to attribute good events to internal, stable and global factors; whereas the Form 3 non-truants were the most likely to attribute good events to these factors.

Results indicate that children's family and school experiences are related to their causal attributions. However, only a handful of the correlations were significant. These relations also appear to vary within each truancy status group. More specifically, for truants, the composite score for bad events was negatively related to relationships with parents; and the score of globality for good outcomes was negatively related to relationships with teachers and positively to problem behaviour. Among non-truants, the

score of stability for good outcomes was negatively related to problem behaviour; and the score of globality for bad outcomes was negatively related to relationships with classmates. As pointed out earlier, the low but significant correlations could well be attributed to chance alone.

## CHAPTER VII

### DISCUSSION AND CONCLUSIONS

This thesis is based on the premise that truancy in Hong Kong has its roots in school adjustment difficulties which prevent the adolescents from successfully bridging the transition from primary school to secondary school. A review of literature suggests that family and school experiences, locus of control, and attributional style are related to truancy.

The overall concern of the thesis was to understand more fully the patterns of locus of control and causal attributions of secondary school truants and non-truants in Hong Kong. The key research question was how truants and non-truants differ in these patterns in relation to family and school experiences and how these relations vary within each group. Clearly, the relation among truancy, locus of control, attributions, and their family and school experiences is a complex one. In view of this, the present study is conceived as an attempt leading to initial evidence for a linkages among truancy status, locus of control, family and school experiences and children's attributions for school events.

#### PATTERNS OF ATTRIBUTION

Attribution theory (Heider, 1958; Jones and Davis, 1965; Kelley, 1967) is concerned with the individual's perceptions of the causes of events rather than with actual or true causes. The internal-external dimension differentiates between causes that stem from within the individual versus causes that stem from environmental and situational factors. Research work on attributions has demonstrated the importance of the locus of attributions for understanding an individual's self-concept. Numerous investigations have demonstrated that most adults make internal attributions for success and external attributions for failure. This pattern of attributions, which is most typical among adults, is called a "self-serving" or self-protective bias that helps to maintain self-esteem (e.g., Miller & Ross, 1975; Zuckerman 1979). A contrasting pattern of attributions, which involves internal attributions for failure and external attributions for success, is referred to as a "non-self-serving" bias (e.g., Asher, Parkhurst, Hymel, & Williams, 1990). Individuals with this pattern of attributions blame themselves for failures and they fail to take credit for successes (e.g., Anderson, Horowitz, & French, 1983; Sweeney,

Anderson, & Bailey, 1986). The consequence is likely to be a decrease in self-esteem and heightened feelings of distress (e.g., Kukla, 1972; Weiner & Kukla, 1970; Weiner & Potepan, 1970; Wortman & Brehm, 1975). The importance of the locus of attributions is that the “self-serving” pattern of attributions tends to be associated with nondistressed adults; whereas the “non-self-serving” pattern of attributions tends to be associated with distressed adults (Asher, Parkhurst, Hymel, & Williams, 1990; Miller & Ross, 1975; Zuckerman, 1979).

The concept of attributional style was introduced by the Seligman-Peterson group in connection with the reformulated theory of learned helplessness (Abramson, Seligman, & Teasdale, 1978). As further defined, attributional style consists of three attributional dimensions. Specifically, the reformulation added to the internal-external dimension two other dimensions: stability versus instability, and globality versus specificity. The stable-unstable dimension distinguishes between causes that are long-lasting versus those that are transient. Attributions to stable causes should produce passivity and helplessness deficits with greater generality across time than attributions to unstable causes. The global-specific dimension refers to the distinction between causes that occur across situations and those that are more unique to the situation. The implication of attributing to global or specific causes is that deficits attributed to global causes are more likely to generalize across outcome and situation than those attributed to specific causes. Specific causes are more circumscribed and hence affect fewer outcomes and situations.

The application of the three attributional dimensions to positive and negative events has led to a distinction between two patterns of attribution: the first pattern is characterized by a tendency to explain positive events as due to internal, stable, and global factors, and a tendency to explain negative events as due to external, unstable and specific factors; and the other, which is the reverse of the first pattern, is characterized by a tendency to explain negative events as due to internal, stable, and global factors, and a tendency to explain positive events as due to external, unstable and specific factors. The first pattern is referred to as an optimistic (positive) style; whereas the second pattern is called a pessimistic (negative) style (Peterson & Barrett, 1987; Peterson & Seligman, 1984). People who make internal, stable, and global attributions for negative events; external, unstable, and specific attributions for positive events; or

both are said (e.g., Alloy, Abramson, Metalsky, & Hartlage, 1988; Seligman, Abramson, Semmel, & von Baeyer, 1979) to have an undesirable attributional style.

Multivariate analysis of variance in the present study showed that the truants scored significantly higher on the composite measure as well as each of the three dimensional measures of bad outcomes than the non-truants. The result also showed that the truants scored significantly lower on the composite measure as well as each of the three dimension measures of good outcomes than the non-truants. The attributional pattern of the non-truants was in the reverse direction. Analyses with the sample divided into three groups (i.e. the non-truant group and the "truant" and the "non-attender" subgroups) showed similar results. Specifically, significant differences were found between the non-truants and each truant subgroup on all measures of attribution for both types of outcomes. However, the two truant subgroups were not significantly different in any of the attribution measures. These patterns of findings indicate that the truants would attribute bad events as due to internal, stable and global causes and would attribute good events as due to external, unstable and specific causes. On the other hand, the non-truants would attribute bad events as due to external, unstable and specific causes and would attribute good events as due to internal, stable and global causes.

The patterns concerning the locus of attributions for the truants and non-truants in the present sample can be interpreted within a conceptual framework adapted from attributional research with adults. The non-truants exhibit a "self-serving" pattern of attributions; whereas the truants exhibit a "non-self-serving" pattern. The non-truants take credit for positive outcomes or successes and blame others for negative outcomes or failures; whereas the truants blame themselves for negative outcomes or failures and fail to take credit for positive outcomes or successes. The present findings also suggest that the attributional patterns found in prior studies for distressed versus nondistressed adults are also applicable to adolescent truants and non-truants in Hong Kong. That is, the association between the locus of attributions and distress found in adults suggests the possibility that the truants are more likely than the non-truants to feel distressful about their social experiences. It is important to also note that the truants' tendency to blame themselves for negative outcomes in the present study could be reviewed as consistent with the attributional pattern displayed by low-status children in three other studies. Specifically, low-status children were found to exhibit a "non-self-serving"

pattern of attributions which involved internal attributions for social failure and external attributions for social success (Ames, Ames, & Garrison, 1977; Goetz & Dweck, 1980; Hymel, Freignang, Franke, Both, Bream, & Bory, 1983).

The findings suggest that the truants may have difficulties in coping with both positive and negative events. When failure or other negative events occur, the truants would react to it with an attributional pattern of acquiescence and passivity, and a feeling of lack of control over these events. When bad events occur, the truants who have difficulty adjusting to those events are likely to internalize the causes of those events. Apparently, the truants are those adolescents who have difficulty adjusting to the demand of the school environment, and are likely to attribute the cause to themselves, and to assume that they themselves are to blame.

The truants have difficulties not only in dealing with bad events, but good events as well. When confronted with success or other positive events, the truants are likely to believe that the causes lie outside themselves, and that they had nothing to do with that outcome. As a result of believing that positive events are due to or controlled by external forces, the truants have a lower expectancy for future success. Weiner (1979) states that the stability dimension will have an influence on the expectation of future success. Thus, ascription of a good outcome to unstable causes will decrease one's expectancy that the outcome will happen again. This interpretation is in line with the theoretical argument that those adolescents who have difficulty adjusting to the school feel that they have lost control of their own lives. By attributing good events to external forces, they also contribute to a lowering of their own self-esteem. It may be this self-defeating behaviour that acts as an impediment to successful adjustment to school for the truants.

The findings concerning the locus of attribution for positive outcomes also may be explained by the expectancy concept which constitutes a central part of Bandura's theory of self efficacy (1977). Bandura (1977: p. 79) proposes two kinds of expectancies: outcome and efficacy expectancies. Whereas an outcome expectancy is the person's estimate that a given behaviour will lead to certain outcomes, an efficacy expectancy constitutes the person's "... conviction that one successfully can execute the behaviour required to produce the outcomes". Accordingly, three groups of

individuals are discernible: high outcome expectancy and high efficacy expectancy, high outcome expectancy but low efficacy expectancy, and low outcome expectancy and low efficacy expectancy. In this classification, the non-truants in this study are more likely to be the first group who may believe that certain acts will produce certain outcomes, and that they are able to perform those actions if they try harder. The truants, on the other hand, were more likely to be the last group who may not believe that certain acts will produce certain outcomes, and that they are unable to perform those actions.

Within the framework of the reformulated theory of learned helplessness (Abramson, Seligman, & Teasdale, 1978), the truants are individuals with a pessimistic attributional style; whereas the non-truants are individuals with an optimistic style. It has been demonstrated that a pessimistic attributional style is not only associated with loss of self-esteem (e.g., Brewin & Shapiro, 1984; Devins, 1982; Girodo, Dotzenroth, & Stein, 1981; McFarland & Ross, 1982; Rothwell & Williams, 1983; Weiner, 1979), but there is ample evidence to indicate that it is also closely related to depression (e.g., Arkin, Appleman, & Burger, 1980; Klein et al., 1976; Kuiper, 1978; Major, Mueller, & Hildebrandt, 1985; Peterson & Seligman, 1984; Raps, Peterson, Reinhart, Abramson, & Seligman, 1982; Rizley, 1978; Seligman et al., 1979; Sweeney, Anderson, & Bailey, 1986). These findings led to the classification of the pessimistic attributional style into two categories called "negative depressogenic" and "positive depressogenic". The negative category represents the degree of internality, stability, and globality of attributions for negative events. The positive category represents the degree of externality, instability, and specificity of attributions for positive events. Both categories are related to depression, but a review of over 100 studies undertaken by Sweeney et al. (1986) showed that the relation between depression and a negative depressogenic attributional style was stronger than the relation between depression and a positive depressogenic attributional style. It can be seen that the bad events may be particularly uncontrollable and stressful to the school truants, and may have a more negative impact on their well-being. They are most likely to be affected by these events simply because they are internally-oriented, alert to environmental cues, and attribute events to stable and global causes. If the school situation is perceived as one where controllability is absent, it is highly likely that the truants are experiencing depression and feelings of helplessness. Indeed, research work with internally-oriented individuals found that these people manifested depressive attributional styles in response to uncontrollable stressful



events. These people are likely to be depressed and make “negative self-attributions” that undermine motivations and / or disrupt on-going performance by increasing anxiety, evaluation, self-concern, etc.” (Ickes and Layden, 1976: p. 146).

Given that both truants and non-truants are low achievers, the truants demonstrate a maladaptive attributional pattern but the non-truants demonstrate an adaptive attributional pattern that is associated with low achievers. Studies in Hong Kong have reported that low achievers tend to make more external attribution in failure and less internal attributions in success (Lau & Chan, 2001; Hau, 1992; Hau & Salili, 1990). This pattern of self-serving attributions is also noted as a typical pattern of attributions not only for the Chinese adolescents in Hong Kong (Hau & Salili, 1990; Hau & Salili, 1991; Salili & Mak, 1988), but also one that is typically found in most studies involving North American majority groups (Bond, Leung, & Wan, 1982). As success is usually attributed to one’s effort, these findings are seen to reflect strong moral responsibility for achievement through studying and working hard in the Chinese culture.

Motivational variables are noted as important factors in discriminating low achievers and high achievers. For example, low achievers are found to have a weaker learning orientation (Hau, 1992; Hau & Salili, 1990), low attainment value in learning, and deficiencies in using effective learning strategies (Lau & Chan, 2001). As to be discussed later, social experiences and motivational factors may explain why the truants and non-truants have different perceptions about the causes of events.

### LOCUS OF CONTROL

Locus of control is a construct measuring the degree to which one feels in control over one’s life events (Rotter, 1966). Internality and externality of locus of control represent the two extremes of belief about the locus of reinforcement. Individuals who are internal in orientation believe that rewards are contingent upon their own behaviour, and that they are in control of their own destiny. On the contrary, those with an external orientation do not anticipate such a contingency between their actions and events in their life, or believe that events in their life are not under their control, but under the control of outside forces.

Review of Western literature on locus of control suggests that external control may be an important dimension for understanding maladaptive behaviour in adolescence. Typically, externality of locus of control has been found to be associated with low academic achievement (e.g., Coleman et al., 1966; McGhee & Crandall, 1968; Walden & Ramey, 1983; Garner & Cole, 1986). Only few studies have paid attention to the relationship between locus of control and school truancy. However, the results generally show that externality of locus of control is related to truancy, but the relationship is not substantial (e.g., Arangio, 1981; Engelberg, 1981; LaPlace, 1976; McCarthy, 1974).

The results of analysis of variance in the present study show similar results. The truants and non-truants do not differ significantly in externality of locus of control. However, the difference is only a little short of significance ( $p = .09$ ). In view of the lack of statistical significance, the observed but small difference may be interpreted as suggesting that both truants and non-truants are externally oriented. The results of pairwise comparison with the sample divided into three groups (i.e. the non-truant group and the "truant" and the "non-attender" subgroups) also showed that none of the pairs of mean differences in locus of control was statistically significant. This interpretation echoes the general observation that the Chinese adolescents in Hong Kong are external in locus of control (Hsieh, Shybut, & Lotsof, 1969; Leung, Salili, & Baber, 1986; Mak, 1988). As repeatedly pointed out by these investigators, this belief orientation has its roots in the Chinese belief in fatalism (Leung, Salili, & Baber, 1986) and the traditional emphasis on the maintenance of group goals and affiliation (Hsieh, Shybut, & Lotsof, 1969; Mak, 1988), as well as the child-rearing practices of the Chinese parents (e.g., Scott & Phelan, 1969; Hsieh et al., 1969) who typically use such techniques as rejection, deprivation of privileges, and punishment to ensure children's conformity to their wishes (e.g., Ho, 1981; Katkovsky, Crandall & Good, 1967; MacDonald, Jr. 1971).

Despite falling short of significance, however, between-group variation in locus of control indicates that the truants are more externally oriented than the non-truants. Compared with the non-truants, the truant group scored higher externality of locus of control. The results of pairwise comparison further revealed that the "non-attender" subgroup was more external in orientation than the "truant" subgroup, suggesting that externality of control is associated with level of truancy. These findings suggest that the truants are likely to have little feelings that they themselves control their own fate, but the non-truants are more likely to understand that outcomes are not

entirely out of their own control. It appears that the truants are less capable of dealing with their problems adequately, more likely to give an unfavourable evaluation of their social environment, and less likely to perceive themselves to be in control. This is a reasonable interpretation in view of the finding of Leung et al. (1986), which showed that externality in orientation of control was significantly related to adolescent problems and poor family environment although the relationship was only low to moderate. The other findings of the present study, to be discussed later, also lend support to this interpretation. Given the fact that the truants find themselves in a school environment in which they experience relatively little reinforcement both in terms of academic achievement and interpersonal relationships, it is not surprising that they tend to feel that the environment is not under their control. They may become keenly aware of others' negative sentiments toward them and feel distressed about their relative lack of future prospect and abundance of negative relationships.

Moreover, support for this interpretation is provided by the findings from the attribution measure. That is, the truants were more likely than the non-truants to explain their academic and social success as due to factors external to themselves, and not to feel confident in their ability to control their own lives. This is in effect an abdication of responsibility as student, but at the same time may represent a normal response to disruptive, stressful conditions. The manifestation of this attitude may have been due to the lack of anticipation of a contingency between their actions and reinforcements in the school environment and thus the lack of motivation to strive to succeed in school.

#### FAMILY AND SCHOOL EXPERIENCES, LOCUS OF CONTROL, AND ATTRIBUTIONS

The intercorrelations of the family and school experience measures indicate that, for both truants and non-truants, relationships with teachers, perceived value of schooling, and problem behaviour are interrelated in an expected direction. The poorer the relationships with teachers, the lower the perceived value of schooling, and the more frequent or serious problem behaviours will be. These findings further suggest that negative experiences in school provide the context for truancy to occur. Results show that the truants reported poorer relations with teachers, a tendency of disbelieving in the value of schooling, and more frequent involvement in problem behaviour. The significant differences found between the "non-attender " subgroup and the "truant"

subgroup in these measures further suggest that school factors are associated with the frequency or seriousness of truanting behaviour.

Perceived value of schooling may be related to the motive to seek success in achievement tasks. A school child who perceives low value is more likely than one who perceived high value to expect that engaging in achievement activities will lead to failure. Relationships with teachers may be related to the motive to seek success in affiliation tasks. A student with poor relations with teachers is more likely than one with good relations to expect that engaging in social activities will lead to failure. This study also showed that the truants suffer greater social disruption and are more likely to exhibit problem behaviours in school than the non-truants. Indeed, problem behaviours and truancy may be manifestations of the internal conflicts faced by adolescents who do not adapt to the demands of the school environment as a result of irrational beliefs.

Given the exposure to negative experiences in school, one may expect that the truants would have a lower evaluation of their ability in academic performance. However, the results turn out to be on the contrary. This is plausible because academic self-evaluation in the present study involves a comparison of the truants' academic performance with their classmates serving as a standard, and the classmates are also academic low achievers. However, that the truants evaluate themselves more favourably than the non-truants in terms of academic ability is a particularly intriguing in view of their negative pattern of attribution. That is, they do not feel themselves to be in control of positive outcomes and blame themselves for failure despite their perception that their academic ability is higher than their class cohorts. This finding may be seen as providing a strong support for the importance of attributional style in the explanation of school truancy.

Other results indicate that, for both truants and non-truants, the more external in orientation of control, the poorer the relationships with teachers, the lower the perceived value of schooling, and the more frequent or serious problem behaviour will be. These findings lend support to those of Leung et al. (1986), showing that a negative evaluation of the school environment may contribute to a sense of losing control.

In relating the attribution measures to the family and school experience measures,

different relationship patterns were identified for the truants and non-truants. The findings further suggest that family and school experiences and attributions have different implications for the truants and non-truants. The truants may feel particularly distressed about their relationships with parents and feel bad about it partly because they interpret the relationships in a nonadaptive manner. In other words, they fail to buffer them from negative conclusions about the self, and blame themselves for academic failure and relationship failure both in family and school. The observed relationships of attribution of good events to global factors with relationships with teachers and problem behaviour also suggest that the more they attribute good events to global causes, they more likely they will be affected by poor relationships with teachers but less likely to be affected by problem behaviour. A plausible explanation is that, even though the truants believe that certain acts will produce good outcomes, the reality is that those actions do not work to produce good relations with their teachers. Problem behaviour may represent a maladaptive reaction to their frustrations, and an expression of resentment to their teachers. The non-truants are affected by a different reality. For the non-truants, the more they believe that good events are due to stable causes, the less likely they will be affected by problem behaviour. Their tendency to attribute good outcomes to stable factors may explain why they are less likely than the truants to be engaged in problem behaviour. On the other hand, the more they attribute bad events to global factors, the more likely they will be affected by poor relationships with classmates. In sum, one might conclude that the truants' pattern of attribution is likely to be affected by their distressful relationships with parents and teachers; and the differential influences of these variables on the truants and non-truants may explain at least in part, the differences in their attributional style. However, one needs to be cautious in drawing this conclusion in view of the possibility that the significant correlations observed could well be attributed to chance alone.

#### FORM, GENDER, LOCUS OF CONTROL, AND ATTRIBUTIONS

Findings pertaining to the relationships between Form and gender and locus of control indicate that older children tend to be more external in orientation than younger children, and this relationship is particularly true for older girls. These finding suggest that externality may be related to increased exposure to distressful life experiences due to advancing age which reinforce the belief that outcomes are not within one's control,

and this relationship is more pronounced for girls.

These findings allude to the importance of future research to examine locus of control for girls of different age groups in Hong Kong. Existing research of the Hong Kong adolescents do not seem to have noted that there are significant gender differences. The general observation that the Chinese adolescents in Hong Kong are external in locus of control seems to apply to both gender groups (Hsieh, Shybut, & Lotsof, 1969; Leung, Salili, & Baber, 1986; Mak, 1988). More specifically, future studies to examine the effect of life experiences of girls of different ages on their control orientation will be particularly enlightening in view of the present findings which show that social experiences and locus of control are related. For example, the present findings may be interpreted as reflecting gender differences in socialization. Specifically, the Chinese parents in Hong Kong may be likely to impose more strict measures on their daughters to ensure that their daughters are well-disciplined and behaved, and conforming to cultural expectations (e.g., Ho, 1981). As pointed out earlier, the use of such techniques rejection, deprivation of privileges, and punishment is related to externality of locus of control (e.g., Katkovsky, Crandall & Good, 1967; MacDonald, Jr. 1971). In future studies of the effect of life experiences of girls on their control orientation, different religious and family backgrounds may have to be taken into account. The present study has shown that the girls are more likely to come from large families, particularly broken families, and families in which the father is unemployed.

Evaluation of Form effects in the present study also show that older children are more likely to attribute bad events to internal, stable and global factors. This finding likely reflects children's growing awareness with advancing age of the repetitive nature of bad outcomes. That is, older children, who have been experiencing repeated failure in family and school, may be better able to take into account the outcomes of bad events that often depend on one's own actions. Furthermore, the interaction effects of Form and truancy status further suggest that the attribution pattern for good events differentiates the older truants and non-truants. Results indicate that the Form 3 truants were the least likely of all subgroups to attribute good events to internal, stable and global factors; whereas the Form 3 non-truants were the most likely to attribute good events to these factors.

Research in attribution has employed age or grade level as proxy variables for the study of developmental differences in attribution under success. The research reported in international literature show different results, but most of the findings suggest that older children make more internal attribution for success, and younger children make more external attribution (e.g., Wigfield, 1988). The findings indicating developmental differences in attribution under success are replicated in most studies on Chinese adolescents in Hong Kong (Mak, 1988; Hau, 1992; Hau & Salili, 1990). The results of the present study seem to suggest a similar pattern for the non-truants; that is, the older a non-truant, the more likely he/she will attribute good events or successes to internal factors. The reverse appears to be true with the truants; that is, the older a truant, the less likely he/she will attribute good events or successes to internal factors. Thus, even though older children may be more self-focused (Wigfield, 1988) or cognitively more capable than younger children (Mak, 1988; Hau, 1992), the older truants may lack the learning orientation which has been shown to differentiate the attribution pattern of older children from that of the younger children (Hau & Salili, 1990).

No research in Hong Kong has examined developmental differences in attribution under failure. The findings of the present study suggest that older children are more likely to attribute bad events or failures to internal, stable and global factors. Given that the present sample consists of low achievers, it is likely that this pattern of attribution applies more to low achievers, particularly the truants. Nevertheless, these results provide evidence that attributional style is an important area for research with different age groups and levels of achievement. The differences in attribution between the truants and non-truants in the Form 3 class also point to the importance of further attribution research to compare truants and non-truants of different age groups.

Consistent with the findings of some studies, both international and in Hong Kong (e.g., Bar-Tal, Goldberg, & Knaani, 1984; Chandler & Shama, 1983; Clarkson & Leder, 1984; Hau, 1992; Peterson, 1982; Robins, 1989; Wigfield, 1988; the present study revealed no differences in the patterns of boys and girls in attributional style for success and failure. However, findings of gender differences in attribution are far from conclusive. Other studies (e.g., Dweck, Davidson, Nelson, & Euna, 1978; Dweck & Goetz, 1978; Dweck & Reppucci, 1973; Ickes & Layden, 1976; Mak, 1988) generally show that girls tend to attribute failure more to ability which is an internal stable factor,

whereas boys tend to attribute failure to variable factors. As for attributions under success, boys tend to attribute more to effort than girls (e.g., Dweck & Reppucci, 1973). However, the findings reported in one of the studies in Hong Kong (Mak, 1988) suggest that girls tend to attribute their success to effort than boys, whereas boys tend to attribute their failure to bad luck.

In view of the inconsistency of findings, research is needed to further examine gender differences in causal attributions for the Chinese adolescents in Hong Kong. Gender differences for the underachievers and school truants will be particularly important for the design of programs and interventions for different subgroups of children experiencing difficulties in development.

### IMPLICATIONS OF THE RESEARCH FINDINGS

It has been shown that the truants interpret negative events in a way that fails to buffer them from negative conclusions about the self. From the manner in which truants interpret school events, the truants appear to be less adaptive than the non-truants to their school environment. Interpretation of bad events as due to stable and global causes suggests that the truants are aware of their skill deficits in both areas (achievement and affiliation) and thus take the blame for these failures. Clearly, admitting failure is more difficult for the truants. However, they may be more willing to acknowledge, or aware of, their difficulties than the non-truants. As a result, they may develop a self-protective, defensive way of thinking about those problems in order to cope with their painful feelings. They may have a greater need than the non-truants to avoid blaming themselves when they experience failures and social distress. External attribution of good events to unstable and specific factors also suggests that the truants have a greater need than the non-truants to appreciate themselves when they experience success. This demonstrates that an adaptive attributional style may be required that facilitates enjoyment of academic and social successes and adequate coping with academic and social failures. For example, adolescents must be able to recognize their own role in producing their social successes in order to be satisfied with the different aspects of school life.

The non-truants' tendency to explain positive outcomes as due to internal, stable and



global factors suggests that they are much better adjusted than the truants because they reason in relatively mature ways. However, they are not taking the blame for difficulties, but identify external, unstable and specific factors as a source of their problems. Although this pattern of attribution may allow the non-truants to interpret bad experiences in a manner that is relatively nonthreatening to their self-esteem, it also suggests that they may be uncertain as to why they are experiencing problems given the fact that they have better relationships with others, and are therefore less likely to receive direct feedback from others regarding their academic and social standing. Thus, when faced with an attribution task, the non-truants may conclude that the causes of school events are reasonable. This conclusion may also prevent them from acknowledging their own role in the creation of their difficulties.

This information can be used to design appropriate interventions for school children experiencing difficulties in development. The results call attention to the necessity of offering students with a maladaptive attributional style some sort of attributional remedial programmes.

Bar-Tal (1978) and Weiner (1974) have suggested establishing programs that "induce appropriate attributions" in children, and programs which train teachers to become aware of the attributional process and which teaches them to effectively utilize the attributional process to improve the academic performance of their students. For example, Dweck (1975), in her work in the area of learned helplessness, has developed an attribution retraining program in which learned helpless children are taught to attribute failure to a lack of effort through feedback given in training sessions. Empirical evidence has indicated that reattribution of failure to the lack of effort helps to enhance students' ability to learn and help them to improve their academic performance (Craske, 1988; Dweck, 1975; Perry and Penner, 1990; Van Overvalle, 1989). As can be seen, these programs focuses almost exclusively on attributional retraining as a cognitive intervention for improving reactions to academic failure, but improvement in academic performance may not necessarily solve the problem of school truancy. The present thesis has demonstrated that many of the underachievers are not truants and have an adaptive attributional style.

A number of approaches are said to have had some success in increasing school

attendance. The most common approaches include counseling programs, peer reinforcement, supportive instruction, remediation of basic academic skills, and work study programs. Another approach is the alternative school. In this approach, traditional class attendance requirements are modified to permit students' programs to be based on individual needs and interests. These programs address the adolescent's need to find an identity by encouraging students to more actively participate in a hands-on learning process and work-role experimentation. However, Karweit (1973) doubt that any short-term "stop-gap" measure could increase attendance.

It appears that a more effective means to combat school truancy would call for changing the maladaptive cognitive patterns by shifting the external locus of students to a more internal orientation. The coping mechanisms of those with external locus of controls may be inadequate. Parkes (1984) found that the coping patterns utilized by those with internal locus of control were significantly more adaptive (relative to cognitive appraisal) than that of those with an external orientation. This finding implies that locus of control is an important mediating variable in determining the way in which individuals cope with stressful situations. Thus, therapy or counseling to help students regain control of their own lives may have significant implications for future adjustment and for general healthy mental status. This is particularly relevant to Hong Kong where the adolescents have to face the stress-inducing practices and distressing experiences of an overtly competitive education and school system.

As for treatment of truants, the focus should be on cognitive restructuring (Hepworth, Rooney and Larsen, 1997). The findings suggest that the intervention should aim at disputing the irrational beliefs which are linked to truanting behaviors. According to Hepworth, Rooney and Larsen (1997), there are 5 steps in cognitive restructuring:

1. Assist the client to accept his own emotions and statements by presenting the rationale of the therapy and demonstrating it with common life experiences.
2. Assist the client in identifying dysfunctional beliefs by helping the client to explore how the feelings and beliefs cause his difficulties.
3. Assist the client to identify situations that causes dysfunctional cognitions by helping the client to explore the specific events which trigger off the beliefs and by

understanding the clients' coping strategies.

4. Assist the client to have self-defeating cognitions by trying to equip the client in coping with dysfunctional self-statements. This stage aims at disputing the irrational beliefs and develops new coping strategies.
5. Assist the client in rewarding themselves for practising new coping strategies. Use behavioral techniques to reinforce the new coping strategies.

Cognitive restructuring may be the most appropriate intervention for the truants in view of the empirical evidence to support the notion that attribution style is significant for the coping process (e.g., Arkin, Appleman, and Burger, 1980; Klein et al., 1976; Kuiper, 1978; Major, Mueller, and Hildebrandt, 1985; Peterson and Seligman, 1984; Raps, Peterson, Reinhard, Abramson, and Seligman, 1982; Rizley, 1978; Seligman et al., 1979; Sweeney, Anderson, and Bailey, 1986). Specifically, these investigators have pointed out that a maladaptive attributional style is closely related to depression which is one possible result when a person does not properly cope with stress. Other investigators go even further in suggesting what can be considered as satisfactory coping outcomes. Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen (1986: p. 997) reported that satisfactory coping outcomes "were characterized by higher levels of planful problemsolving ... and positive reappraisal". The two coping strategies can be interpreted as the mobilization of internal coping resources which depends on personal confidence. The present study has demonstrated that the truants are likely to be individuals who may lack the confidence to cope by mobilizing these resources. These coping strategies are particularly relevant for the Chinese adolescents experiencing developmental difficulties who make non-self-serving attributions, even though accepting responsibility for failure and humility may be seen as favourable behaviours in the Chinese culture. The need to seek help is also clear despite the Chinese tradition toward reluctance to ask for help and support (Lee, 1991). Thus the implication of the research findings in the present thesis suggests that it is feasible to induce the desirable coping strategies indirectly through attributional style. More specifically, the internal coping resources of the truants may be inadequate, suggesting the need to seek others' support. Thus, it is important not only to influence students' attributional style through learning and instruction but also to cultivate their willingness to seek help.

The research findings of the present thesis may also provide the researcher or

clinician with clues as to which children will be most likely to benefit from intervention so that school truancy can be prevented. For example, the findings indicate that children who are unhappy with their family and school situation are likely to become truants. Presumably, these children are more motivated than their peers to learn new social skills that may improve their relationships. In addition, information about children's family and school experiences may enhance our understanding of the processes underlying children's difficulties. The truants' difficulties with parents and teachers as well as their failure to perceive the value of schooling suggest the need to improve stress-inducing conditions in both family and school.

The over-emphasis of the moralistic orientation of the Chinese culture, which demands conformity to the demands of parents, to yield unquestioned obedience to them, and to achieve well, has imposed tremendous pressures on children. Punitive measures for bad or unexpected behaviours and the use of shame (Ho, 1981) will bring about conflicts and poor parent-child relations, and the guilt and self-blame for failure in children (Leung, Salili, & Baber, 1986). To reduce the negative impact on children, parents must be educated to be more tolerant of children's poor performance and failure to carry out their obligations. On the other hand, changes must be made to the education and school system to further release the pressures on school children. More specifically, changes must be made to the elitist approach to education and the demanding curriculum designed to make sure that children would survive and excel in academic competitions. Within the Chinese culture, the pressure to achieve falls more heavily on older children in the family because they must set an example for their siblings in performing well. The present thesis also has demonstrated that, in comparison with the lower Forms, students in Form 3 are most affected by negative experiences in school and more likely to become truants. Furthermore, the rules and regulations in school, which serves as a means to ensure the development of moral character in children, must be enforced with some measures of flexibility to avoid students getting into unnecessary conflicts with their teachers. The results of the present thesis seem to suggest that students with a maladaptive pattern of attribution may run into conflict with teachers. The differences between students' attributions and teachers' expectations could detrimentally affect teacher-student interactions and, as a result, may interfere with the learning process.

In Hong Kong, no specific measures have been introduced to deal with the school truancy problem. However, a number of school practices are identified which are often adopted by schools as preventive measures to deal with potential dropout (Centre for Educational Leadership, 2000). These practices are specifically catered for students “who perform less well at school, often break school regulations, receive little support from their family, have poor relationship with teachers and do not identify themselves with school” (Centre for Educational Leadership, 2000: p. 4). These students are considered as at risk of dropping out. The school practices consist of mainly counseling programs for students in order to restore their self-confidence, enhance their self-esteem and regain their interest in school work. However, some schools adopt a more effective approach in dealing with students at risk. This approach involves changing the culture of schools to one that is more student-oriented and one that will give a more positive school experience for students. Examples include a mentor program in which a mentor teacher is assigned to provide care and counseling to students at risk; a student helping program in which senior form students are asked to help those in the junior form in their school work; a counseling program for students breaking regulations; extra-curricular activities for students as part of the counseling program or incorporated into the formal curriculum; and other new initiatives undertaken to provide help to students at risk. Such positive school practices are encouraged as a means to provide a friendly and caring environment at school, to build up good student-teacher relationship, to promote the students’ interest in learning, and to enhance their sense of belonging and self-confidence. However, no programs to “induce appropriate attributions” has been put in place in school.

### CONTRIBUTIONS OF THE PRESENT THESIS

The results of the present study suggest linkages among truancy status, family and school experiences, locus of control and children’s attributions. Specifically, children’s family and school experiences provide the social contexts for them to interpret social events. For example, interaction with teachers lead to an interpretation process which involves figuring why particular social events have occurred. Thus, children’s control orientation and their attributions for school outcomes are related psychological processes, both of which are dependent to some degree on their experience in family and school. Consequently, the truants are likely to be faced with a different attributional

task than are the non-truants, primarily because their family and school experiences differ. For example, a truant may make attributions about school events that support their negative views of the school environment. In many respects, the analytic approach used in the present study for the study of school truancy is a new one, but one that is first adopted in Hong Kong. To further assess its potential to be replicated in other studies, this approach can be adapted for use in future research in both Chinese and other cultural contexts to see if meaningful results could be obtained.

In this thesis, a different method was used to assess children's causal attributions. The author's concern with the cultural relevance of the original Attributional Style Questionnaire (Peterson et al., 1982) and its adaptability to children in Hong Kong has led to the decision to develop an adapted ASQ for use in the present study. Although four general types of events (i.e., positive and negative achievement events and positive and negative affiliation events) were presented to children in the present sample as in the case of most prior investigations, the hypothetical events used to elicit causal attributions in the present research were domain-specific and culturally relevant to allow spontaneous causal explanations. Furthermore, the use of a three-point scale instead of a seven-point scale as in the original ASQ has proved to work well with Chinese children with low cognitive ability. Evidence has indicated that the adapted ASQ in general, as well as its dimensional measures, are more reliable than the original model. Thus, the adapted ASQ may be used as a domain-specific measure of the attributional style of Chinese adolescents in Hong Kong. Given that the hypothetical events are highly specific to the outcomes to be predicted, the adapted measure will contribute usefully to the prediction of school adjustment problems of Chinese adolescents in Hong Kong.

As a pessimistic attributional style which explains bad events as due to internal, stable and global factors can predict depressive symptoms in children (Seligman, Peterson, Kaslow, Tenenbaum, Alloy and Abramson, 1984; Nolen-Hokseman, Girgus and Seligman, 1986), the adapted ASQ can be an effective and appropriate instrument for teachers in Hong Kong to identify the depressive students and give counseling and help to them.

Another important characteristic of the present study is that both positive and negative events are taken into account, whereas other studies in the attributional domain

mostly have focused on negative events. The results which show that correlations between the attributional variables and the relevant measures are different for positive and negative events indicate the importance of including both event kinds when using attributional style for predicting or explaining personality and behavioural variables. In other words, attributional style for negative and positive events should be considered separately in the study of personality and behaviour. In the absence of this line of research in Hong Kong, the present study is particularly useful in contributing to a beginning understanding of how children's causal attributions may be related to their family and school experiences, and truancy status.

Finally, despite limitations, the theoretical framework and approach to understanding school truancy is new in Hong Kong, and the theoretical elements will stand in their own right even if the empirical data or analyses are not as strong as originally intended.

#### LIMITATIONS OF THE STUDY

Limitations of the study pertain to both its internal validity and external validity. The study is a correlational study. Conclusions cannot be drawn regarding cause and effect as they can in an experimental study in which variables are manipulated by the investigator. The study can only be viewed as an exploration into the relationship between and among the designated variables. As the research is conducted in a natural setting, control is difficult to obtain in the administration of the measuring instruments. Administration in classroom has drawbacks in that personal attitudes with respect to use of class time for purposes other than instruction may come through to the students. Students' attitudes and behaviors, moreover, were not monitored or tested as in the case of an experiment. All measurements are based on self-report and as such are vulnerable to the effect of social desirability, even though many of the measures attained an acceptable level of reliability and validity. Many questions presented to the respondents involved awakened unresolved issues associated with adjustment problems and truancy. It is possible that some respondents may find themselves in a state of denial regarding negative outcomes.

Another possible limitation concerns the representativeness of the sample. A

convenience sample drawn from four “band 5” schools may not be representative of the broader population of truants and non-truants. With restriction resulting from the lack of access to other “band 5” schools, it also imposes limits to the analyses and the generalizability of the research findings to other “band 5” schools and truants. The lack of external validity to other “band 5” schools and truants must be acknowledged as a limitation. Nevertheless, the truancy factors, both social and psychological, may almost certainly apply to “non band 5” schools and other social/educational contexts within which adolescents are differentially at risk to the same factors. Thus the study may provide useful insights into the reality of truancy factors which can influence social/educational policy across all schools and other social/educational settings.

Furthermore, the exclusive use of the quantitative approach in the present study may be seen as a limitation by some methodologists. The major weakness of the quantitative approach is that it may fail to uncover the underlying meanings of the observed relationships. Thus the quantitative information obtained in the present study can be seen as providing a basis or a frame of reference for a more in-depth study of school truancy. More specifically, the use of in-depth interviews will provide a more direct method of study and one which may also be able to generate a more experiential and contextualised account of truancy and non-truancy to fill in many gaps and questions created by quantitative data. Additionally, the Locus of Control Scale (Nowicki-Strickland, 1974), and the adapted Attributional Style Questionnaire are essentially psychological psychometric measures which may need extension by social and phenomenological approaches. In sum, the in-depth, experiential and qualitative data obtained by these approaches should elaborate and deepen the understanding of truanting and its causes.

### SUGGESTIONS FOR FURTHER RESEARCH

There are several implications for further research that emerge from the findings of the present investigation.

First, the dimension of controllability, the expectancies and the unique contribution of individual causes to school truancy may be examined in future studies. Krantz and Rude (1984) urged that the dimension of controllability is the cornerstone of the original and the reformulation of the learned-helplessness model. However, it is not included in



the Seligman and Peterson's measurement of attributional style or the adapted ASQ developed by the author. Although locus of control was included in the present study, it is more desirable to include the perceptions of control in the measurement of attributional style in future study of school truancy. A methodologically finer tool for measuring attributional style will also help in the further development of the learned helplessness theory.

Attributions for each type of events may be indirectly related to school truancy by means of expectancies. The study of truants' expectancies should add to the understanding of school truancy. Bandura's theory of self efficacy (1977) may be used as a basis for further research to fill in this gap of information. Specifically, future research can contribute by measuring self efficacy and differentiating the truants and non-truants on this measure and its relationships to attributional style.

Important between-group status differences have been noted on the relevant measures in the present study. However, individual differences in children's social and psychological experiences within status groups have not yet been explained. Individual differences, which will add to our understanding of the processes underlying children's difficulties, may call for an in-depth, qualitative study of an adequate number of cases. In particular, more attention should be given to gender differences in the study of individual differences.

To further our understanding of the unique contribution of individual dimension of causal attribution to school truancy, further research must examine the dimensional meaning of attributions. For example, internal attribution, even though referring to causes within an individual, may mean different things (e.g., "ability" or "effort"); similarly, external attribution may refer to different causes in the situation or environment (e.g., "the exam was unfair" or "the teacher is a bad teacher"). Differences in dimensional meaning have different implications for the understanding of school truancy. One well-established finding that has emerged from the prior research is that self-perceptions of low ability versus lack of effort have far-reaching and dissimilar consequences (Weiner, 1985, 1986). Failure because of perceived low ability reflects on the failing individual and therefore has implications for self-esteem. As a chronic cause of failure, a self-ascription to low ability also tends to lower one's expectations for

future success. And because low ability is perceived as uncontrollable, it leads to the belief that there is no response in one's repertoire to alter the course of failure. Attributing failure to lack of effort, on the other hand, is more adaptive because effort is perceived as both changeable and under one's volitional control. Thus the failing student who believes that he or she did not try hard enough can be bolstered by the expectation that failure need not occur again and by the belief that there is a relationship between one's efforts and subsequent outcomes.

Second, researchers have given ample support to the notion that an undesirable attribution style is closely related to coping behaviour and depression (e.g., Arkin, Appleman, & Burger, 1980; Klein et al., 1976; Kuiper, 1978; Major, Mueller, & Hildebrandt, 1985; Peterson & Seligman, 1984; Raps, Peterson, Reinhart, Abramson, & Seligman, 1982; Rizley, 1978; Seligman et al., 1979; Sweeney, Anderson, & Bailey, 1986). The attributional style of the truants in the present study seems to suggest that depression is related to truancy. Coping is basically the strategy to handle negative life events, so it is natural to expect that the truants to be most likely those who do not properly cope with stress or negative life events. In future studies of school truancy, it may be useful to examine the relationship between attributional style and depression of the truants, as well as the actual coping strategies used by the truants before depression emerged. Such studies will contribute to confirm the suggestions on proper strategies in coping with negative life events, in addition to intervention to influence attributional style through learning and instruction (e.g., Fostering, 1985).

#### A FINAL NOTE

A final note is now in order. The present thesis shows that school truancy can be seen as a maladaptive form of response to school children's difficulties in making adjustment to the school. The truants are school children who relate poorly with their teachers, disbelieve in the value of schooling, and often get themselves into trouble by breaking rules and regulations in school. The findings further suggest that school truancy is a problem representing learned helplessness. It arises as a result of the interaction between the expectancies of successful response-outcomes in school and inability to control these outcomes. As a consequence, the truants may experience anxiety and depression, and form negative self-perceptions that may undermine their

self-esteem and disrupt their on-going performance in school. They will make negative self-attributions, exhibit passivity on school tasks that require their ability, and allow the school environments to dominate them. Given the achievement-orientation of the Chinese culture, those students with an internal achievement orientation along with a perception that the failed events are both important and determined by some stable and global causes will be most affected.

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## APPENDICES

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## Appendix 1 Question items of the CNS-IE scale

Question items for which a 'yes' answer to the question indicates externality

1. Do you believe that most problems will solve themselves if you just don't fool with them ?
2. Are some kids just born lucky ?
3. Are you often blamed for things that just aren't your fault ?
4. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway ?
5. Do you feel that if things start out well in the morning that it's going to be a good day no matter what happens ?
6. Do you believe that wishing can make good things happen ?
7. When you get punished does it usually seem it's for no good reason at all ?
8. Most of the time do you find it hard to change a friend's mind ?
9. Do you feel that it's nearly impossible to change your parent's mind about anything ?
10. Do you feel that when you do something wrong there's very little you can do to make it right ?
11. Do you believe that most kids are just born lucky ?
12. Are most of the other kids your age stronger than you are ?
13. Do you feel that one of the best ways to handle most problems is just not to think about them ?
14. If you find a four leaf clover do you believe that it might bring you good luck ?
15. Do you feel that when a kid your age decides to hit you, there's little you can do to stop him or her ?
16. Have you ever had a good luck charm ?
17. Have you felt that when people were mean to you it was usually for no reason at all ?
18. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them ?
19. Most of the time do you find it useless to try to get your own way at home ?
20. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters ?
21. Do you usually feel that you have little to say about what you get to eat at home ?
22. Do you feel that when someone doesn't like you there's little you can do about it ?
23. Do you usually feel that it's almost useless to try in school because most other children are just plain smarter than you are ?
24. Are you the kind of person who believes that planning ahead makes things turn out better ?
25. Most of the time do you feel that you have little to say about what your family decides to do ?

Question items for which an answer 'no' to the question indicates externality

1. Do you believe that you can stop yourself from catching a cold ?
2. Most of the time do you think that getting good grades means a great deal to you ?
3. Do you believe that if somebody studies hard enough he or she can pass any subject ?
4. Do you feel that most of the time parents listen to what their children have to say ?
5. Do you think that cheering more than luck helps a team to win ?
6. Do you believe that your parents should allow you to make most of your own decisions ?
7. Do you feel that you have a lot of choice in deciding who your friends are ?
7. Do you often feel that whether you do your homework has much to do with what kinds of grades you get ?
9. Do you believe that whether or not people like you depends on how you act ?
10. Will your parents usually help you if you ask them to ?
11. Most of the time do you feel that you can change what might happen tomorrow by what you do today ?

12. Do you think that kids can get their own way if they just keep trying ?
13. Do you feel that when good things happen they happen because of hard work ?
14. Do you feel that it's easy to get friends to do what you want them to ?
15. Do you think that it's better to be smart than to be lucky ?



## Appendix 2 Banding value of school

Band 1 refers to those students at the top 20% in a converted order of merit, Band 2 at the next 20%, and so on. Thus Band 5 schools are those schools which have admitted a large proportion of their students from bottom 20% in their Form 1 intakes. These are unpopular schools with students who are typically academically low achievers and who have serious disciplinary problems (Education department, 1993).

Most schools have to admit students from a mix of bands, an average banding value can be calculated for the Form 1 student intake for each school. A school admitting 70% Band 5 students, 20% Band 4 students and 10% Band 3 students will have an average banding value of 4.60. Band 5 schools can be defined as those schools which have an averaging banding value greater than 4.50, that is, those schools which have admitted a great proportion of Band 5 students in their Form 1 intakes.

Based on the 1992 Secondary School Places allocation (SSPA), the number of Band 5 students was 17,032 (out of 855,115 Form 1 students) and there were 63 schools which had admitted more than 70% Band 5 students (out of 446 secondary schools) (Education Department, 1993).

### Appendix 3 Pilot study

#### Groupings and number of events for the construction of dimension measures

|              |             | Outcome Type |     | Total<br># of events |
|--------------|-------------|--------------|-----|----------------------|
|              |             | Good         | Bad |                      |
| Task<br>Type | Achievement | 3            | 3   | 6                    |
|              | Affiliation | 3            | 3   | 6                    |
| Total        |             | 6            | 6   | 12                   |

As shown, the groupings are based on type of outcome, type of tasks, and the combinations of types of outcomes and tasks:

- (1) 2 outcome groups (i.e., good/bad) with 6 events each; resulting in a total of 6 dimension measures.
- (2) 2 task groups (i.e., achievement/affiliation) with 6 events each; resulting in a total of 6 dimension measures.
- (3) 4 outcome-task sub-groups (i.e., good/achievement, good/affiliation, bad/achievement, bad/affiliation) with 3 events each; resulting in a total of 12 dimension measures.

#### Dimension reliabilities and intercorrelations (the adapted ASQ)

| Dimension      | 1     | 2      | 3     | 4     | 5     | 6     |
|----------------|-------|--------|-------|-------|-------|-------|
| Good outcomes  |       |        |       |       |       |       |
| 1. Internality | (.49) |        |       |       |       |       |
| 2. Stability   | .58** | (.59)  |       |       |       |       |
| 3. Globality   | .41*  | .38*   | (.42) |       |       |       |
| Bad outcomes   |       |        |       |       |       |       |
| 4. Internality | -.45* | -.39*  | -.47* | (.68) |       |       |
| 5. Stability   | -.43* | -.52** | -.47* | .73*  | (.68) |       |
| 6. Globality   | -.35  | -.07   | -.35  | .63** | .65** | (.60) |

Note:

- (1) Figures in parentheses are reliabilities estimated by coefficient alpha.
- (2) The range of alpha coefficients for the attribution dimensions of the adapted ASQ is .42 to .68; whereas those reported for the CASQ are: .31 to .55 (Seligman et al., 1984), -.05 to .56 (Robins and Hinkley, 1989), and .20 to .45 (Wong, 1993).
- (3) The ranges of alpha coefficients reported for the attribution dimensions of the original ASQ are: .44 to .69 (Peterson et al., 1982); and .40 to .70 (Tennen and Herzberger, 1986).
- (4) \*  $p < 0.05$ ; \*\*  $p < 0.01$ .

#### Appendix 4 Letter to school principal

Dear school principal,

I am writing to seek your support for a study of school adjustment of secondary school students. This study is based on the premise that tendency to attribute causes of failure to external factors is a significant cognitive factor which contributes to dissatisfaction with school life and school misbehaviors. This study will provide an empirical basis to inform professional practice, and to shape institutional responses to student problems. The study premise, if supported by data, will also help schools clarify the general understanding about school factors in contributing to maladjustment in schools.

The research instrument is a questionnaire to be group-administered by a research assistant to students in a class to be randomly selected from each Lower Form (i.e., Form 1 to Form 3). The questionnaire, which takes about 30 minutes to complete, can be administered in class periods designed for special projects.

Your support is essential for the successful completion of the study. The information gathered will be kept strictly anonymous and confidential. No information will be revealed to anyone under the name of the school or the respondent. A copy of the research instrument is enclosed for your perusal. If you have any queries, please do not hesitate to contact me at 28592069. Thank you for your support and assistance in this matter.

Sincerely,

---

Tam Shui-kee, Tony

## Appendix 5 The questionnaire

### English version of the questionnaire

#### Questionnaire

INTRODUCTION: WE ARE RESEARCHERS OF THE DEPARTMENT OF SOCIAL WORK AND SOCIAL ADMINISTRATION AT THE UNIVERSITY OF HONG KONG. WE ARE CONDUCTING A STUDY TO FIND OUT HOW SECONDARY SCHOOL STUDENTS ARE DOING IN SCHOOL, AND WHAT THEIR EXPERIENCES AND FEELINGS ARE AS A STUDENT. IT IS HOPED THAT THE INFORMATION OBTAINED WILL PROVIDE A BASIS FOR GIVING HELP TO MANY YOUNG PEOPLE LIKE YOURSELF.

YOU ARE UNDER NO OBLIGATION TO TAKE PART; BUT YOUR PARTICIPATION IS EXTREMELY IMPORTANT. YOUR INFORMATION WILL BE USED STRICTLY FOR RESEARCH PURPOSES, AND WILL NOT BE REVEALED UNDER YOUR NAME TO ANYONE. YOU MAY WITHDRAW AT ANY TIME FOR ANY REASON IF YOU FEEL UNCOMFORTABLE WITH THE QUESTIONS. THANK YOU FOR YOUR CO-OPERATION !

|  |                |                                                   |
|--|----------------|---------------------------------------------------|
|  | SCHOOL NUMBER  | <input type="checkbox"/> <input type="checkbox"/> |
|  | FORM           | <input type="checkbox"/>                          |
|  | STUDENT NUMBER | <input type="checkbox"/> <input type="checkbox"/> |

1. Age (as of last birthday): \_\_\_\_\_ years

2. Sex: ☐ 1. Male ☐ 2. Female

3. Length of residence in Hong Kong: \_\_\_\_\_ years \_\_\_\_\_ months

4. Religion: ☐ 1. No religion ☐ 2. Catholic/Christian ☐ 3. Buddhist/Taoist/Muslim  
☐ 4. Others (Please Specify) \_\_\_\_\_

5. Number of brothers and sisters: \_\_\_\_\_

6. Marital status of parents: ☐ 1. Married ☐ 2. Separated ☐ 3. Divorced  
☐ 4. Widowed ☐ 5. Others \_\_\_\_\_

7. Type of housing: ☐ 1. Public housing ☐ 2. Private housing ☐ 3. Temporary housing  
☐ 4. Squatter area ☐ 5. Others \_\_\_\_\_

8. Parents' educational attainment:

|                             | Father                   | Mother                   |
|-----------------------------|--------------------------|--------------------------|
| 1. No formal education      | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Primary school or below  | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Secondary education      | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Further/Higher education | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Don't know               | <input type="checkbox"/> | <input type="checkbox"/> |

9. Parents' usual occupation

|                                  | Father                   | Mother                   |
|----------------------------------|--------------------------|--------------------------|
| 1. Professional and technical    | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Administrative and managerial | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Clerical                      | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Sales                         | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Service                       | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Others (Please Specify)       |                          |                          |

---

10. Generally, would you say your relationship with parents is:

- ☐ 1. Very poor      ☐ 2. Poor      ☐ 3. Good      ☐ 4. Very good

11. Generally, would you say your relationship with siblings is:

- ☐ 1. Very poor      ☐ 2. Poor      ☐ 3. Good      ☐ 4. Very good  
☐ 5. NA

12. THE FOLLOWING STATEMENTS ARE CONCERNED WITH HOW YOU FEEL ABOUT LIFE IN GENERAL. AS I READ YOU A STATEMENT, PLEASE TICK THE 'YES' OR 'NO' BOX TO REPRESENT YOUR BEST ANSWER.

|                                                                                                                | <u>YES</u>               | <u>NO</u>                |
|----------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| You believe that most problems will solve themselves if you just don't fool with them.                         | <input type="checkbox"/> | <input type="checkbox"/> |
| You believe that you can stop yourself from catching a cold.                                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| Some kids are just born lucky.                                                                                 | <input type="checkbox"/> | <input type="checkbox"/> |
| Most of the time you think that getting good grades means a great deal to you.                                 | <input type="checkbox"/> | <input type="checkbox"/> |
| You are often blamed for things that just aren't your fault.                                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| You believe that if somebody studies hard enough he or she can pass any subject.                               | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that most of the time it doesn't pay to try hard because things never turn out right anyway.          | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that if things start out well in the morning that it's going to be a good day no matter what happens. | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that most of the time parents listen to what their children have to say.                              | <input type="checkbox"/> | <input type="checkbox"/> |
| You believe that wishing can make good things happen.                                                          | <input type="checkbox"/> | <input type="checkbox"/> |
| When you get punished it usually seem it's for no good reason at all.                                          | <input type="checkbox"/> | <input type="checkbox"/> |
| Most of the time you find it hard to change a friend's mind.                                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| You think that cheering more than luck helps a team to win.                                                    | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that it's nearly impossible to change your parent's mind about anything.                              | <input type="checkbox"/> | <input type="checkbox"/> |
| You believe that your parents should allow you to make most of your own decisions.                             | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that when you do something wrong there's very little you can do to make it right.                     | <input type="checkbox"/> | <input type="checkbox"/> |

|                                                                                                                               | <u>YES</u>               | <u>NO</u>                |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| You believe that most kids are just born lucky.                                                                               | <input type="checkbox"/> | <input type="checkbox"/> |
| Most of the other kids your age are stronger than you are.                                                                    | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that one of the best ways to handle most problems is just not to think about them.                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that you have a lot of choice in deciding who your friends are.                                                      | <input type="checkbox"/> | <input type="checkbox"/> |
| If you find a lucky star you believe that it might bring you good luck.                                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| You often feel that whether you do your homework has much to do with what kinds of grades you get.                            | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that when a kid your age decides to hit you, there's little you can do to stop him or her.                           | <input type="checkbox"/> | <input type="checkbox"/> |
| You have had a good luck charm.                                                                                               | <input type="checkbox"/> | <input type="checkbox"/> |
| You believe that whether or not people like you depends on how you act.                                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| Your parents will usually help you if you ask them to.                                                                        | <input type="checkbox"/> | <input type="checkbox"/> |
| You have felt that when people were mean to you it was usually for no reason at all.                                          | <input type="checkbox"/> | <input type="checkbox"/> |
| Most of the time you feel that you can change what might happen tomorrow by what you do today.                                | <input type="checkbox"/> | <input type="checkbox"/> |
| You believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them. | <input type="checkbox"/> | <input type="checkbox"/> |
| You think that kids can get their own way if they just keep trying.                                                           | <input type="checkbox"/> | <input type="checkbox"/> |
| Most of the time you find it useless to try to get your own way at home.                                                      | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that when good things happen they happen because of hard work.                                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that when somebody your age wants to be your enemy there's little you can do to change matters.                      | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that it's easy to get friends to do what you want them to.                                                           | <input type="checkbox"/> | <input type="checkbox"/> |
| You usually feel that you have little to say about what you get to eat at home.                                               | <input type="checkbox"/> | <input type="checkbox"/> |
| You feel that when someone doesn't like you there's little you can do about it.                                               | <input type="checkbox"/> | <input type="checkbox"/> |
| You usually feel that it's almost useless to try in school because most other children are just plain smarter than you are.   | <input type="checkbox"/> | <input type="checkbox"/> |
| You are the kind of person who believes that planning ahead makes things turn out better.                                     | <input type="checkbox"/> | <input type="checkbox"/> |
| Most of the time you feel that you have little to say about what your family decides to do.                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| You think that it's better to be smart than to be lucky.                                                                      | <input type="checkbox"/> | <input type="checkbox"/> |

13. MANY KIDS DO THE FOLLOWING THINGS JUST FOR FUN. SINCE THE LAST YEAR OF SCHOOL, HOW OFTEN HAVE YOU DONE THESE THINGS ? PLEASE CIRCLE THE CORRECT ANSWER ON A SCALE FROM 0 TO 4:

|                    | Never<br>0 | Less than<br>once<br>per month<br>1 | Once<br>or twice<br>per month<br>2 | Once<br>per week<br>3 | More<br>than once<br>per week<br>4 |
|--------------------|------------|-------------------------------------|------------------------------------|-----------------------|------------------------------------|
| Smoking            | 0          | 1                                   | 2                                  | 3                     | 4                                  |
| Damage to property | 0          | 1                                   | 2                                  | 3                     | 4                                  |

|                                      |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|
| Habitual lateness for school         | 0 | 1 | 2 | 3 | 4 |
| Fighting                             | 0 | 1 | 2 | 3 | 4 |
| Bullying other kids                  | 0 | 1 | 2 | 3 | 4 |
| Possession of pornographic materials | 0 | 1 | 2 | 3 | 4 |
| Stealing                             | 0 | 1 | 2 | 3 | 4 |
| Cheating in test/examination         | 0 | 1 | 2 | 3 | 4 |
| Skipping classes/lessons             | 0 | 1 | 2 | 3 | 4 |
| Use foul language                    | 0 | 1 | 2 | 3 | 4 |
| Taking drugs                         | 0 | 1 | 2 | 3 | 4 |

14. Since the last year of school, have you ever skipped school without approval from parents/school authority ? About how many days have you skipped school ?

- ☐ 1. None      ☐ 2. 1 to 6 days      ☐ 3. 7 to 13 days      ☐ 4. 14 to 20 days  
☐ 5. 21 days or more

15. IN THE FOLLOWING SECTION YOU ARE PRESENTED WITH TWELVE HYPOTHETICAL EVENTS. AS I READ YOU EACH EVENT, DECIDE WHAT YOU FEEL WOULD BE THE MAJOR CAUSE OF THE EVENT IF IT HAPPENED TO YOU; AND ANSWER THREE QUESTIONS ABOUT THE CAUSE.

**EVENT 1: YOU OBTAIN A GOOD GRADE FROM A SCHOOL EXAMINATION.**  
**IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.**

Is the cause of your good grade due to something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

In the future, when you sit for examination, will this cause again be present ?

Will never again be present      1      2      3      Will always be present

Is the cause something that just affects examination, or does it also influence other areas of your life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

**EVENT 2: YOU TAKE A TEST, AND IT GOES BADLY.**

**IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.**

Is the cause of poor test results due to something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

In the future, when taking a test, will this cause again be present ?

Will never again be present      1      2      3      Will always be present

Is the cause something that just influences taking tests, or does it also influence other areas of life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

**EVENT 3: YOU GET PHYSICALLY HURT BY OTHER KIDS IN SCHOOL.**

**IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.**

Is the cause of getting physically hurt due to something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

**In the future, when you are with other kids in school, will this cause again be present ?**

|                             |   |   |   |                        |
|-----------------------------|---|---|---|------------------------|
| Will never again be present | 1 | 2 | 3 | Will always be present |
|-----------------------------|---|---|---|------------------------|

Is the cause something that just influences your getting physically hurt, or does it also influence other areas of life?

| Influences just this particular situation | 1 | 2 | 3 | Influences other situations in my life |
|-------------------------------------------|---|---|---|----------------------------------------|
|-------------------------------------------|---|---|---|----------------------------------------|

**EVENT 4: YOU TRY TO FIGURE OUT THE ANSWER TO A DIFFICULT PROBLEM IN MATHEMATICS AND YOU MAKE IT.**

IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.

Is the cause of success in figuring out the answer to a difficult problem in mathematics due to something about you or something about other people or circumstances ?

|                                              |   |   |   |                   |
|----------------------------------------------|---|---|---|-------------------|
| Totally due to other people or circumstances | 1 | 2 | 3 | Totally due to me |
|----------------------------------------------|---|---|---|-------------------|

In the future, when trying to figure out the answer to a difficult problem in mathematics, will this cause again be present ?

|                             |   |   |   |                        |
|-----------------------------|---|---|---|------------------------|
| Will never again be present | 1 | 2 | 3 | Will always be present |
|-----------------------------|---|---|---|------------------------|

Is the cause something that just influences your trying to figure out the answer to a difficult problem in mathematics, or does it also influence other areas of life ?

| Influences just this particular situation | 1 | 2 | 3 | Influences other situations in my life |
|-------------------------------------------|---|---|---|----------------------------------------|
|-------------------------------------------|---|---|---|----------------------------------------|

### EVENT 5: YOUR TEACHERS TREAT YOU MORE FAIRLY IN SCHOOL.

IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.

Is the cause of your teacher treating you more fairly due to something about you or something about other people or circumstances ?

|                                              |   |   |   |                   |
|----------------------------------------------|---|---|---|-------------------|
| Totally due to other people or circumstances | 1 | 2 | 3 | Totally due to me |
|----------------------------------------------|---|---|---|-------------------|

**In future interactions with teachers, will this cause again be present ?**

|                             |   |   |   |                        |
|-----------------------------|---|---|---|------------------------|
| Will never again be present | 1 | 2 | 3 | Will always be present |
|-----------------------------|---|---|---|------------------------|

Is the cause something that just influences interacting with teachers, or does it also influence other areas of life ?

|                                           |   |   |   |                                        |
|-------------------------------------------|---|---|---|----------------------------------------|
| Influences just this particular situation | 1 | 2 | 3 | Influences other situations in my life |
|-------------------------------------------|---|---|---|----------------------------------------|

### EVENT 6: YOU CAN'T GET ALL THE STUDIES DONE FOR AN EXAMINATION.

IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.

Is the cause of your not getting all the studies done due to something about you or something about other people or circumstances ?

|                                              |   |   |   |                   |
|----------------------------------------------|---|---|---|-------------------|
| Totally due to other people or circumstances | 1 | 2 | 3 | Totally due to me |
|----------------------------------------------|---|---|---|-------------------|

**In the future when preparing for an examination, will this cause again be present ?**

|                             |   |   |   |                        |
|-----------------------------|---|---|---|------------------------|
| Will never again be present | 1 | 2 | 3 | Will always be present |
|-----------------------------|---|---|---|------------------------|

Is the cause something that just influences preparing for an examination, or does it also influence other areas of life ?

| Influences just this particular situation | 1 | 2 | 3 | Influences other situations in my life |
|-------------------------------------------|---|---|---|----------------------------------------|
|-------------------------------------------|---|---|---|----------------------------------------|

**EVENT 7: YOU'RE PUNISHED BY YOUR TEACHER FOR DOING SOMETHING WRONG.**

IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.

Is the cause of your being punished due to something about you or something about other people or circumstances?

|                                              |   |   |   |                   |
|----------------------------------------------|---|---|---|-------------------|
| Totally due to other people or circumstances | 1 | 2 | 3 | Totally due to me |
|----------------------------------------------|---|---|---|-------------------|

**In the future when interacting with your teacher, will this cause again be present ?**

|                             |   |   |   |                        |
|-----------------------------|---|---|---|------------------------|
| Will never again be present | 1 | 2 | 3 | Will always be present |
|-----------------------------|---|---|---|------------------------|



Is the cause something that just influences interacting with your teacher, or does it also influence other areas of life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

**EVENT 8: YOUR CLASSMATES ARE TREATING YOU MORE NICELY.**

**IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.**

Is the cause of your classmates treating you more nicely due to something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

In future interactions with your classmates, will this cause again be present ?

Will never again be present      1      2      3      Will always be present

Is the cause something that just influences interacting with your classmates, or does it also influence other areas of life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

**EVENT 9: YOU WANT TO PLAY WITH A KID IN SCHOOL AND HE DOES NOT WANT TO PLAY WITH YOU.**

**IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.**

Is the cause of a kid not wanting to play with you something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

In the future, when you want to play with a kid, will this cause again be present ?

Will never again be present      1      2      3      Will always be present

Is the cause something that just influences your wanting to play with a kid, or does it also influence other areas of life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

**EVENT 10: YOU ARE ABLE TO COMPLETE YOUR HOMEWORK WITHOUT ANY DIFFICULTY.**

**IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.**

Is the cause of your being able to complete your homework without any difficulty due to something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

In the future, when doing your homework, will this cause again be present ?

Will never again be present      1      2      3      Will always be present

Is the cause something that just influences your doing homework, or does it also influence other areas of life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

**EVENT 11: YOUR TEACHERS AND CLASSMATES THINK THAT YOU'RE IMPORTANT.**

**IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.**

Is the cause of your teachers and classmates thinking that you are important due to something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

In your future appraisal by teachers and classmates, will this cause again be present ?

Will never again be present      1      2      3      Will always be present

Is the cause something that just influences how teachers and classmates think, or does it also influence other areas of life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

**EVENT 12: YOU ANSWER QUESTIONS IN CLASS AND YOUR CLASSMATES LAUGH AT YOUR ANSWERS.**

IMAGINE THE MAJOR CAUSE THAT YOU FEEL WOULD HAVE CAUSED IT.

Is the cause of your classmates laughing at your answers something about you or something about other people or circumstances ?

Totally due to other people or circumstances      1      2      3      Totally due to me

In the future, when answering questions in class, will this cause again be present ?

Will never again be present      1      2      3      Will always be present

Is the cause something that just influences your answering questions in class, or does it also influence other areas of life ?

Influences just this particular situation      1      2      3      Influences other situations in my life

17. Would you please rate your performance in the following subjects in comparison to other students in your class. Would you say you perform less than average, average, just above average, or much better than average ?

|             | <u>Below<br/>average</u> | <u>Average</u> | <u>Just above<br/>average</u> | <u>Much better<br/>than average</u> |
|-------------|--------------------------|----------------|-------------------------------|-------------------------------------|
| English     | 0                        | 1              | 2                             | 3                                   |
| Chinese     | 0                        | 1              | 2                             | 3                                   |
| Mathematics | 0                        | 1              | 2                             | 3                                   |

17. Generally, would you say your relationship with classmates is:

☐ 1. Very poor      ☐ 2. Poor      ☐ 3. Good      ☐ 4. Very good

18. Generally, would you say your relationship with teachers is:

☐ 1. Very poor      ☐ 2. Poor      ☐ 3. Good      ☐ 4. Very good

19. How often do you feel that schooling is a good preparation for your future ?

☐ 1. Rarely or none of the time      ☐ 2. A little of the time      ☐ 3. Some of the time  
☐ 4. A good part of the time      ☐ 5. Most or all of the time

20. How often do you feel a sense of being successful in schoolwork ?

☐ 1. Rarely or none of the time      ☐ 2. A little of the time      ☐ 3. Some of the time  
☐ 4. A good part of the time      ☐ 5. Most or all of the time

21. How often do you feel that school is a place that motivates you to learn ?

☐ 1. Rarely or none of the time      ☐ 2. A little of the time      ☐ 3. Some of the time  
☐ 4. A good part of the time      ☐ 5. Most or all of the time

22. How often do you feel that learning is enjoyable for its own sake ?

☐ 1. Rarely or none of the time      ☐ 2. A little of the time      ☐ 3. Some of the time  
☐ 4. A good part of the time      ☐ 5. Most or all of the time

23. In general, would you say your impression of your school is:

☐ 1. Very poor      ☐ 2. Poor      ☐ 3. Good      ☐ 4. Very good

THANK YOU FOR YOUR CO-OPERATION. PLEASE CHECK TO MAKE SURE THAT YOU HAVE ANSWERED ALL THE QUESTIONS.

WE WOULD ALSO LIKE TO TALK TO YOU AT A LATER DATE ABOUT SCHOOL IN HONG KONG. PLEASE LEAVE YOUR NAME, ADDRESS AND TELEPHONE NUMBER BELOW SO THAT WE COULD MAKE FUTURE CONTACTS. MANY THANKS.

NAME: \_\_\_\_\_

ADDRESS:

\_\_\_\_\_

TELEPHONE (HOME): \_\_\_\_\_ MOBILE: \_\_\_\_\_

## 問卷調查

序言：我們是香港大學社會工作及社會行政學系的研究員，正在進行一項研究，藉此了解中學生如何適應學校生活以及他們的經驗，問題和感受。希望收集的資料有助改善學校生活及教育服務的質素。我們希望你參加此項研究。雖然你沒有必須參加的義務，但你的參與非常重要。你的資料謹作研究之用，而不會以你的名義向任何人透露。請確實地回答所有問題。如果問題引起不安，你可以要求退出。謝謝合作！

供本辦事處工作人員填寫

學校編號 □□

級別 □

學生編號 □□

1. 年齡（最近一次生日為止）： \_\_\_\_\_ 歲

2. 性別：        □ 1. 男性        □ 2. 女性

3. 在香港居住年期： \_\_\_\_\_ 年 \_\_\_\_\_ 月

4. 宗教信仰：    □ 1. 無宗教信仰        □ 2. 天主教/基督教        □ 3. 佛教/道教/回教  
                     □ 4. 其他（請說明） \_\_\_\_\_

5. 兄弟姐妹數目共： \_\_\_\_\_ 個

6. 父母婚姻狀況：    □ 1. 已婚        □ 2. 分居        □ 3. 離婚        □ 4. 喪偶  
                             □ 5. 其他（請說明） \_\_\_\_\_

7. 居住房屋類型：    □ 1. 公共房屋        □ 2. 私人樓宇        □ 3. 臨時房屋區  
                             □ 4. 木屋            □ 5. 其他（請說明） \_\_\_\_\_

8. 父母親教育程度：

|             | 父親 | 母親 |
|-------------|----|----|
| 1. 沒有受過任何教育 | □  | □  |
| 2. 小學或以下    | □  | □  |
| 3. 中學       | □  | □  |
| 4. 大專或以上    | □  | □  |
| 5. 不知道      | □  | □  |

9. 父母親職業：

|                  | 父親 | 母親 |
|------------------|----|----|
| 1. 專業人士          | □  | □  |
| 2. 行政技術人員        | □  | □  |
| 3. 文員            | □  | □  |
| 4. 銷售員           | □  | □  |
| 5. 服務員           | □  | □  |
| 6. 勞工            | □  | □  |
| 7. 其他（請說明） _____ |    |    |

10. 總括來說，你與你的父母的關係如何？

□ 1. 很差        □ 2. 差        □ 3. 好        □ 4. 很好



11. 總括來說，你與你的兄弟姊妹的關係如何？

- ☐ 1. 很差      ☐ 2. 差      ☐ 3. 好      ☐ 4. 很好      ☐ 5. 不適用

12. 下列一組句子是關於你對生活的一般感受。讀完每句句後，請你在「是」或「否」的方格內劃上√號，來代表你的答案。

|                                        | 是                        | 否                        |
|----------------------------------------|--------------------------|--------------------------|
| 你相信只要不是掉以輕心，多數問題都可以解決                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 你相信可以使自己不會患上感冒                         | <input type="checkbox"/> | <input type="checkbox"/> |
| 有些孩子生來就是幸運                             | <input type="checkbox"/> | <input type="checkbox"/> |
| 你經常認為，好成績對自己是非常重要的                     | <input type="checkbox"/> | <input type="checkbox"/> |
| 你常常不是自己的過錯而受到責備                        | <input type="checkbox"/> | <input type="checkbox"/> |
| 你相信，只要努力學習，任何科目都畧合格                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 你經常覺得，事情總是不會稱心如意，因此努力是不值得的             | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得「一日之計在於晨」這句說話是對的                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得你的父母經常聽取你的意見                        | <input type="checkbox"/> | <input type="checkbox"/> |
| 你相信只要有願望，事情便會如你所願                      | <input type="checkbox"/> | <input type="checkbox"/> |
| 在你受到懲罰時，你覺得根本是沒有理由的                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 你經常覺得很難使朋友改變主意                         | <input type="checkbox"/> | <input type="checkbox"/> |
| 你認為加油助威比運氣更有助於運動員獲勝                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得在任何事情上，要改變父母的主意幾乎是不可能的              | <input type="checkbox"/> | <input type="checkbox"/> |
| 你認為父母應容許你決定怎樣處理自己的事                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 在自己犯錯時，你總覺得無論做些什麼也不可以糾正這些錯誤            | <input type="checkbox"/> | <input type="checkbox"/> |
| 你認為，多數孩子天生就是幸運                         | <input type="checkbox"/> | <input type="checkbox"/> |
| 你認為與你年齡相當的孩子大部份都比你堅強                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得問題處理的最佳方法是不去想它們                     | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得你有很多選擇，來決定誰是自己的朋友                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 你相信幸運星會為你帶來好運                          | <input type="checkbox"/> | <input type="checkbox"/> |
| 你常常覺得做功課與否，與成績有很大關係                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 就算是一個年齡與你相當的孩子打你時，你覺得做些什麼去停止他也是無濟於事    | <input type="checkbox"/> | <input type="checkbox"/> |
| 你經常佩帶你相信可以帶來好運的物件                      | <input type="checkbox"/> | <input type="checkbox"/> |
| 你認為別人喜歡自己與否取決於自己的行為                    | <input type="checkbox"/> | <input type="checkbox"/> |
| 在你請求父母幫助時，他們通常會幫助你                     | <input type="checkbox"/> | <input type="checkbox"/> |
| 你感覺別人待你不好，通常是沒有什麼理由的                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得透過今天所做的事，便能夠改變明天發生的事                | <input type="checkbox"/> | <input type="checkbox"/> |
| 你相信當不好的事情要發生，不管怎樣，也不能阻止這些事情發生的         | <input type="checkbox"/> | <input type="checkbox"/> |
| 你認為，只要不斷努力，便可以得到合理的回報                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 你常常覺得要在家中凡事稱心如意，是不可能的                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得，要事情辦得好，是要靠自己的努力的                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 一個人要與你為敵，無論你做些什麼也不能改變這個事實              | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得差遣朋友替你辦事，是非常容易的事情                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 你一般覺得，自己在家裡吃些什麼，也沒有自己的份兒去決定            | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得別人不喜歡你，自己也不能做些什麼去改變它                | <input type="checkbox"/> | <input type="checkbox"/> |
| 你一般覺得，由於其他孩子總是比自己智慧高得多，無論在學校怎樣努力也是沒有用的 | <input type="checkbox"/> | <input type="checkbox"/> |
| 你相信要把事情辦得好，凡事要有計劃，未雨綢繆                 | <input type="checkbox"/> | <input type="checkbox"/> |
| 你覺得自己甚少可以參與決定家庭要做的事情                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 你認為聰明比幸運更好                             | <input type="checkbox"/> | <input type="checkbox"/> |

13. 很多學生為一時貪玩而做出一些像下列的事情。在上學年到現今為止，您曾否做過這些事情呢？  
請從 0 到 4 中，選出正確的答案並在上面劃圈：

|        | 從來沒有<br>0 | 每月少過一次<br>1 | 每月一兩次<br>2 | 每星期一次<br>3 | 每星期一次以上<br>4 |
|--------|-----------|-------------|------------|------------|--------------|
| 吸煙     | 0         | 1           | 2          | 3          | 4            |
| 損壞他人財物 | 0         | 1           | 2          | 3          | 4            |
| 慣性遲到   | 0         | 1           | 2          | 3          | 4            |
| 打架     | 0         | 1           | 2          | 3          | 4            |
| 欺侮他人   | 0         | 1           | 2          | 3          | 4            |
| 收藏黃色刊物 | 0         | 1           | 2          | 3          | 4            |
| 偷竊     | 0         | 1           | 2          | 3          | 4            |
| 測驗考試作弊 | 0         | 1           | 2          | 3          | 4            |
| 走堂     | 0         | 1           | 2          | 3          | 4            |
| 粗言穢語   | 0         | 1           | 2          | 3          | 4            |
| 服用軟性藥物 | 0         | 1           | 2          | 3          | 4            |

14. 由上學年到現今為止，你曾否未經家長或校方批准下曠課？大概一共曠課多少天？

- ☐ 1. 從來沒有      ☐ 2. 一至六天      ☐ 3. 七至十三天      ☐ 4. 十四至二十天  
☐ 5. 二十一天或以上

15. 以下是十二個假設的事情，(1) 如果事情發生在你的身上，你認為主要的原因是什麼；(2) 請回答與這個原因有關的三個問題。

情形一：你在學校考試取得好成績。

想像一個你認為造成這個情形的主要原因。

考試取得好成績的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來的考試這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響考試，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形二：你測驗的成績很不理想。

想像一個你認為造成這個情形的主要原因。

測驗成績很不理想的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來的測驗這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響測驗，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|



情形三：你在學校遭其他學生的騷擾或身體受到傷害。

想像一個你認為造成這個情形的主要原因。

你在學校遭其他學生的騷擾或身體受到傷害的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來你與其他學生相處，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響與其他學生相處，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形四：你嘗試解決數學上的一個難題並且獲得成功。

想像一個你認為造成這個情形的主要原因。

你成功解決數學上的難題的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來你嘗試解決數學上的難題，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響嘗試解決數學上的難題，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形五：你的老師比較公平地對待你。

想像一個你認為造成這個情形的主要原因。

老師比較公平地對待你的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來與老師相處，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響與老師相處，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形六：你沒有完成溫習便去考試。

想像一個你認為造成這個情形的主要原因。

沒有完成溫習便去考試的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來溫習考試這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響考試溫習，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|



情形七：你受到老師的懲罰。

想像一個你認為造成這個情形的主要原因。

你受到老師的懲罰的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來與老師相處，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響與老師相處，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形八：你的同學待你好了一些。

想像一個你認為造成這個情形的主要原因。

同學待你好了一些的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來與同學相處，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響與同學相處，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形九：你在學校想與一位同學玩，但他不願意和你一起玩。

想像一個你認為造成這個情形的主要原因。

同學不願意和你一起玩的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來你想與同學玩，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響與同學一起玩，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形十：你能夠毫無困難地完成自己的家庭作業。

想像一個你認為造成這個情形的主要原因。

你能夠毫無困難地完成家庭作業的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來做家庭作業時這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響做家庭作業，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形十一：你的老師和同學認為你非常重要。

想像一個你認為造成這個情形的主要原因。

你的老師和同學認為你非常重要的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|



將來老師和同學對你的看法，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響老師和同學對你的看法，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

情形十二：你在課室內回答問題，同學們嘲笑你的答案。

想像一個你認為造成這個情形的主要原因。

同學們嘲笑你的答案的主要原因完全是與你自己有關，還是與他人或其他情況有關？

|              |   |   |   |        |
|--------------|---|---|---|--------|
| 完全與他人或其他情況有關 | 1 | 2 | 3 | 完全與我有關 |
|--------------|---|---|---|--------|

將來你在課室內回答問題時，這個原因仍然會存在，還是永遠不會？

|      |   |   |   |      |
|------|---|---|---|------|
| 永遠不會 | 1 | 2 | 3 | 永遠都會 |
|------|---|---|---|------|

這個原因只會影響在課室內回答問題，還是也會影響不同的處境？

|            |   |   |   |           |
|------------|---|---|---|-----------|
| 只影響這種特殊的處境 | 1 | 2 | 3 | 也會影響不同的處境 |
|------------|---|---|---|-----------|

16. 請你根據以下科目的成績與同班同學比較。你的成績是比較差，比較好，好得多，還是差不多？

|    | 比較差                      | 差不多                      | 比較好                      | 好得多                      |
|----|--------------------------|--------------------------|--------------------------|--------------------------|
| 英文 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 中文 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 數學 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

17. 總括來說，你與你的同學的關係如何？

☐ 1. 很差      ☐ 2. 差      ☐ 3. 好      ☐ 4. 很好

18. 總括來說，你與你的老師的關係如何？

☐ 1. 很差      ☐ 2. 差      ☐ 3. 好      ☐ 4. 很好

19. 你會否覺得，為將來作好準備，讀書是最佳的途徑？

☐ 1. 從不會      ☐ 2. 很少會      ☐ 3. 間中會      ☐ 4. 經常會      ☐ 5. 時常會

20. 你會否覺得，透過讀書，使你感受到成功的喜悅？

☐ 1. 從不會      ☐ 2. 很少會      ☐ 3. 間中會      ☐ 4. 經常會      ☐ 5. 時常會

21. 你會否覺得，學校做的一切，可以促進你對學習的態度和動機？

☐ 1. 從不會      ☐ 2. 很少會      ☐ 3. 間中會      ☐ 4. 經常會      ☐ 5. 時常會

22. 你會否覺得，為學習而學習，自然會領略到其中的樂趣？

☐ 1. 從不會      ☐ 2. 很少會      ☐ 3. 間中會      ☐ 4. 經常會      ☐ 5. 時常會

23. 總括來說，你對學校的印象是：

☐ 1. 很差      ☐ 2. 差      ☐ 3. 好      ☐ 4. 很好

問卷完，多謝合作。請查看是否全部問題已經作答。

我們日後還需要聽取你對中學的意見。懇請你們能抽出少少時間，與我們見面再談。並請在下面寫上你的地址及電話，作為日後聯絡之用：

地址 \_\_\_\_\_

住宅電話 \_\_\_\_\_ 手提 \_\_\_\_\_

\_\_\_\_\_

謝謝你們的合作。